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SOCIAL NETWORKS, IDENTITY, HEALTH, AND QUALITY OF LIFE AMONG OLDER GAY AND LESBIAN INDIVIDUALS IN RURAL ENVIRONMENTS

Marc Aaron Guest
University of Kentucky, aaron.guest@asu.edu
Author ORCID Identifier:
https://orcid.org/0000-0001-7356-3734
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Dr. John F. Watkins, Director of Graduate Studies

SOCIAL NETWORKS, IDENTITY, HEALTH, AND QUALITY OF LIFE AMONG OLDER GAY AND LESBIAN INDIVIDUALS IN RURAL ENVIRONMENTS

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy
in the College of Public Health
at the University of Kentucky

By

Marc Aaron Guest

Lexington, Kentucky

Co- Directors: Dr. Nancy Schoenberg, Professor of Behavioral Science

and Dr. Elizabeth Hunter, Assistant Professor of Gerontology

Lexington, Kentucky

ORCID: 0000-0001-7356-3734

ABSTRACT OF DISSERTATION

SOCIAL NETWORKS, IDENTITY, HEALTH, AND QUALITY OF LIFE AMONG OLDER GAY AND LESBIAN INDIVIDUALS IN RURAL ENVIRONMENTS

The goal of this dissertation was to explore aging lesbian and gay individuals living in rural communities, in terms of their social networks and the relationships between these networks, identity, health, and quality of life. Guiding the study were three overarching questions. Using a multi-method design, the research was grounded within a socio-ecological context and focused on how structural systems create pathways for health and are affected by social position (intersectionality). Participants (n=25) were recruited from Kentucky (n=20), West Virginia (n=3), and Tennessee (n=2). Thirteen participants self-identified as gay and twelve as lesbian. Findings highlight the complexity of the aging experience and the difficulty in parsing out the influence of a rural location, the aging process, and being a lesbian or gay male, on social network development, identity, health, and quality of life. Findings indicate that rural gay and lesbian individuals develop networks based on need with limited consideration for network members' acceptance of their identity. The findings also indicate that networks are primarily composed of heterosexual members. Social isolation and loneliness remain a pervasive issue in the rural gay and lesbian aging community. Finally, network size does not affect the overall health and quality of life for rural aging lesbian and gay individuals, but identity congruence does. Conclusions point to the greater need for research to understand the factors affecting aging lesbian and gay individuals in rural environments. Opportunities abound for developing further research addressing social isolation among this population and exploring the positive relationship between identity congruence and quality of life. The findings highlight the collective need to continue research into sexual minority aging and rural sexual minority aging.

KEYWORDS: LGBTQ Aging, Social Networks, Rural Health,
Quality of Life, Health Equity

Marc Aaron Guest

(Name of Student)

10/19/2019

Date

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By

Marc Aaron Guest

Dr. Nancy E. Schoenberg
Co-Director of Dissertation

Dr. Elizabeth Hunter
Co-Director of Dissertation

Dr. John F. Watkins
Director of Graduate Studies

08/30/19
Date

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CHAPTER 1: INTRODUCTION

1.1 Research Interest and Research Question

Older adults living in rural environments experience more significant health challenges than those living in urban or suburban environments. These challenges include lack of access to health care facilities, higher poverty rates, lower rates of educational attainment, and less dense social networks, due to physical isolation (Bennett, Probst, Vyavaharkar, & Glover, 2012; Freedman, 2009; Thiede, Brown, Sanders, Glasgow, & Kulcsar, 2017). Marginalized groups, such as the gay and lesbian population, may face greater health inequality in rural areas than their urban counterparts, as they seek to manage their non-hegemonic identity as a sexual minority population (Crenshaw, 1989; Cronin & King, 2010; Fredriksen-Goldsen, Kim, Bryan, Shiu, & Emlet, 2017).

Lesbian and gay individuals report higher rates of disability and diseases compared to heterosexual individuals (Fredriksen-Goldsen, 2016; Fredriksen-Goldsen, 2017; Fredriksen-Goldsen, Kim, Bryan, et al., 2017). Research indicates that as lesbian and gay individuals age, they experience trouble navigating the social and programmatic systems put in place by society to assist older adults (Butler, 2006; Croghan, Moone, & Olson, 2015).

As a population, older gay and lesbian individuals have poorer health outcomes than their heterosexual counterparts. Little information exists about the health status of rural aging gay and lesbian individuals. There is a need to explore the aging process and age-related burdens experienced by aging rural gay and lesbian individuals to address the existing disparities. Through seeking to understand how and why these disparities persist, it becomes possible to develop targeted interventions to improve rural aging gay and

lesbian health. Additionally, there is a need to expand beyond studying lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) aging populations as a group and focus on specific individual sexual identities. I sought to embrace the approach called for by Fredriksen-Goldsen (2016), who extended LGBTQ aging research beyond population breadth and into individual depth of what factors create health inequalities. This dissertation research seeks to build upon my interest in the field and expand our understanding of factors affecting aging lesbian and gay health. There is a clear opportunity to understand further the relationships among individuals' social networks and rural residence, their identity congruence, and their health and quality of life. There is little research conducted with the LGBTQ population that focuses on the role their social networks have in health and quality of life. This dissertation was developed in response to the gaps in understanding relationships among social networks, identity, health, and quality of life of gay and lesbian individuals.

1.2 Dissertation Research

Using a multi-method approach, the goal of this research was to explore aging lesbian and gay individuals living in rural communities, in terms of their social networks, and the relationships among networks, identity, health, and quality of life. Grounded within a socio-ecological context, this research focused on how structural systems create pathways for health, affected by social position (intersectionality). This information will further the knowledge base of rural gay and lesbian aging and lay the foundation for future research to understand and improve the health of aging rural gay and lesbian individuals.

Guiding this study are three overarching questions that developed into three specific aims. These aims seek to extend our current understanding in new directions as we work to improve the lives of aging rural gay and lesbian individuals.

1.3 Overarching Specific Aims and Questions

Aim 1: To explore the influence(s) of rural residence on aging gay and lesbian individuals' social network development.

Question: How does rural residency shape the development of aging gay and lesbian social networks.

Rationale: Gay and lesbian individuals in rural environments face the burden of managing their non-hegemonic identity with a cultural expectation of heterosexuality (Cahill & Makadon, 2017; Cain, 1991). In doing so, they face challenges in forming and maintaining social networks. These challenges can include the development of networks and accessing supportive networks. These individuals may also face the complexity of managing multiple networks based on sexual identity self-disclosure.

Aim 2: To identify and explain the utilization patterns of social networks by rural aging gay and lesbian individuals.

Question: How do aging rural gay and lesbian individuals utilize their social networks?

Rationale: Individuals aging in rural environments have fewer opportunities for developing network alters (ties) than their urban counterparts (Academies, 2006b). Lesbian and gay individuals report fewer alters than their heterosexual peers (Erosheva, Kim, Emlet, & Fredriksen-Goldsen, 2016). It has been demonstrated that as we age, our networks shrink (Carstensen, 2006). With fewer alters, rural aging gay and lesbian individuals may be more affected by shrinking networks over their life span, limiting

their support in older age. These factors may be further complicated by overreliance on urban networks due to the lack of available rural networks. As a result, rural aging gay and lesbian individuals may experience higher rates of social isolation.

Aim 3: To address the relationship of rural aging lesbian and gay individuals' social networks, quality of life, health, and identity.

Question: What is the association between rural aging lesbian and gay individuals' social network, health and their identity congruence and quality of life?

Rationale: Research has indicated that social networks have a powerful influence on quality of life. Social networks also affect the development of identity through exposure to multiple expressions of identity. Marginalized populations, such as lesbian and gay individuals, tend to have smaller, more homogenous networks that can limit the flow of information and resources (Erosheva et al., 2016; Hoy-Ellis & Fredriksen-Goldsen, 2016). The nature of smaller networks may also hinder the expression of non-hegemonic identities. The development of social networks can influence, and is influenced, by the identity an individual develops. An individual's identity will influence what networks he or she is more easily able to access. The networks a person is a part of can influence the type of identity one develops.

1.4 Innovation

This project is one of few that examines older gay and lesbian individuals in rural environments. This work will further expand the interface between gerontological research and social network analysis for marginalized populations (Fiori, Consedine, & Merz, 2011; Rowan, Giunta, Grudowski, & Anderson, 2013; Wienke & Hill, 2013).

1.5 A Note on Terminology

Terminology is powerful. Marginalized communities often use specific language to describe the community (Allport, 1979). Often there are both internally and externally used terminology to describe similar concepts. In-community terminology can often only be appropriate for internal community use (Blumenfield, 2010). The acceptance of in-community terminology by external groups can validate the experience of the marginalized community. The switch from describing same-sex attracted individuals from 'homosexual' to 'gay', and eventually 'gay' and 'lesbian', allowed for the de-medicalization of the identity and the integration of these identities into the culture.

Throughout this dissertation, I apply and operationalize community terminology in a standard way (Gendron, Welleford, Inker, & White, 2016). As 'gay' is used to describe both men and women, I specify throughout the document 'gay' when discussing men attracted to men. Conversely, as lesbian only refers to gay women, or women attracted to women, it would be repetitive to use lesbian women; therefore, I use 'lesbian'. When referring to the community as a whole, I use Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, or LGBTQ. In doing so, I recognize the difference between the inherent division within this terminology of referring to both sexual identity (LGBQ) and gender identity (TQ). The term, LGBTQ, may not represent specific studies discussed in this research but is used for consistency.

Within this dissertation, 'aging' refers to the process of growing older. Specifically, aging refers to the multi-dimensional process of changes that occur within and around the individual on the biological, physical, mental, and social levels as time

passes (Fuller-Iglesias, Smith, & Antonucci, 2019). For this dissertation, 'older' refers to those individuals age fifty and above, for reasons discussed in chapter four.

1.6 Outline of Dissertation

In chapter one, I sought to provide my justification for undertaking this study. I aimed to situate the research into the contemporary call for additional research on the aging LGBTQ. Chapter two provides a literature review that integrates the experiences of gay and lesbian aging and rural aging with the influence on health, along with a discussion of the roles that identity congruence and social environments have on health. Chapter three discusses the conceptual framework underpinning the research and concludes with a description of a guiding model for understanding the influence of networks on rural lesbian and gay aging individuals. In chapter four, I discuss the design of the study. Chapters five and six provide the findings and discussion of the findings. Chapter seven, the concluding chapter, discusses the limitations of this study, looks toward the future of research on aging LGBTQ populations, and provides recommendations for moving forward

CHAPTER 2: BACKGROUND AND SIGNIFICANCE

There is limited research examining the specific health outcomes of aging lesbian and gay individuals. Even less research exists that uses a network approach with this population. This chapter will explore the literature on gay and lesbian aging. The chapter then situates the gay and lesbian aging experience within the rural environment before discussing multi-directional influences among social networks, identity, health, and quality of life. Collectively, this literature review aims to provide a background on the role of health, identity, and place within the lives of aging lesbian and gay individuals.

2.1 LGBTQ History

Although sexual-minority communities are often grouped, their social and political experiences vary greatly, with the social and political movements of lesbian and gay individuals representing the extreme of these diverging experiences (D'Emilio, 2000). Throughout modern and pre-modern Western history, same-sex attraction has been well documented (Boswell, 1995). In most instances, while same-sex male attraction was allowed and perhaps displayed, same-sex female relationships were often viewed as being unnatural. Relationships among individuals and groups were fluid. The rise of organized religion throughout Europe ended much of the public displays of same-sex affection (Boswell, 1995). Same-sex attraction and opposite-sex attraction were not defined during this period. Foucault (2012 [1967]) argues that our present conceptualization of heterosexuality and homosexuality are a result of late nineteenth-century thinking that sought to develop dyadic power structures. Foucault's (2012 [1967]) argument highlights that same-sex sexual and romantic relationships were not historically viewed in the same manner as our present description. Rather than being

static identities, sexuality is fluid (Foucault, 2012 [1976]). In recent years, there has been a shift back to these ideas. The rise of the transgender, queer, and asexual movements and identities serve as examples of this movement toward sexual fluidity (Boellstorff, 2007; Manalansan, 2016).

Until the late twentieth century in the United States, homosexuality, eventually gay and lesbianism, was viewed as abnormal. Even so, gay men were able to establish social circles in what became known as the Mattachine Society. These "clubs," which originated in New York City in the 1950s, were small intimate gatherings hosted in private apartments throughout urban areas (D'Emilio, 2000). Even though gay men were some of the first to organize, lesbianism became more widely socially acceptable during this time. Changing cultural attitudes in the United States, spearheaded by the Protestant and Catholic Church, resulted in the "moral revolution" that saw gay and lesbian identities become socially unacceptable. Arguably, this trend continued until the early 2000s (Rimmerman, 2008).

The marginalization of homosexual identity resulted in the rise of LGBTQ social and political organizations in the 1950s and 1960s. It also saw the passing of sodomy laws banning same-sex behavior and the medicalization of homosexuality as a treatable "illness" (D'Emilio, 2000). During this period, no distinction existed between lesbianism and gay identity: instead, there was a grouping of identities under the umbrella of "gay" (Rimmerman, 2008). The 1970s and 1980s saw the de-medicalization of homosexuality as a mental and physical illness while a genuine illness, HIV/AIDS, began to ravage the gay population. It was during this period, mirroring the second-wave feminist movements, that lesbian individuals began to demand equal treatment and recognition

within the gay rights movement (Hekman, 1991). The LGBTQ social/political/cultural movements historically dominated by the needs and messaging of white gay men, began a trend that continues today. The HIV/AIDS epidemic further solidified the separation of gay and lesbian political and social movements as the issues each faced began to differ (Ramirez-Valles, Dirkes, & Barrett, 2014).

The 1990s saw a more unified approach by lesbian and gays as the movement expanded from gay and lesbian rights to LGBTQ rights. This period also saw the ruling of sodomy laws to be unconstitutional, the first attempts for civil unions of same-sex couples, and the rise of discriminatory laws targeting LGBTQ people driven by the far-right conservative movements (D'Emilio, 2000; Rimmerman, 2008; Wald, 2000). The movements of the 1970s to the 1990s saw the first steps toward the equalization of rights through the passing of anti-discrimination laws (Bowleg, 2017; Halkitis, 2012).

LGBTQ movements for equal rights received varying levels of success. At each turning point, new avenues for expression and recognition were achieved; however, new challenges and opportunities also developed. Current cohorts of older lesbian and gay individuals experienced vastly different social and political environments during their formative years. The historical changes experienced in their lives highlight one way the determinants of wellness accumulated throughout life to affect health in older age (Dannefer, 2003). The experiences of gay and lesbian individuals through time around access to health services, social acceptability, and ability to self-identity continues to affect their quality of life and health long after laws and culture have been changed. The differing cultural acceptance of lesbian and gay identities and recognition of lesbian and

gay social and political movements help explain the varying social experiences of older age (Donaldson & Horn, 1992; Ryder, 1965).

Although nominally represented as one group, the experiences and health of older lesbian and gay individuals are vastly different. At the same time, gay and lesbian individuals are not immune to the normal processes and diseases of aging (Butler, 2006; Gratwick, Jihanian, Holloway, Sanchez, & Sullivan, 2014). Likewise, aging gay and lesbian individuals are not excluded from the impact that geography has on health. Despite an ongoing emphasis on the "urban queer," the experiences of rural LGBTQ individuals should not be overlooked (Gray, 2009; Herring, 2007). There is a need to examine and celebrate these experiences.

2.2 LGBTQ Aging and Health

No adequate research exists to date on the health needs of the aging LGBTQ population, despite the expressed need for further work to address quality of life and health indicators within this population (Fredriksen-Goldsen & Kim, 2017; Sell, 2017; Stall et al., 2016). In the coming decades, more LGBTQ individuals than ever before will enter old age. Yet, we know a limited amount regarding the experiences of aging LGBTQ persons. It is known that LGBTQ aging individuals face unique challenges related to health care access, service delivery, and social support due to a lifetime of homophobia and discrimination. Indeed, due to the limited data, it is challenging to distinguish the particular experiences of lesbian and gay individuals from the large lesbian, gay, bisexual, transgender, and sexual minority community.

Despite continued interest in the growing LGBTQ aging population, little is known regarding the exact size of the population. Conservative estimates suggest there

are between 1.75 and 4 million LGBTQ individuals over the age of sixty living in the United States, a number expected to double by 2060 (Choi & Meyer, 2016; Project, 2016). These individuals represent three distinct cohorts that came of age before and during the process of LGBTQ individuals gaining social recognition and civil liberties under the laws of the United States. These cohorts experienced the criminalization and decriminalization of homosexuality as an identity and behavior, and the legalization of marriage for lesbian, gay, and queer couples (D'Emilio, 2000; Rimmerman, 2008; Wald, 2000).

The older adult LGBTQ community represents three distinctive birth cohorts: the Greatest Generation (1901-1924); the Silent Generation (1925-1945); and the Baby Boom/Rainbow Generation (1946-1964). Each of these cohorts experienced distinct events in their lives specific to LGBTQ individuals that shaped their health and quality of life in old age (Fredriksen-Goldsen, Bryan, et al., 2017; Fredriksen-Goldsen, Kim, Bryan, et al., 2017). The Greatest Generation came of age during a period in which the first of the gay social organizations began to form and in which lesbianism became acceptable in popular high society. The individuals of the Greatest Generation saw the rise of the 1920's and 1930's moral movement, mostly associated with temperance and the Hollywood Production code, which resulted in backpedaling the social gains of lesbian and gay individuals (D'Emilio, 2000; Rimmerman, 2008). The Silent Generation experienced a near-removal of homosexuality from being mentioned in American society (Fredriksen-Goldsen, Bryan, et al., 2017). There was little opportunity for individuals of this age to mobilize. The Baby Boom Generation is marked by experiencing and leading the greatest leaps forward of LGBTQ rights, including civil unions, marriage, and the de-

medicalization and constitutional repeal of sodomy laws (D'Emilio, 2000; Rimmerman, 2008). The Baby Boom Generation has been referred to as the "Rainbow" Generation because of its role in the advancement of LGBTQ rights (Fredriksen-Goldsen & Kim, 2017). At the same time, the Rainbow Generation saw the greatest infighting among members of the LGBTQ community, including the social and political split between lesbian and gay individuals (Rimmerman, 2008).

LGBTQ individuals face a host of health inequalities (Fredriksen-Goldsen, Bryan, et al., 2017; Fredriksen-Goldsen, Kim, Bryan, et al., 2017; Orel & Coon, 2016). Overall, LGBTQ individuals are at a higher risk of social isolation, have higher rates of disability, more psychological distress, weaker immune systems, lower than average incomes and standard of living, fewer opportunities for advancement; they utilize fewer social services and face longer lifetime discrimination and victimization than non-LGBTQ individuals (Croghan et al., 2015; Simoni, Smith, Oost, Lehavot, & Fredriksen-Goldsen, 2017). As a result, older LGBTQ individuals face life histories filled with extensive maladaptive determinants of health relating to the legal and cultural treatment of their identities. Lesbians have higher rates of disability, cardiovascular disease, obesity, and poorer general health than non-LGBTQ individuals (Kim & Fredriksen-Goldsen, 2016; Morin, 1977; Shiu, Muraco, & Fredriksen-Goldsen, 2016). Gay men have a higher risk of cancer and HIV and are twice as likely to live alone than non-LGBTQ individuals (Fredriksen-Goldsen, Kim, Shiu, Goldsen, & Emlet, 2015; Lyons, Croy, Barret, & Whute, 2015). Racial minority aging gay and lesbians face exacerbated expressions of these disparities (Fredriksen-Goldsen et al., 2015). Bisexual individuals have been shown to have somewhat worse health outcomes than their heterosexual counterparts. However,

bisexual individuals can more easily "pass" within the heterosexual community and utilize this identity for services (Fredriksen-Goldsen, Kim, Shui, & Bryan, 2017). While transgender individuals report some of the most significant health disparities among any marginalized group and often included within the broader LGBTQ community, transgender individuals represent a gender identity, not a sexual identity (Fabbre, 2017).

Differences in health outcomes among members of the LGBTQ community cannot simply be broken down by sexual identity. However, examining health outcomes by sexual identities, such as gay and lesbian, provides a basis for furthering understanding of these phenomena. Doing so answers a need to extend understanding of the experiences of aging lesbian and gay individuals from one of breadth to depth. Moving beyond categorical groupings such as LGBTQ into understanding the unique experiences and needs of lesbian, gay, bisexual, transgender, and queer individuals is one way that meaningful progress can occur in reducing health inequality.

2.3 Identity Formation & Congruence

Identity is a complex concept, yet vital to understanding the social world. Identity is defined as "the distinguishing character or personality of an individual" (Meriam-Webster, 2019). According to Erikson (1950; 1998), identity provides individuals with a sense of well-being. An individual who develops his or her identity will feel a sense of direction in life and of being at home within one's body. Individuals who have developed their identity will have a sense of mattering to those around them.

Identity develops throughout one's life span, particularly in early life (Soenens & Vansteenkiste, 2011). The formation of identity is influenced by the norms of a particular society and culture. An individual is a composite of multiple, at times competing,

identities that form their unique personalities. It is vital that, as scholars, we seek to understand individuals in terms of their multiple competing identities.

Intersectionality seeks to explain how individuals make sense of their multiple identities and the associated benefits and oppression that stem from these identities. Individuals who identify as LGBTQ must navigate a complex social web of identification and identity formation (Crenshaw, 1989). Intersectionality serves as a way of understanding how individuals identify themselves in relation to others and the social context in which they adopt particular identities.

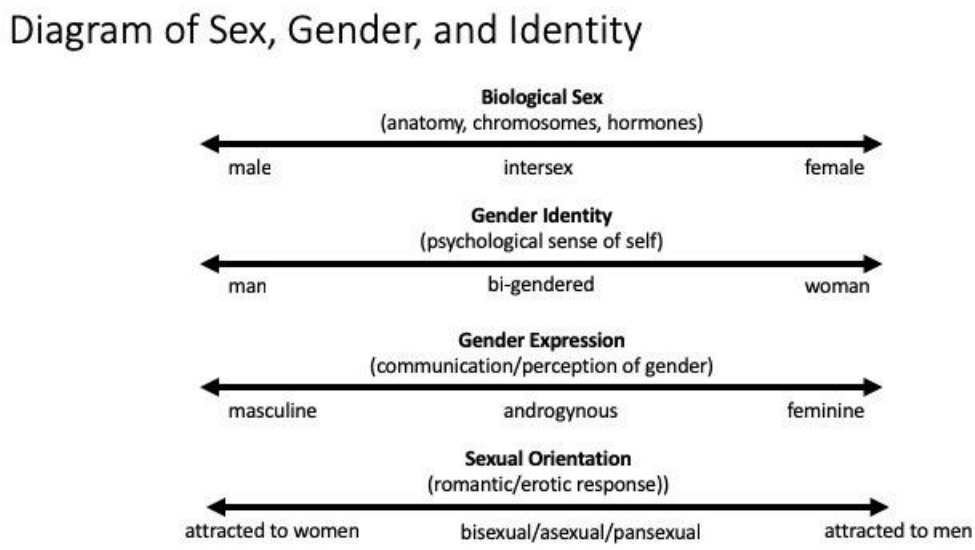
2.3.1 Gay and Lesbian Identity Formation

Multiple factors can affect the development of a gay or lesbian identity. Understanding the formation of gay or lesbian identity requires knowing the differences between sex, gender, and sexual identity.

Sex refers to the biological or physiological characteristics of individuals – male or female (Meyer, 2011; Weber, 1998). Gender, on the other hand, refers to the socially-constructed roles, behaviors, or attitudes individuals take on as part of their placement within a culture (Meyer, 2011; Sharp, 2005; Weber, 1998). Gender representation occurs on a continuum of masculine-to-feminine traits (Figure 2.1). Individuals of either sex can take on a variety of gender identities throughout their lives. Together, sex and gender influence an individual's sexual identity.

Sexual identity/orientation (also known as sexuality) is composed of a tripartite framework: sexual identity (an individual's own perception of self), sexual attraction (who an individual is attracted to), and sexual behavior (who an individual engages in intercourse with) (Fredriksen-Goldsen, Kim, Bryan, et al., 2017; Hansen, 1982).

Figure 2.1: Diagram of Sex, Gender, and Identity



(Adapted from the Center for Gender Sanity, n.d.)

Sexual identity is often classified as gay (a man attracted to other men), lesbian (a woman attracted to other women), bisexual (a person attracted to the same gender or another gender), or heterosexual (a person attracted to another sex). Individuals' sexual attractions and behaviors often match their sexual identity, although variations can exist. For example, a man who identifies as heterosexual (referring to individuals who are attracted to those of the opposite sex) may still have sexual attraction and engage in sexual behavior with other men.

Individuals must adopt a gay or lesbian identity through a process of self-identification and self-realization. There is limited research on the development and acceptance of lesbian or gay identities. Much of the research on the formation of lesbian or gay identities focuses on societal rejection of homosexual identities (Cain, 1991; Fabbre, 2015; Mayfield, 2001). The research focused on how gay or lesbian identities have come to be accepted by a broader society. Some researchers, such as D'Emilio (1983), argue that it is only through demographic and economic transitions are gay or lesbian identities allowed to form (Valocchi, 2017). The movement away from persons as capital allowed families to no longer be the primary unit of production and thus for alternative identities. Others, such as Boswell (1995), have argued the notion of the eternal homosexual, that throughout history, gay and lesbian identities held varying levels of importance and acceptability. It is noteworthy that those who follow D'Emilio's approach reject the notion of the eternal homosexual (1983).

Cass (1979, 1984, 1987) is one of the few scholars who attempted to conceptualize gay and lesbian identity formation. The Model of Gay & Lesbian Identity Formation (Figure 2.2) follows the model first laid out by Erikson (Cass, 1979, 1984;

Erikson, 1950). According to Cass, individuals move through a bi-directional lesbian and gay identity formation process. In the beginning, individuals are in a place of identity confusion, as they recognize their identity as non-heterosexual. Through a process of identity comparison, the individual recognizes the behaviors that align with a lesbian or gay identity. Individuals then enter into a state of identity tolerance that allows them to move from identity acceptances to identity pride, and finally identity synthesis, where they integrate their lesbian or gay identity with other aspects of their lives. In this model, it is ideal that individuals follow a forward trajectory. The model, however, recognizes that due to societal pressure, individuals may backslide or become stuck at any point in the formation of a gay or lesbian identity and not achieve identity synthesis. The fear of identification as a gay or lesbian individual or the self-loathing felt by lesbian or gay individuals, identified as 'gay shame' by Kaufman and Raphael (1996), is the result of a heterosexist hegemonic society.

Scholars agree that the development of a lesbian or gay identity is a life-long process (Cass, 1987; Fredriksen-Goldsen, Kim, Bryan, et al., 2017). Throughout an individual's life, there may be times in which that person may reject the lesbian or gay identity out of fear or need. Later on, these same individuals may once again enter into a state of identity synthesis. This process is also known as "coming out" and refers to an individual's self-identification as lesbian or gay (Kaufman & Raphael, 1996). Lesbian or gay individuals are constantly "coming out" as they enter into new social situations and new environments. Just because an individual is out in one situation or one place does not mean he or she will identify to the same degree in the next situation.

Figure 2.2: The Model of Gay and Lesbian Identity Formation

(Cass, 1987)

Throughout the identity formation process, conflict can arise, including the delay of acceptance of identities or a pause in the identity development process (Erikson & Erikson, 1998). Individuals may then become stuck in one stage of identity formation, unable to move forward. In the case of lesbian or gay individuals, this conflict may result in not recognizing their gay or lesbian identity or recognizing it, but opting not to disclose it. The goal of any identity information process is to reach identity congruence, or what Cass refers to as identity synthesis (Cass, 1984; Soenens & Vansteenkiste, 2011). Identity congruence occurs when one's intrinsic and extrinsic identity agree. Individuals who have reached identity congruence are thought to have reached optimal self-functioning. Individuals in a state of identity congruence are better equipped to meet their basic needs (Soenens & Vansteenkiste, 2011). Conversely, individuals who are in a state of conflict, and whose extrinsic and intrinsic identities do not agree, are thought to have poorer health outcomes, be under greater societal pressure, and unable to meet their basic needs (Maslow, 1962; Soenens & Vansteenkiste, 2011).

2.4 Place Attachment

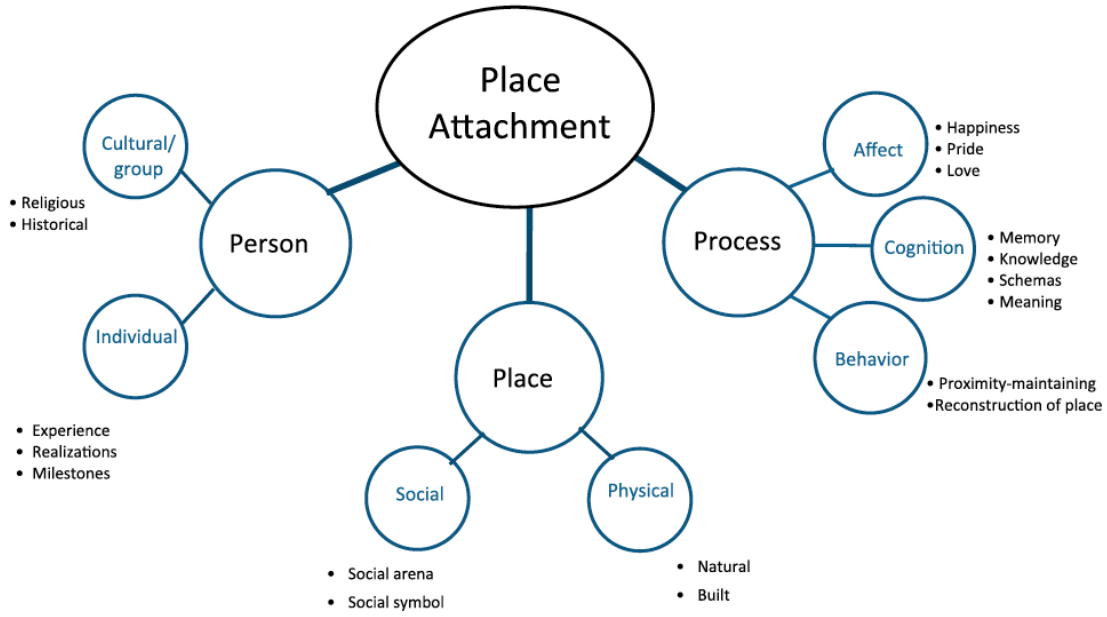
Place attachment refers to how strongly an individual feels a connection to a location. The model of place attachment captures the emotional and symbolic relationships individuals form with particular locations (Brown, Raymond, & Corcoran, 2015; Rowles, 1980). Individuals exist within an intersection of multiple environments: the built, physical, or social. Place attachment primarily focuses on the built and physical environment (Cutchin, 2000b; Cutchin, 2001; Kyle & Chick, 2007). Place attachment is not time-dependent; an individual does not have to be in a place for a certain period of time to develop an attachment.

Place attachment can be envisioned as a tripartite model consisting of a person, place, and process (Figure 2.3) (Scannell & Gifford, 2010). The model proposed by Scannell & Gifford (2010) emphasizes the role of the person. Individuals must form a strong cultural or group experience bond with a location. These bonds may include the association of the location with specific life-course transitions (Vianen, 2018). The individual can then identify the location as a place through the lens on a social, physical, or psychological level. The social level consists of associating a specific geographic location with a social or environmental event (Academies, 2006b). The physical level requires recognizing the built or natural environment as the primary feature of attachment (Academies, 2006a).

In the last stage of the place-attachment model, the individual processes the encoding of the location as somewhere special, and a place attachment has been made. The process requires the association of emotion with a place, as well as the mapping of an individual meaning to an area (Afshar, Foroughan, Vedadhir, & Tabatabaei, 2016; Cross, 2015; Jonsson & Walter, 2017). From here, an individual's behavior will be aligned to recognize the importance of the location by remaining in proximity to the location or seeking to reconstruct the location at a place elsewhere, through the transference of attachment.

Lesbian or gay individuals may have challenges in developing place attachment due to homophobic beliefs and activities at specific geographic locations (Davies, Lewis, & Moon, 2018). For example, while children and adolescents often form strong ties to their home, lesbian or gay youth may not, due to fear of parental response to their sexual identity (Austin, Nelson, Birkett, Calzo, & Everett, 2013; Garofalo, Mustanski, &

Figure 2.3: Model of Place Attachment



(Scannell & Gifford, 2010)

Donenberg, 2008). Aging lesbian and gay individuals may have limited their attachment to specific places due to unpleasant experiences or a fear of being outed and forced to move (Daley et al., 2017).

Researchers argue that individuals in rural locations form a more significant connection to their environment because of a greater appreciation of nature; however, this appears to be an oversimplification (Hernández, Martín, Ruiz, & Hidalgo, 2010; Wiles, Leibing, Guberman, Reeve, & Allen, 2012). Instead, it may be the case that pervasive notions of rural exceptionalism created this false belief in a more significant connection to place (Afshar et al., 2016; Jonsson & Walter, 2017; Westin, 2016). Thus, individuals in rural environments may feel a greater need to report a connection to their environment than exists.

It is necessary to address each of the three domains – person, place, and process – for an individual to develop place attachment (Scannell & Gifford, 2010). As individuals develop their sense of place attachment within a region, they become more likely to act in defense of their sense of place. Within rural environments, defending the place may include working to prevent encroachment by development or engaging in sustaining the status quo (Hernández et al., 2010). For lesbian or gay individuals, it may mean identifying locations where they are free to be themselves, such as local clubs or within their residence. Through identifying these locations, individuals become free to express themselves openly.

2.5 Rurality and LGBTQ Aging

Rural areas are constructed through geographic, political, and socio-cultural understandings. There is not one readily accepted definition of what constitutes a ‘rural’

environment (Ratcliffe, Burd, Holder, & Fields, 2016; Rowles, 1988). Rural environments can be constructed and deconstructed over time (Halfacree, 2003; Scales, Satterwhite, & August, 2016).

The first way rural environments can be constructed is in a geographic sense. Primarily, a population and economic-based approach, geographic understandings of rural environments, and rurality focus on measures such as total population, land area, and travel time (Ratcliffe, Burd, Holder, & Fields, 2016). This understanding of rurality emphasizes modifiable factors that could eventually be altered to the degree that a 'rural' environment becomes 'urban' (Bernt, 2018). The second way rural environments can be constructed is through political understandings (Golant, 2003). Rural is an ascribed category. Through the political process, physical tracts can be ascribed as 'rural' or 'urban'. Areas may be ascribed a rural attribute for purposes of governance, project funding, or marginalization (Eller, 2008; Ratcliffe, Burd, Holder, & Fields, 2016). Third, rural areas can be constructed through a socio-cultural understanding. This understanding emphasizes the role that culture has in the development of a rural identity and the association of specific attributes, behaviors, and beliefs with ascribed 'rural' environments (Bascom, 2001; Hoppe, 2018). A socio-cultural understanding of rural environments allows for things to be viewed and treated as rural without the associated political or geographic designation.

Populations located in rural geographic environments experience some of the most extreme health inequalities (Caldwell, Ford, Wallace, Wang, & Takahashi, 2016; Kenny et al., 2013; Thiede et al., 2017). Burdens include lack of access to health care facilities, higher rates of poverty, lower rates of educational attainment, and smaller

social networks due to physical isolation (Bennett et al., 2012; Kenny et al., 2013; Thiede et al., 2017). Rural Kentucky represents extremes of these circumstances through high rates of poverty, lower rates of education, and a high burden of disease. The cumulative effects of these disadvantageous factors can lead to a more difficult aging experience.

Rural geographic environments can also provide several benefits for improved health outcomes. Rural areas have been shown to increase physical activity, such as walking (Jansen, Ettema, Kamphuis, Pierik, & Dijst, 2017). Nature and 'green' environments have also shown to have a positive effect on health (Cole, Triguero-Mas, Connolly, & Anguelovski, 2019). Individuals in rural environments may have access to greater supportive family and friends' networks (Rowan, Giunta, Grudowski, & Anderson, 2013). Rural environments should not be viewed as entirely disadvantageous to health. Rural environments have several assets that can assist in the aging experience.

2.5.1 Aging in Rural Environments

Geographic locations can increase the challenges of aging for a gay or lesbian individual. Location is identified as a critical social determinant of health (Cutchin, 2000a; Marmot, 2005; Marmot & Allen, 2014; Scribner, Simonsen, & Leonardi, 2016). Older adults are particularly susceptible to the challenges of rural environments because of a potential lack of appropriate and accessible health services (Golant, 2003; Hartley, 2004). Despite the obstacles, there is a strong preference for aging-in-place. For older adults in rural communities, this might require novel innovations to help maintain a good quality of life, safety, and health. Rural aging gay and lesbian individuals' health disparities can be exacerbated in these environments (Rowan et al., 2013; Wienke & Hill, 2013).

Cultural and societal biases regarding homosexuality may be amplified in rural environments, resulting in further marginalization of sexual minority populations (Rowan et al., 2013; Wienke & Hill, 2013). As discussed by Gray (2009), the lack of positive reinforcement of sexual minority identities can confuse LGBTQ identity. Historically, there has been little attempt by the broader LGBTQ movement to represent and address the needs of the rural LGBTQ population (Herring, 2007). Assumptions regarding heterosexuality and participation in religion can further result in the alienation of LGBTQ individuals. As a result, the quality of life and health of lesbian and gay individuals in rural environments may be negatively impacted.

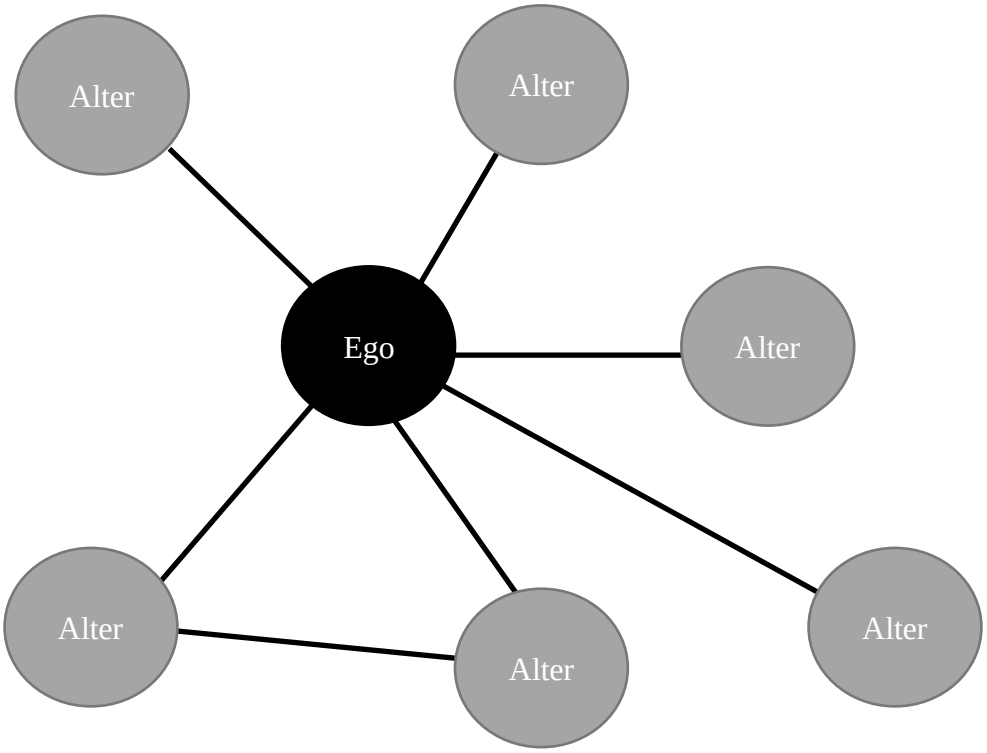
The quality of life and health of aging rural gay and lesbians may be affected by the increased rates of social isolation. Social isolation is an emerging health threat facing older adults, as it relates to mental and physical deterioration (Cacioppo, 2011; Nicholson, 2009). Presently, there exist fewer opportunities for the development of social networks in rural environments (McGovern, Brown, & Gasparro, 2016). Older lesbian and gay individuals face an additional burden of identifying social networks due to limited interested members in their community and distance from urban LGBTQ groups providing a critical mass of individuals with whom they might affiliate. Rural aging gay and lesbian individuals are at a higher risk of social isolation and of not being able to access aging resources (Fredriksen-Goldsen, Bryan, et al., 2017). One way to understand an individual's social isolation and access to information and services is through social networks (Adams & Tax, 2017; Burholt, Windle, Morgan, & team, 2017).

2.6 The Social Environment and Networks

Social networks represent interactions and relationships among individuals that occur within the social environment or the socio-cultural context (Academies, 2006b; Bromell & Cagney, 2014). It is necessary to define social network concepts: ego and alter. The ego is the individual the network is built around; it is the key individual and the others in the network are the alters. The alters represent the people who interact with the ego. The alters can interact with each other, as well as with the ego. Interactions may be unidirectional or bidirectional (Perry, Pescosolido, & Borgatti, 2018). The strength and support provided will vary from alter to alter (Figure 2.4).

While geography influences everyone's social networks, issues of the distance between individuals can be influential in rural environments. Social networks link people to their health records, resources, and knowledge, as well as increase social capital (Alia, Freedman, Brandt, & Browne, 2014; Smith & Christakis, 2008). Rural individuals may have fewer opportunities to develop multifaceted networks, but may have more dispersed networks due to fictive kin relationships (Academies, 2006b; Allen, Blieszner, & Roberto, 2011; Keller-Cohen, 2015). In the case of lesbian or gay individuals, the conflict between multifaceted networks composed of those who do and do not accept homosexuality may result in individuals not recognizing gay or lesbian identity, due to lack of exposure to other gay or lesbian individuals or fear of negative feedback. Individuals who do not disclose their gay or lesbian identity may have limited opportunities to locate affirming individuals or locations for fear of being identified or outed. Individuals who are in a state of identity congruence are more able to develop integrated and supportive social networks.

Figure 2.4: Example of an Undirected Egocentric Social Network



2.6.1 Homophily

Social networks tend to be homogenous, where individuals associate with those who are similar to them (Berry, Blonquist, Pozzar, & Nayak, 2018). The level of homophily may vary, but individuals will navigate to those people who share common traits or features (Perry et al., 2018). In some cases, individuals will develop networks that are purposefully homogenous with the expressed goal of excluding others (Shuster, 2018). In general, urban aging gay and lesbian social networks are more homogenous and smaller than non-LGBTQ social networks (Erosheva et al., 2016; Fredriksen-Goldsen, Kim, Bryan, et al., 2017; Hoy-Ellis & Fredriksen-Goldsen, 2016). While aging gay and lesbian social networks have been shown to contain similar altar types, such as confidantes, friends, and family, as heterosexual individuals, the number of these ties are thought to be fewer than heterosexual individuals. Transgender social networks also tend to be homogenous but are much smaller than gay and lesbian social networks. Bisexual networks are the most heterogeneous and diverse (Erosheva et al., 2016). No research could be found exploring rural gay and lesbian social networks.

2.6.2 Social Networks and Social Support

As proposed by Antonucci (2014), individuals develop social networks to aid in aging throughout the life span, but with particular attention to later life. The investment in social relationships among the network has the expressed goal of creating a process of reciprocity in which individuals provide formal and informal support to those within their network (Antonucci, Ajrouch, Webster, & Birditt, 2017; Lin, 1999). The desired goal is a situation in which individuals can call upon others in their network when needed.

The ability of gay and lesbian networks to provide resources and benefits may be reduced due to having fewer people in their networks and thus less social capital. This provides the opportunity to delve deeper into understanding aging rural gay and lesbians by examining the impact that social environments and the resulting social support may have on their quality of life and health.

2.7 Health and Quality of Life

Health is a significant driver in the development and maintenance of social networks. Individuals in better health can more easily move through the social environment and actively work to reduce social isolation. Health is the state of "complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1946). Health is a multi-pronged concept that takes into consideration someone's overall physical, mental, and social status (Minkler, 1989).

Quality of life (QOL) is a multifaceted idea (Haas, 1999). What constitutes a high or low quality of life varies by person (Ferrans, Zerwic, Wilbur, & Larson, 2005). Quality of life should be viewed on an individual level based on personal expectations, including social and physical aspects of life (Ferrans et al., 2005; Hay & Chaudhury, 2015; Mandzuk & McMillan, 2005). Although health is one aspect, quality of life differs from health-related quality of life, which emphasizes well-being through time and freedom from disease and disability (Haas, 1999; Lawton et al., 1999). Health-related quality of life emphasizes health as the primary driver of quality of life, versus being only one domain. For rural aging lesbian and gay individuals, health and quality of life can be

negatively impacted because of geographic residence, history of marginalization, and limited access to networks.

2.8 Conclusions

Limited data are available for examining the status of rural LGBTQ populations as a whole, or specifically, the aging population (Butler, 2017). Data that exist are available only in aggregate for the total LGBTQ population, not by geographic location. Little to no data exist relating to the impact of rural identity and egocentric social networks on the LGBTQ population (Erosheva et al., 2016).

Taking the initiative from Fredriksen-Goldsen and Kim (2017), this dissertation seeks to add to the literature through examining the relationships of identity, place (rural), networks, health, and quality of life among aging lesbian and gay individuals. In particular, this work seeks to better understand an often-overlooked segment of our aging population, rural gay and lesbian individuals, while also providing depth to our understanding of LGBTQ aging.

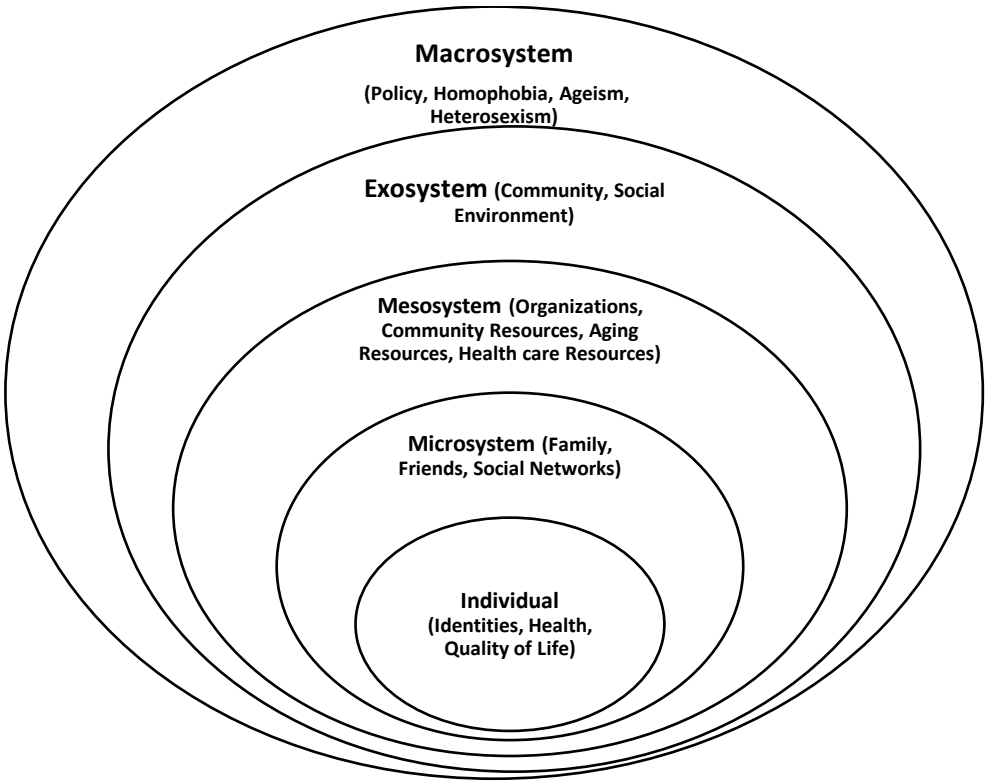
CHAPTER 3: CONCEPTUAL FRAMEWORK

This chapter provides an overview of the theoretical concepts that guide this dissertation. An overview of the ecological perspective is provided to recognize the role of societal systems in the research. The LGBTQ Health Equity Model seeks to add the specific experiences of aging lesbian and gay individuals to the ecological perspective.

3.1 The Ecological Perspective

This research is guided by an ecological model (Brofenbrenner, 1994; Moore, 2014). Bronfenbrenner's Socio-Ecological Model (SEM) provides a guide for understanding an individual's development and understanding their health through the broader societal and ecological systems in which they participate (Figure 3.1). The SEM includes attention to the individual's interactions and forces that influence the development of social capital (Coleman, 1988; Lin, 1999; Sampson & Graif, 2009). Noteworthy for the aging gay and lesbian population, SEM acknowledges the cultural and political processes at play in affecting an each person's place within all aspects of society (Brofenbrenner, 1994; Krieger, 2008). The model recognizes the complex and multiple identities individuals have and how they influence resources. According to Bronfenbrenner (1994) and Moore (2014), this broader macrosystem impacts internal embedding, while institutionalizing homophobia throughout the socio-ecological system, including health, development, and quality of life. The SEM allows for examining how individuals influence others and are influenced by the systems surrounding them. These can include family, community, health, education, and legal systems.

Figure 3.1: Socio-Ecological Model



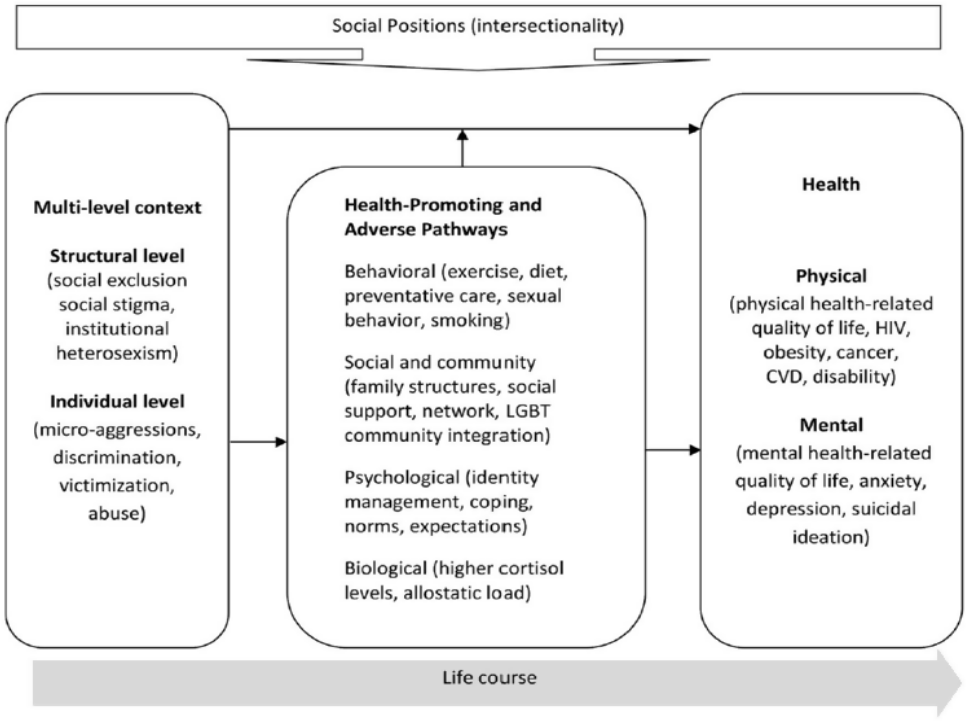
Although indispensable for understanding how societal systems influence individuals, SEM is not without limitations. The SEM is not explicit in how social networks and ties could provide for resilience in navigating the ecological levels (Christensen, 2016). However, the LGBTQ Health Equity Model presents one way of understanding how the ecological system can specifically influence aging lesbian and gay individuals' navigation of different ecological systems.

3.2 LGBTQ Health Equity Model

The LGBTQ Health Equity Model identifies how the structural system influences health across the life span through the creation of health-promoting and health-adverse pathways (Fredriksen-Goldsen, Simoni, et al., 2014). Moving beyond the limited existing frameworks for understanding LGBTQ health, the LGBTQ Health Equity Model (Figure 3.2) includes an emphasis on the influence of an individual's intersectional place (e.g., marginalized, hegemonic, or somewhere in between) on health across that person's life span (Fredriksen-Goldsen, Bryan, et al., 2017; Fredriksen-Goldsen, Simoni, et al., 2014; Wallerstein & Duran, 2010). The model examines the way context influences the LGBTQ individual from structural and individual experiences and thus promotes or prohibits healthy activity and positive health outcomes.

The LGBTQ Health Equity Model recognizes the impact of being LGBTQ and how that can shape the structural context of the ecological environment in which individuals exist. Unlike SEM, that has an emphasis on the individual in context, the LGBTQ Health Equity Model takes into consideration the direct role groups have in shaping the environment and experiences. This model emphasizes how an intersectional

Figure 3.2: Fredriksen-Goldsen's LGBTQ Health Equity Model



(Fredriksen-Goldsen, Simoni, et al., 2014)

place can moderate a single individual's exposure to societal and individual multi-level context, health-promoting and health-adverse pathways. Simultaneously, the model provides a way to see how these societal and individual multi-level contexts provide for these pathways that influence overall health for LGBTQ individuals. Noting the importance of history and experiences, the model connects all of the domains across a person's life span.

In short, the LGBTQ Health Equity Model emphasizes the role of an accumulated disadvantage over the life span, due to the interactions between identity and the social determinants of health acting upon the individual. As described by the World Health Organization (2019) and formulated by Marmot (2005), the social determinants of health can be viewed as:

> … the conditions in which people are born, grow, live, work and age…shaped by the distribution of money, power, and resources at global, national and local levels…[and] are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries (WHO, 2019).

The LGBTQ Health Equity Model is one of the first models that recognizes the role that

2intersectional identity, with an emphasis on how sexual identity affects mediating and moderating social determinants of health.

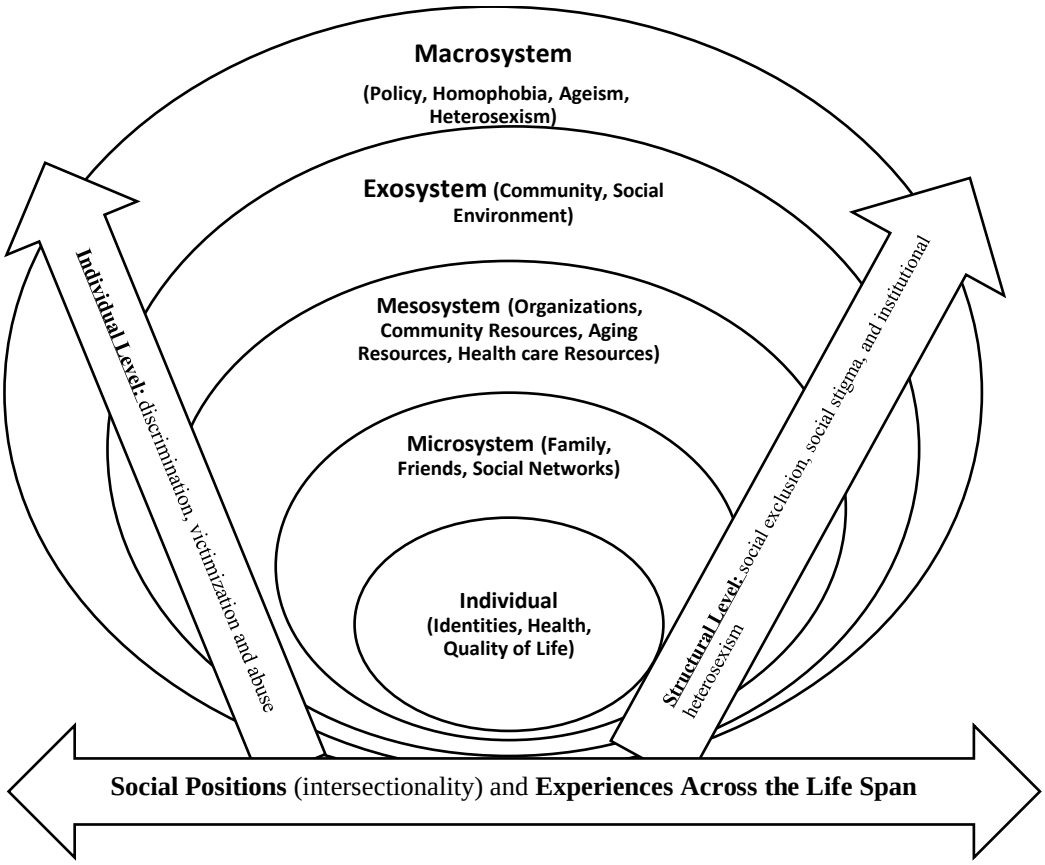
3.3 Study Theoretical Lens

The LGBTQ Health Equity Model and Socio-Ecological Model provide the foundation for looking at the experience of aging lesbians and gay men who live in rural communities regarding their social networks, identity, health, and quality of life (QOL). Although neither of the models explains the structure or existence of social networks, the

socio-ecological model recognizes the multi-level community and group context that can shape the availability and access to networks. The multi-level structural and individual context from the LGBTQ Health Equity Model improves upon the socio-ecological model for the aging lesbian and gay population by recognizing the specific pressures exerting influence on them. Through including the multi-level pressures facing aging lesbian and gay individuals within the ecological system, one can work toward gaining a fuller understanding of how these factors affect the overall quality of life, health, and identity development in older age (Figure 3.3).

The impact of the SEM on the individual can be seen throughout the life span. The effect from the macrosystem to the microsystem shapes the ability of an individual to develop his or her identity and form social ties. Identity and social ties may influence health and QOL for aging lesbians and gay men in rural communities. Stigmatization and cultural homophobia may negatively influence overall health and identity congruence for this population. The socio-ecological model, combined with the LGBTQ Health Equity Model, provides the guiding lens that shaped this dissertation research.

Figure 3.3: Combined Guiding Framework



CHAPTER 4: STUDY DESIGN AND DATA ANALYSIS

In this chapter, I present the methodology of the study. I justify the study process, study sites, and data collection methods. The chapter concludes with a discussion of analysis methods. Findings are discussed in chapter 5.

4.1 Study Design

The purpose of the study was to examine and describe the influence social networks have on rural aging lesbian and gay individuals' identity, health, and quality of life. A multi-method design, one-on-one quantitative social network data on network type, size, and social capital were supplemented by quantitative questionnaires relating to health, quality of life, marginalization, and identity. Additionally, open-ended questions regarding a participant's health, quality of life, and identity were posed, generating qualitative data. This study was approved by the University of Kentucky Institutional Review Board (IRB #45659).

4.2 Study Sites Selection and Background

The study was conducted in rural environments. As mentioned, multiple definitions of rural environments and rurality exist. For this study, I am relying on a geographic definition of rural environments. Rural environments were selected as the location for the research due to the convergence of geographic, social, political, and economic conditions resulting in underserved and unmet needs. Understanding and identifying opportunities to address these needs is a vital component in improving population health. The geographic aspect of rural was chosen, as the study is designed to look at the influence of geographic locations on social network development.

Multiple methods for identifying geographic rural areas exist in the United States (Perry et al., 2018; Zients, 2013). As previously mentioned, a geographic definition was used, which provided a guide for determining eligibility criteria. Rural counties were identified based on those coded as "non-metro" seven, eight, or nine using the 2013 rural-urban-continuum code (RUCC) (Parker, 2017). The RUCC non-metro code seven (*urban population, not adjacent to a metro area*) was included, as most counties within this code are surrounded by rural counties and have served as central residential locations for other counties' out-migrants.

The RUCC method for identifying rural counties in the United States was selected because it combines the standard U.S. Census place definitions with considerations from the Office of Management and Budget economic criteria (Parker, 2017). Additionally, the RUCC methodology is employed by the Health Resource and Services Administration for the development and funding of rural health programs, provides the most updated dataset, and has the level of detail necessary for participant selection. RUCC can be supplemented by other methods as needed for additional information (Parker, 2017; Zients, 2013).

Initially, the research was to be conducted in Kentucky for reasons of convenience. Research sites in Kentucky were identified using a progressive selection process. First, counties were narrowed using the 2013 Rural-Urban Continuum Codes to identify those that are classified as seven, eight, or nine – the most rural codes. Finally, counties within thirty (30 miles) of a major urban area were excluded. A total of twenty-one counties were identified using this method. Participant recruitment reached saturation following five months of data collection. Despite multiple efforts to recruit participants,

as described below, it became clear that recruitment only in Kentucky would not result in enough participants for the study. Rural Appalachian counties from West Virginia and Tennessee were added to the recruitment area.

4.3 Participants

Participants were eligible if they self-identified as gay or lesbian, were age 50 and older, lived in one of the identified counties, and expressed willingness to participate in the study. Exclusion criteria included residents in a nursing home or other skilled medical facility, identification as non-gay or lesbian, or the existence of symptoms or a diagnosis of a neuro-cognitive-degenerative illness (Carp, 1989; Fredriksen-Goldsen & Kim, 2017; Mody et al., 2008).

Non-gay or lesbian individuals were excluded, as they were not the target of the study. In considering other members of the LGBTQ community, bisexual individuals were excluded due to their ability to alter or hide their sexual identity based on need more easily than gay or lesbian individuals. Transgender individuals were excluded as they represent a gender identity, not a sexual identity. As discussed in chapter 2, "gender" refers to an individual's sense of self and the associated ascribed behaviors to that gender. Sexual identity focuses on an individual's romantic and erotic responses. Transgender individuals can be of any gender and may identify as any sexual orientation. Conversely, individuals who identify as gay or lesbian most commonly ascribe to a male or female gender identity and a homosexual sexual identity.

Regarding the age of the participants, age fifty and above was selected, as it allowed for the inclusion of all three older lesbian and gay cohorts: the Silent, the Greatest, and the Rainbow Generations (Fredriksen-Goldsen & Kim, 2017). Data suggest

that the majority of older lesbian and gay individuals alive are between 50-69. The first nationally representative sample of older LGBTQ individuals oversampled those in the 65+ category (Fredriksen-Goldsen & Kim, 2017). Greater health disparities and shorter health spans resulting in early mortality play a role in the lack of accessible aging lesbian and gay individuals over the age of sixty-five (Fredriksen-Goldsen, Kim, Shui, et al., 2017; Ranahan, 2017). The natural mechanisms of time and aging, especially within the Greatest Generation, decreases recruitment potential. Additionally, high birth rates during the Baby Boom birth cohort provide a larger pool of potential participants. In general, much like the census of aging LGBTQ individuals in the United States, there are limited data available regarding the exact count by age group.

Focus on lesbian and gay individuals allows for the examination of social network construction and experiences of the quality of life for two distinct groups. Health outcomes vary significantly between lesbian and gay individuals. Though both face health inequality, health outcomes differ. Gay men have higher overall rates of cancer and social isolation. Lesbians report higher rates of disability, being overweight (BMI is 25.0 to <30), and poor overall health (Fredriksen-Goldsen, Bryan, et al., 2017; Fredriksen-Goldsen, Kim, Bryan, et al., 2017; Fredriksen-Goldsen, Kim, Shui, et al., 2017). While both lesbian and gay individuals report primarily homogenous social networks, the size of the networks of lesbians is far more substantial (Erosheva et al., 2016). Additionally, lesbian networks seem to be more supportive and willing to assist in old age (Kim & Fredriksen-Goldsen, 2016). By contrast, gay men's social networks, especially those within the Baby Boom and Rainbow generations, appear to continue reflecting the impact of HIV/AIDS and the resulting loss of social connections (Erosheva

et al., 2016; Fredriksen-Goldsen, Cook-Daniels, et al., 2014; Fredriksen-Goldsen et al., 2013).

4.4 Study Size

In reviewing similar aging and social network research, the decision was made to seek a sample of 30-40 individuals. This number was selected due to the pilot nature of this work and the difficulties expected in recruiting a hard-to-reach population. This dissertation reports the findings resulting from successful recruitment of 25 individuals.

Every attempt was made to have equal representation between gay and lesbian individuals. It was expected that as women report higher life expectancy than men, a greater number of lesbians would be recruited. Every attempt was made to ensure an appropriate age distribution. I engaged in the process of purposive sampling of participants, recognizing the unique challenges in recruiting rural gay and lesbian individuals over the age of sixty-five, as demonstrated by comparable studies and life expectancies. As such, I expected that the majority of the sample would be between the ages of 50 and 70.

4.5 Recruitment

Recruitment for participants occurred from September 2018 to February 2019. Initial plans called for participants to be recruited using a ground-up community snowball sample approach (Carp, 1989; Israel, Schulz, Parker, & Becker, 1998; Mcmillian & Chavis, 1986). The recruitment strategy initially focused on utilizing existing LGBTQ networks and infrastructure throughout the states to locate participants. Examples of the infrastructure used include the statewide equality federation, PFLAG (Parents, Families, and Friends of Lesbians and Gays), the multiple statewide Pride organizations, and local

community centers. Recruitment was supplemented through the LGBTQ Aging Needs Assessment Participant Registry, a listing of LGBTQ individuals over the age of fifty throughout Kentucky who have expressed interest in participating in research studies. Using snowball sampling, individuals were asked to share research recruitment flyers with those they believe would be interested in participating (Borgatti & Molina, 2005; Chung, Hossain, & Davis, 2005). The UK Center for Clinical and Translational Science assisted in developing a multi-media recruitment strategy. The Transform Health Initiative at the University of Kentucky provided information to eligible patients. The Transform Health Initiative serves as a central medical home for individuals who identify as LGBTQ and utilize Kentucky Healthcare Services.

Although initial plans called for using snowball sampling following a seed-sampling from the existing LGBTQ infrastructure, this method resulted in limited success. Social media advertisements, mainly through Facebook, resulted in the greatest success for participant recruitment. Fifteen of the twenty-five participants (60%) were recruited through social media advertisements on Facebook. Two participants (8%) were recruited second-hand through social media advertisements as they were not on social media, but were told about the study from someone who saw the advertisements on social media. Six participants (23.07%) were recruited through snowball sampling from previous participants. Of the participants, five were married, and the spouse also took part, resulting in 40% of the sample consisting of dyads. Two participants were recruited from the LGBTQ Aging Needs Assessment participant pool out of a possible thirty eligible participants.

One hundred and three individuals expressed interest in participating in the study. The majority of these individuals were excluded due to not living in one of the selected counties. A smaller portion was eligible, but did not respond to follow-up messages to schedule interviews.

4.6 Data Instruments and Measures

Data collection employed a multi-method approach involving a self-reported questionnaire, ego-centric social network development, and an open-ended interview. These approaches were selected to allow for triangulation of the data and a more holistic understanding of the research (Creswell, 2014). Data collection took place in person or over the telephone, based on the needs of the participants. Ten (40%) of the interviews took place in person in the participants county of residence with the remaining (n=15; 60%) occurring by recorded telephone interviews. Participants were made aware of their rights under the Institutional Review Board. The IRB waived the need for signed consents due to the sensitive nature of the participant population and data being collected in this low-risk study. Participants received a copy of the informed consent document. Every attempt was made to ensure participant confidentially and privacy, given the nature of the population and the opportunity for discrimination should their identities be made public. Identifying information and participant IDs were stored in separate password-protected files, as participants reported a history of community violence, every step was taken to avoid participation in the research escalating the threat of violence. Face-to-face interviews only took place in locations identified by the participant; all of the meetings took place in the participant's county of residence. Participants were asked to identify themselves at the start of any call. Any mailed communication sent was in University of

Kentucky-marked envelopes. De-identified quantitative data were stored on an encrypted server housed on the Indiana University-Bloomington campus. All recorded audio information was stored on an encrypted server at the University of Kentucky before transcription, and then destroyed.

Survey instruments were pilot tested with four (n=4) aging (50+) lesbian and gay individuals who lived in urban environments, yet selected non-eligible rural environments. Pilot participants completed all aspects of the interview protocol. Pilot participants received coffee and pastries for their time. Study participants received a $30 incentive for participating. A complete survey is located in the Appendix. The role of each data collection method in addressing the Specific Aims of the study is summarized in Table 4.1.

4.6.1 Self-Reported Questionnaire

Participants completed a self-reported (survey) questionnaire during the interview with the researcher. The self-reported questionnaire was available to participants both via hard copy and electronically. I provided an electronic or hard copy of the self-reported questionnaire to the participants at the start of the interview and walked through the self-reported questionnaire with each participant to ensure understanding of the questions. The self-reported questionnaire gathered data on demographics, health status, rural identity, sexual orientation, identity congruence, and experiences of discrimination/homophobia.

Demographic data collected included age, sex, race/ethnicity, marital status, employment status, education, family size, and living situation. A modified version of the Centers for

Table 4.1: Questionnaires and Interview Questions by Specific Aim

Self-Reported Questionnaire			
Measurement Tool[1]	**# of Items**	**Measures**	**AIM**
CDC BRFSS Demographics	12	Demographic Information	1;3
Single Health Question (WHO)	1	Overall Health	3
CDC Specific Disease Identification Questionnaire	1	Specific Conditions Affecting the Individual; Co-Morbidity	3
Flanagan Quality of Life	15	Quality of Life	3
PROMIS Social Isolation Scale	4	Social Isolation	3
Modified Appalachian Identity Scale	13	Rural Place Attachment and Identity	1;3
Adapted NHAS Survey	8	Sexual Orientation Identity Congruence and Discrimination	1;3
Nebraska Outness Scale	10	Identity Disclosure and Concealment	1;3
Community Cohesion	10	Community Cohesion	1
Open-Ended Questions			
As you think about aging, what strengths and weaknesses exist in your community?			1;2;3
1. How would you say services are in your community? How do you access them? **Probe:** What services? **IF NOT DISCUSSED:** What about health services in your community? How do you access them? **Probe:** What services?			1;2
2. How would you describe the climate of your community around LGBTQ issues? **Follow-Up:** What about an aging/older adult?			1;3
3. How would you describe being (*gay or lesbian*) throughout your life? **Probes:** What about in relationship to economics, social life, health, identity. Is there anything specific to this community?			1;3
[Follow-Up] How do you believe others have treated you based on your identity as (*gay or lesbian*)? **Probe:** Can you provide an example? **Probes:** Do you believe this could have been due to other parts of your identity?			1;2;3
4. Does your identity impact you seeking health services or health care? (*lesbian woman or gay man*)? **Probe:** How so?			2;3
5. Does your identity impact you seeking other community services? (*lesbian woman or gay man*)? **Probe:** How so?			2;3
6. Where do you feel 'safe' in your community? **Probe:** Why there? What about the area?**Probe:** What could be done to improve your feeling of safety in your community?			2;3
7. Is there anything else you would like to add?			1;2;3

[1] See Appendix for a full version of the SELF-REPORTED QUESTIONNAIRE, social network questions, and open-ended interview questions.

Disease Control (CDC) Behavioral Risk Factor Surveillance System Survey (BRFSS) standardized demographic questionnaire, with adapted Sexual Orientation & Gender Identity (SOGI) questions, was used for the demographic data collection (Mulé, McKenzie, & Khan, 2016; Prevention, 2014, 2016). Also used was the World Health Organization single-item, self-reported health question to ascertain health status (Subramanian, Huijts, & Avendano, 2010). The CDC BRFSS 2017 Disease-Specific questionnaire supplemented the WHO single-item, self-reported health question in providing a broader picture of each participant's health (Prevention, 2016). The PROMIS (Patient-Reported Outcomes Measurement Information System) Social Isolation Scale was used to measure social isolation (PROMIS, 2016). The 2002 revised Flanagan Quality of Life Scale (QOLS) was used to examine and determine the quality of life.

The Flanagan scale measures quality of life across five domains: Material and Physical well-being; Relationships with other people, Social, Community, and Civic Activities, Personal Development and Fulfillment; and Recreation (Burckhardt & Anderson, 2003). A modified version of the Appalachian Identity Scale refocused on rural environments was used to determine rural identity and community cohesion (Krok-Schoen, 2015). Sexual orientation identity congruence and experiences of discrimination were collected utilizing the Lesbian, Gay, Bisexual Identity Scale (LGBIS) and the Nebraska Outness Scale (NOS) (Meidlinger & Hope, 2014; Mohr, 2012). The NOS supplements the LGBIS through the inclusion of specific measures of concealment and disclosure, adding a focused external dimension to identity congruence. The measures of identity congruence, analyzed with measures of social cohesion and health, create the overall quality of life measure (Meidlinger & Hope, 2014). All measures were valid and

reliable in their original format. The self-reported questionnaire took approximately 20-25 minutes to complete.

4.6.2. Egocentric Social Network Data Collection

I collected social network data through the ENSO software package. The ENSO program was beta-tested in the field during this study. Revisions to the software to improve respondent burden occurred throughout the data collection process. ENSO is an open-source social network data collection platform that incorporates the principles of plain communication (e.g., plain language, color, drag-and-drop, card sorting) to make the experience accessible for technologically- and literacy-challenged populations. Questions were optimized for touch screens for collection in the field using tablets and allow for data collection without the need for a reliable connection to WIFI. Telephone interviews required the manual entry of the data by the researcher. Within ENSO, questions focused on ego-network data collection. Data were downloadable for analysis.

A series of six name generators, questions that elicit a list of contacts the participant knows, were used to develop the ego-centric social networks. A combination of exchange, contact, and intimacy-based name generator questions were used to create a list of network members (Chung et al., 2005; Crossley et al., 2015). The name generators used in this study focused on eliciting individuals in the participant's network who provide various forms of social support and social capital, and information (Marin & Hampton, 2007). Name generators were developed, utilizing recommendations and structures laid out by Valente (Valente, 2010; Valente, 2012). A time-recall of one year was used to increase a respondent's ability to recall alters (Valente, Dougherty, & Stammer, 2017).

Alter information was gleaned from a series of supplemental measures including demographic similarity, the strength of tie measures, perceptual affinity, and connectedness to determine alter-alter ties (Crossley et al., 2015; Valente, 2010). Alter data were collected to identify similarities and differences in alters and the relationship to the participant. Egocentric social network data collection took 35-45 minutes.

4.6.3 Personal Interviews

Throughout the data collection process, an open-ended personal interview took place and was recorded to garner additional information from the ego-centric social network and self-reported questionnaire data collection tools, in order to focus in on the personal experience of each participant (Crossley, 2010). These open-ended questions were developed with an emphasis on asking participants how their life history was shaped as a gay or lesbian individual and influenced by living in a rural environment. Questions focused on adding additional depth to the quantitative data, particularly around access to community and individual health resources, social supports, community organizations, and perceptions of their community.

4.7 Study Procedure and Respondent Burden

Data collection took approximately 1.5 hours to complete per participant (including questionnaire completion, social network data collection, and final personal interview). I read the survey to participants and provided background and instructions on each question as the participants moved through the survey. This process allowed for a more in-depth discussion regarding topics than could not be captured by quantitative measures alone. One concern in research is the role of respondent burden on participants and the quality of data derived. Social network data collection by design is a time-

consuming process (Crossley et al., 2015). The combination of social network, survey-based, and interview data collection is immensely time-consuming. The time required was dependent on the individual's responses and willingness to share. Data collection time ranged from 45 minutes to 190 minutes. The shortest meeting was conducted with a stroke survivor, while the longest was conducted with the oldest gay man in the study (age = 79).

In engaging in research with older adults, it is vital to recognize physical and mental limitations that may arise due to long periods of data collection. Of particular concern is mental fatigue in which the individual is not able to process and provide appropriate answers to the interview tools (Ahmed et al., 2018; Carp, 1989). Multiple methods were used to address participant burden and reduce survey fatigue. I worked to ensure that each participant had an appropriate amount of break time between sections. Participants were informed that they could take a break at any time during the data collection process. No participant opted for a break. Also, unlike other studies focused on social network data collection, data were collected using an innovative social network data collection tool, ENSO. Typically, in personal network data collection, participants are asked each question by alter. The use of ENSO alleviated some respondent burden associated with social network data collection by providing a quick process for in-person participants to “drag and drop” alters into similar groups along the Likert scales. Thus, participants only had to respond to each alter question once. Participants were allowed to end data collection at any time. No participant opted to do so.

4.8. Theoretical Implications

Survey instruments were selected to provide information relating to individuals' overall health, quality of life, identity congruence, and network use in the context of the adapted SEM. Individual identity congruence, community support, and community identity were measured through the Modified Appalachian Identity Scale, the Adapted NHAS (National Homelessness Advice Survey) Survey Scales, and the Nebraska Outness Scale. The NHAS Survey Scales were initially used to develop the LGBTQ Health Equity Model (Fredriksen-Goldsen, Simoni, et al., 2014). Health access and quality of life were measured through the CDC Measure of Healthcare Access, Flanagan Quality of Life Scale, the Interpersonal Support Evaluation (Short), and the PROMIS Social Isolation Scale. Self-reported health was examined through the Single Health Question and the CDC Specific Disease Identification Questionnaire.

The measurements within the CDC Demographic Questionnaire, Adapted NHAS Survey, Appalachian Identity Scale, and Nebraska Outness scale were meant to assist in identifying an individual's social position (intersectionality). These measurements, along with social network data collection, and open-ended questions sought to connect the broader socio-ecological environment and an individual's health, quality of life, and identity outcomes. All aspects of the blended model were addressed in the final interview questions, as well.

4.9 Data Analysis

Data were analyzed utilizing an integrative multi-methods approach addressing the collected social network, and using quantitative and qualitative data. Following all data analyses, qualitative and quantitative data were compared for coherence and

triangulation of the data against survey measurement outcomes and participants' perceptions.

4.9.1 Self-Reported Questionnaire

Quantitative data were inputted and coded based on the original instrument scoring protocols. Individual scores for each participant were calculated along with overall calculations for the study population. A codebook was retained for replication.

Data from the self-reported questionnaire were first reviewed descriptively. Demographic data were organized by frequency. Instruments were scored according to their scoring rubrics. A two-sample t-test was used to examine similarities and differences between aging gay individuals and aging lesbian individuals across instruments. All instruments and demographic data were calculated for all participants and then for gay and lesbian participants individually. Pearson's correlation was utilized to examine correlations between health status, community cohesion, and the measures of identity congruence.

The analysis was conducted in SPSS 25 for Macintosh. Where applicable, findings were compared to known lesbian and gay outcomes to identify factors that support or refute national trends.

4.9.2 Social Network

Social network data were initially coded in Excel and then imported into the UCINET 6.6 social network analysis software package. A quality data check occurred within the UCINET system to ensure that data were appropriately entered. The frequency of variables were calculated using UCINET and SPSS. Categorical alter attributes (descriptive factors) and homophily were computed. Perceptual affinity measures were

calculated using means for individuals and populations. The social network analysis measures are reported using standard interpretations of the measurements (Perry et al., 2018; Zients, 2013).

4.9.3 In-Depth Personal Interviews

Qualitative data were collected throughout the interview process. A series of open-ended questions assisted in guiding a semi-structured conversation during and after questionnaire and social network data collection. A professional transcriptionist prepared the qualitative data for analysis as each interview was completed. An *a priori* approach based on the major domains of the LGBTQ Health Equity Model (multi-level, health adverse and health-promoting, health, social position, and life span) and sub-structural domains guided interview question development and was used as the lens to code the transcribed interviews in NVivo 12 for Macintosh (Fredriksen-Goldsen, Kim, Bryan, et al., 2017).

The use of *a priori* coding, based on the LGBTQ Health Equity Model, assisted in providing structure to the data analysis process (Miles, Huberman, & Saldana, 2014). Using this coding method aided in the development of clear patterns, and a concise method of organizing the data that assisted in the movement of individual codes to broader thematic patterns. The use of *a priori* coding does introduce limitations to the qualitative data analysis process. As with any analysis using pre-determined codes, certain themes present in the data may have been overlooked. Coding and analyses are limited to pre-identified categories that may not fully represent a participant's experiences. Furthermore, not all experiences or themes present within the data may be

represented in the code structure, or data may be forced to fit into specific codes (Creswell, 2014; Miles, Huberman, & Saldana, 2014).

Given the focus of the research on networks, identity, health, and quality of life, the use of *a priori* coding based on the LGBTQ Health Equity Model allowed for establishing a common framework for analysis (Miles, Huberman, & Saldana, 2014). The data analysis process followed the same theoretical model as the guiding framework for question development. The use of an *a priori* coding structure, based on the LGBTQ Health Equity Model, also expedited the coding process, recognizing that the qualitative data are part of a more extensive collection of data meant to inform the findings.

I coded interview data based on the sub-structural domains of the LGBTQ Health Equity Model. Coding was completed using each participant's words. Concurrent coding occurred to break down the broad code categories into more specific codes, based on the sub-domain of the LGBTQ Health Equity Model. Code categories were reconnected into synthesized themes. At each stage of the process, I reviewed coded items to ensure they fit into the defined domain. If not, I moved the code to a new domain, or the domain was reviewed, and description was altered.

Ensuring the trustworthiness/rigor of the data and data analysis is critical to qualitative data. Following Padgett's (1998) recommendations for ensuring rigor, interviews began with rapport building before moving into the formal interview. Member checks occurred throughout the interviews to ensure I understood what they were saying. When needed, I followed up with a telephone call after the interview to ensure an accurate understanding of the interview. I participated in peer debriefing with committee members to reduce bias in coding. I sought advice and requested feedback regarding my

coding process. One member provided feedback on five interviews regarding the major perceived themes. Interviews were coded separately and then compared for differences in the coding structure. The identification of negative cases within the coded sub-themes was specifically sought in order to ensure codes remained stable in meaning. One interview, in particular, contained multiple examples of negative cases of themes. In reviewing this participant, the experiences seemed to differ from the vast majority of participants due to higher social-economic status. NVivo 12 allowed for a clear log of the coding process, including changes to codes and documentation related to coding decisions.

4.10 Conclusions

The use of multiple methods within the study helps to ensure findings are as reliable and valid as possible and to increase the depth of understanding of the topic. The multiple-method approach is necessary, given the specific aims of the study.

CHAPTER 5: FINDINGS

Findings are presented in this chapter. Insights presented include demographic characteristics, community connectedness, health status and quality of life, identity congruence, ego-centric social networks, and personal interview findings. As discussed in chapter 4, the dissertation study was a multi-method design. Data collected included quantitative survey information and ego-centric social network data, along with qualitative personal interviews. I made every attempt to ensure that the findings represent the multiple data types and sources available. Where applicable, statistical significance was set at $p \leq .05$ All names are pseudonyms.

5.1 Demographic Characteristics

Twenty-five (N=25) individuals participated in the research. Demographic data were collected using a modified CDC BRFSS Demographics questionnaire (Prevention, 2016). Sexual and gender identity (SOGI) questions were included to capture sexual orientation (Fredriksen-Goldsen & Kim, 2015).

Participants were almost equally distributed between gay men (n=13; 52%) and lesbians (n=12; 48%). All but one participant identified as non-Hispanic white. The mean age of all participants was 60.32 years (range: 50-79). The average age of gay men (61.38 years; range = 52-79) was slightly higher than the average age of lesbians (59.16 years; range = 51-72).

The majority of participants (80%) received at least a post-secondary education. Overall, gay men reported higher education and income. Fifty-two percent (52%) of participants were employed. Twenty-four percent (24%) reported they were retired. The majority of participants (72%) did not live alone. Those who lived with others lived with

romantic partners or family members. Fifty-six percent (56%) reported having children. Sixty percent (60%) reported a religious affiliation.

Participants represented three states: Kentucky (n=20), Tennessee (n=2), and West Virginia (n=3). The majority (n=17) of participants lived in RUCC 7 counties followed by RUCC 9 (n=6) and RUCC 8 (n =2) counties.

Five married couples participated in the study: two married gay couples and three married lesbian couples. Married couples represent 40% of the survey participants. A full description of participant characteristics is found in Table 5.1.

5.2 Community Cohesion

LGBTQ community cohesion measured across three domains: closeness to community, positive relationships in the community, and rewarding relationships in the community. Individual measures for community-dwelling individuals were used to determine levels of community-embeddedness. Data collected focused on community cohesion, community support, and community access.

Gay men scored higher than lesbian participants on these measures (Table 5.2). In comparison to aging lesbian participants, aging gay men reported greater community closeness and more positive relationships with the community, and viewed the community as being supportive. Differences in gay and lesbian participants' community experiences were not statistically significant.

The rural community cohesion scale measured participants' perception of their rural identity and the acceptance of the community where they live. Gay men scored higher than lesbian participants on both measures, demonstrating greater rural identity and a more positive relationship with their community, though differences in the score

Table 5.1: Participant Demographic Characteristic.

Characteristic	Percentage (#)	Characteristic	Percentage (#)
Sex		**Sexual Orientation**	
Male	52% (13)	Gay	52% (13)
Female	48% (12)	Lesbian	48% (12)
Race/Ethnicity		**Religious Affiliation**	
White	96% (24)	Yes	60% (15)
Asian	4% (1)	No	40% (10)
Relationship Status		**Education**	
Married	48% (12)	Grades 9-12	4% (1)
Divorced	12% (3)	High School Graduate	16% (4)
Widowed	4% (1)	College 1 year to 3 years	32% (8)
Separated	0% (0)	College Graduate	20% (5)
Never Married	16% (4)	Graduate School	28% (7)
Member of Unmarried Couple	20% (5)		
Income		**Employment**	
Less than $10,000	4% (1)	Employed	52% (13)
$10,000 to less than $15,000	8% (2)	Unable to Work	16% (4)
$15,000 to less than $25,000	12% (3)	Unemployed	8% (2)
$25,000 to less than $35,000	16% (4)	Retired	24% (6)
$35,000 to less than $50,000	8% (2)		
$50,000 to less than $75,000	36% (9)	**Children**	
$75,000 to less than $100,000	0% (0)	Yes	56%
$100,000 or more	12% (3)	No	44%
County of Birth		**Live Alone**	
A non-rural [KY,WV, TN] county	12% (3)	Yes	28% (7)
The rural county of residence in [KY,WV, TN]	40 (10)	No	72% (18)
Another rural [KY,WV, TN] county	8% (2)		
Non-Rural County outside of [KY,WV, TN]	16% (4)	**Age**	
Rural county outside of [KY,WV, TN]	20% (5)	Gay	61.38 (range 52-79)
Another country	1 (4%)	Lesbian	59.16 (range 51-72

Table 5.2: Community Cohesion Scores

Measure	Entire Sample	Lesbian	Gay	Sig (2-tailed)
	Score (SD=#)			
LGBTQ Community Cohesion				
Closeness to Community[1]	4.92 (1.89)	4.42 (2.1)	5.38 (1.6)	.208
Positive Relationships in Community[2]	4.28 (1.93)	4 (1.98)	4.54 (1.95)	.497
Rewarding Relationships in Community[3]	5.44 (1.69)	5 (1.48)	5.85 (1.81)	.217

1 Scale of 2 to 8 with higher score indicating greater closeness to the LGBTQ community.

2 Scale of 2 to 8 with higher score indicating more positive relationships in the LGBTQ community

3Scale of 2 to 8 with higher score indicating more rewarding relationships in the LGBTQ community.

were minimal. The differences in rural identity between lesbian and gay participants were not statistically significant.

5.3 Health & Quality of Life

Several measures were used to capture health status and outcomes. The World Health Organization single-item, self-reported health question supplemented by the CDC BRFSS 2017 Disease-Specific questionnaire were used to ascertain health status (Prevention, 2016; Subramanian et al., 2010). The PROMIS Social Isolation Scale was used to measure social isolation (PROMIS, 2016) and the 2002 revised Flanagan Quality of Life Measure was used to examine the quality of life (Burckhardt & Anderson, 2003). Subsections of the NHAS were used to collect data on health access and availability of providers (Fredriksen-Goldsen et al., 2015).

The majority of participants reported being in good (52%) or very good (12%) health. Lesbians reported higher rates of good/very good health (75%) compared to gay men (53.9%). Participants reported on average 3.64 (*SD* = 2.29) co-morbid conditions. Gay men reported a slightly higher average of co-morbid conditions (4.23 [*SD*=2.24]) than lesbians (3 [*SD*=2.26]). Participants reported low levels of disability with lesbians more frequently reporting higher levels of disability than gay men. While gay men reported more co-morbid conditions and lower self-ascribed health, differences in health, co-morbid conditions, and disability between gay and lesbian individuals are not statistically significant.

Over half (n=13) of participants reported being unable to access a needed health service. The majority (64%) of participants reported that needed services were not

available in their community. The remaining (36%) reported they could not afford to access the service.

Both gay and lesbian individuals report social isolation in the upper half of the PROMIS Social Isolation Scale (score= 48.17). Lesbians report greater social isolation (score= 50.76) than gay men (Score= 45.76). There was no statistically significant difference in social isolation among gay and lesbian individuals. However, both levels of social isolation are greater than the mean score of the general population of the United States, as reported by the PROMIS instrument.

Finally, based on the Flanagan Quality of Life Scale, gay men report a higher quality of life (score=71.92) than lesbians (score=69.92). Participant scores fall slightly above the mean score of 69. A score of 90 is considered to be the average for a population, labeled as a 'healthy population' (Burckhardt & Anderson, 2003). Aging rural gay and lesbian individuals report a lower quality of life than the average healthy United States population. Findings are summarized in Tables 5.3 and 5.4.

5.4 Identity

Identity congruence measures focused on an individual's lesbian/gay outness and rural identity. Measures included subsections of the NHAS and a modified Appalachian Identity Scale (Krok-Schoen, 2015; Meidlinger & Hope, 2014; Mohr, 2012). The findings are summarized in Table 5.5.

Gay men reported higher levels of outness (score = 80; lesbian = 67.17) and identity disclosure (score = 39.62; lesbian = 33.08) and lower levels of identity concealment (score = 10.46; lesbian = 16.08) than lesbian individuals, as scored on the

Table 5.3: Single-Item Health Question Findings

Measure	**Percentage (#)**			**Sig (2-Tailed)**
Health	**Entire Sample**	**Lesbian**	**Gay**	
Very Bad	0% (0)	0% (0)	0% (0)	.6061
Bad	12% (3)	0% (0)	23.1% (3)	
Moderate	24% (6)	25% (3)	23.1% (3)	
Good	52% (13)	75% (9)	30.7% (4)	
Very Good	12% (3)	0% (0)	23.1% (3)	

Table 5.4: Health Outcomes and Quality of Life Measurement Findings

Measure	Entire Sample	Lesbian	Gay	Sig (2-tailed)
	Score (SD=#)			
Disability[1]	4.24 (5.85)	4.83 (6.26)	3.69 (5.63)	.787
Co-Morbid Conditions[2]	3.64 (2.29)	3 (2.26)	4.23 (2.24)	
Social Isolation[3]	48.17 (13.27)	50.76 (11.11)	45.76 (15.03)	.358
Flannagan Quality of Life Scale[4]	70.88 (17.22)	69.92 (21.84)	71.92 (11.16)	.779

1 Average of self-reported disability.

2 Average of self-reported co-morbid conditions. The greater the number the more co-morbid conditions reported.

3 Scale of 34.8 to 74.2 with a median of 50. The higher the score the more self-reported social isolation.

4 Median of 69 and a healthy average of 90 in the general U.. population. The greater the score the higher the quality of life.

Table 5.5: Identity and Identity Congruence Scores

Measure	Entire Sample	Lesbian	Gay	Sig (2-tailed)
	Score (SD=#)			
LGBTQ Identity				
Nebraska Outness Scale[1⊥]	73.84 (26.80)	67.17 (27.26)	80 (25.87)	
Nebraska Identity Scale Disclosure[2]	36.48 (14.38)	33.08 (15.15)	39.62 (13.46)	.265
Nebraska Identity Scale Concealment[3]	13.16 (13.91)	16.08 (13.9)	10.46 (13.9)	.323
Identity Stigma[4]	5.68 (2.27)	5.67 (1.83)	5.69 (2.69)	.978
Identity Appraisal[5]	21.20 (3.84)	20.92 (2.81)	21.46 (4.7)	.731
Community Identity				
Rural Identity[6]	18.80 (6.10)	18.50 (6)	19.08 (6.41)	.819
Community Acceptance & Identity[7]	21.60 (9.36)	21 (7.95)	22.15 (10.79)	.765

1 Scale of 0 to 100 with higher score indicating greater outness.

2 Scale of 0 to 50 with higher score indicating greater identity disclosure.

3 Scale of 0 to 50 with higher score indicating greater identity concealment.

4 Scale of 6 to 24 with the higher score indicating greater identity stigma.

5 Scale of 6 to 24 with the higher score indicating greater identity appraisal.

6 Scale of 0 to 30 with higher score indicating greater rural identity.

7 Scale of 0 to 36 with greater score indicating greater community identity.

⊥ Composite score of disclosure and concealment scales.

Nebraska Outness Scale. Lesbian participants reported lower levels of outness and greater identity concealment. The second measure of LGBTQ identity, which focused on identity stigma and identity appraisal, did not show the same disparity between gay and lesbian participants. Aging gay men were more likely to disclose their sexual identity than were aging lesbians. The difference in identity concealment and outness between gay and lesbian participants were not statistically significant.

5.5 Ego-centric social networks.

Ego-centric social network data were collected through a multi-step process focused first on the development of social networks through name generators, followed by measures of demographic similarity, perceptual affinity, and tie strength (Brashears & Quintane, 2018; Bruyn & Lilien, 2008). A full description of the network characteristics of participants is presented in Table 5.6.

Participants reported an average network size of 9.32 (*SD* = 4.33) individuals. Aging lesbian participants had a slightly more extensive network than aging gay men. The difference in network sizes between gay and lesbian participants was not statistically significant.

Aging lesbian participants reported more geographically distant networks (50% of alters in same county, 37.3% alters in non-adjoining county or outside of state) than gay men, who reported their networks to be primarily located in the same county (61.7%) or an adjacent county (8.79%) than in non-adjoining counties (29.4%). Both groups reported networks primarily consisting of heterosexual/straight individuals. Gay men reported more lesbian individuals in their networks (17.8%) than lesbian individuals did gay men (3.4%). Both groups reported networks primarily consisting of family and friends.

Table 5.6: Network Characteristic and Measures

Measure	Entire Sample	Lesbian	Gay	Sig (2-tailed)
Network Characteristic				
Number of Ties	9.32 (SD=4.33)	9.83 (SD=3.97)	8.84 (SD=3.49)	.59
Perceptual Affinity[1]	.68 (SD=.07)	.62 (SD=3.06)	.69 (SD=3.08)	.0078*
Tie Strength[1]	.83 (SD=.06)	.78 (SD=3.06)	.89 (SD=3.05)	.0001⊥
Demographic Similarity[1]	.56 (SD=.03)	.58 (SD=3.03)	.55 (SD=3.03)	.0262*
	County (%)			
Residence+				
Same County	130 (54.9%)	59 (50%)	71 (61.7%)	
Adjoining County	25 (10.5%)	15 (12.79%)	10 (8.79%)	
Non-Adjoining County in the Same State	27 (11.6%)	13 (11%)	14 (12%)	
Other	51 (21.9%)	32 (26.3%)	19 (17.4%)	
Sexual Identity+				
Gay	27 (11.6%)	4 (3.4%)	23 (20 %)	
Lesbian	22 (9.4%)	21 (17.8%)	1 (0.9%)	
Straight	159 (68.2%)	77 (65.3%)	82 (71.3%)	
Bisexual	3 (1.3%)	2 (1.7%)	1 (0.9%)	
Unsure	8 (6.2%)	0 (0%)	8 (7%)	
Relationship+				
Family	103 (44.2%)	63 (53.4%)	40 (34.8%)	
Friend	65 (28.8%)	29 (24.6%)	36 (31.3%)	
Neighbor	22 (9.7%)	10 8.5%	12 (11.1%)	
Coworker	10 (4.4%)	4 (3.4%)	6 (5.6%)	
Acquaintance	7 (3%)	5 (4.2%)	2 (1.9%)	
Romantic Partner	16 (6.9%)	7 (5.9%)	9 (8.3%)	
Other	4 (1.8%)	0 (0%)	3 (2.8%)	

+Percent may not add to 100% due to participants opting out of responding. Proportions reported in the rows are the proportion of the ego's networks made up of these characteristics

1 Scored .00 (least similar) to 1 (most similar)

* $p \leq .05$

⊥$p \leq .0001$

Lesbian participants reported more family members in their networks than gay participants.

Perceptual affinity, the similarity of interests among ego and alters and how much they have in common, was calculated using four measures. The measures were then summed, averaged, and compared. Aging gay men (.69) reported higher perceptual affinity within their networks than aging lesbian participants (.62). The higher level of perceptual affinity among aging gay men's networks compared to aging lesbian networks was statistically significant at p= .0078.

Demographic similarity and the extent individuals view themselves as sharing demographic characteristics, was calculated using age, occupation, gender, and sexual orientation. The measures were summed, averaged, and compared. Aging lesbian networks showed greater similarity (.58) than aging gay men's networks (.55). The greater homogeneity in aging lesbian networks compared to aging gay men's networks was statistically significant at p=.0262. The final measure calculated was tie strength. Granovetter (1973) defines tie strength as the following: "The strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie." Tie strength was calculated using a four-scale measure focused on tie utilization. The measures were then summed, averaged, and compared. Aging gay men reported stronger network ties on a scale of 0 to 1 with 1 being the strongest (.89) than aging lesbian females (.78). The stronger network ties reported by aging gay men compared to aging lesbian participants were statistically significant at p=.0078.

5.5.1 Social Network Development and Rural Residency

One of the first measures used to review social networks was the homogeneity of the networks. The demographic similarity scores served as the measure for homogeneity. The demographic similarity score takes into consideration the ego and alters genders, sexual orientations, occupations, and geographic locations in calculating a final score on a scale of 0 (not at all similar) to 1 (very similar). Lesbian individuals reported a slightly higher homogeneity score of .58 (*SD*=.031) than gay individuals at .55 (*SD*=.032). The difference in homogeneity of networks between gay and lesbian participants was statistically significant at p = .0262.

Based on participants' comments about network engagement, social network structures and make-up were reviewed. To calculate groupings of ties, the effective size of the networks was calculated using UCINET 6.6 for Windows. Effective size provides a measure of the number of alters an ego has, minus the average number of ties each alters has to other alters. Effective size provides a measure of redundancy in an ego-centric social network, or what "pots of information" an ego can access (Perry, Pescosolido, Borgatti, 2018, p. 181).

As participants' networks were shown to be non-homogenous, a smaller effective size would indicate that participant's alters, particularly those who identify as heterosexual and LGBTQ, would be connected. Participants had an average network effective size of 7.12 (*SD*= 4.27) with an average network size of 9.32 (*SD*=4.33). Participants' alters do not appear to be highly connected. Gay individuals reported a smaller effective size at 6.97 (*SD*=4.97, average network size of 8.84)than lesbians at 7.48 (*SD*=3.55, average network size 9.8), meaning their networks were more

constrained. The difference in effective size of networks between gay and lesbian participants was not statistically significant. A summary of findings can be found in Table 5.7.

When considering the average size of the networks at 9.32, the networks do not appear to be constrained or result limit resource access. Most participants have access to multiple knowledge and support resources among their networks. Participants' networks do not appear to consist of overlapping network members.

Participants' networks remained complex, given that they were not homogenous and did not have much overlap among members. As participants reported, they often kept separate networks. A Pearson's Correlation was used to see if individuals' perceived identity congruence regarding rural identity and homosexual identity influenced the composition of the networks.

A Pearson Correlation based on the measure of effective size, the Nebraska Outness Scale score, and the rural identity scale score was calculated. A summary of the findings can be found in Table 5.8. Neither measure was a significant predictor of the composition of the networks. Although not quantitatively significant, in the data collected using the scales, in the personal interviews participants felt that their rural identity or homosexual identity did impact their network composition. Finally, lesbian networks were analyzed because of the larger nature of lesbian networks, and the fact they reported less social isolation than gay men in their interviews, yet reported greater rates in the survey. Specifically, given the aforementioned data, it was expected lesbians would report larger, denser, and stronger social networks than gay men.

Table 5.7: Network Effective Size

Measure	Entire Sample	Lesbian	Gay	Sig (2-tailed)
Effective Size				
Effective Size Score (Standard Deviation)	7.21 (*SD*= 4.27)	7.48 (*SD*=3.97)	6.97 (*SD*=4.97)	.77

Table 5.8: Effective Size, Rural Identity, and Outness Score Correlations

Correlations				
		EffSize	Rural Identity	Outness Final
EffSize	Pearson Correlation	1	.228	.057
	Sig. (2-tailed)		.273	.787
	N	25	25	25
Rural Identity	Pearson Correlation	.228	1	.184
	Sig. (2-tailed)	.273		.379
	N	25	25	25
Outness Final	Pearson Correlation	.057	.184	1
	Sig. (2-tailed)	.787	.379	
	N	25	25	25

While lesbian networks are more extensive than gay networks (9.83 alters versus 8.84), gay men report greater tie strength (.89) compared to lesbians (.78). The difference in tie strength between gay and lesbian participants is statistically significant at p= .0001.

5.5.2 Social Networks, Quality of Life, Health and Identity

A major goal of this study was discovering the influence of social networks on health, identity, and quality of life. From a socio-ecological perspective, individuals with denser social networks will report higher rates of quality of life (Kim, Fredriksen-Goldsen, Bryan, & Muraco, 2016). They would have more contacts at the variety of levels from a socio-ecological perspective. A Pearson Correlation was used to test this notion and to reveal any relationship. Findings are shown in Table 5.9.

A Pearson Correlation revealed no statistically significant association between network size and quality of life, as measured using the Flannagan Quality of Life instrument. Finally, given the importance placed by all on self-identification and the impact of self-identification as a gay or lesbian individual on their livelihoods, health, and network development, a Pearson's Correlation relationship between identity congruence and quality of life was conducted. It is thought that individuals with a greater agreement between internal feelings and external behaviors (identity congruence) would report higher rates of quality of life and health. A Pearson Correlation showed a statistically significant (p=.014) relationship between identity congruence and quality of life. Table 5.10 provides a summary of the findings.

5.6 Personal Interview Data

Participant interviews added to the quantitative data collection process by providing an in-depth discussion on participant answers and deeper context to the data.

Table 5.9: Network Size and Quality of Life Correlation

Correlations			
		Network Size	Quality of Life
Network Size	Pearson Correlation	1	.372
	Sig. (2-tailed)		.067
	N	25	25
Quality of Life	Pearson Correlation	.372	1
	Sig. (2-tailed)	.067	
	N	25	25

Table 5.10: Quality of Life and Identity Congruence Correlation

Correlations			
		Quality of Life	Identity Congruence
Quality of Life	Pearson Correlation	1	.487*
	Sig. (2-tailed)		.014
	N	25	25
Identity Congruence	Pearson Correlation	.487*	1
	Sig. (2-tailed)	.014	
	N	25	25
*. Correlation is significant at the 0.05 level (2-tailed).			

During the data collection session, participants took part in qualitative interviews that focused on community resources, health access, social supports, community organizations, and perceptions of their community. Participant interviews lasted an average 72 minutes (range=119 minutes).

I conducted interviews both in-person and over the phone, based on the request of the participant. In-person interviews lasted longer, on average 93 minutes (range = 114 minutes) than interviews conducted over the phone, at 62 minutes (range = 49 minutes). Participants are listed in Table 5.11. The findings are presented below. Quotes are without vocalized pauses, presented through the actual words spoken by the participants without any grammatical editing.

5.6.1 Isolation

Isolation and social exclusion were important themes that emerged in interviews. Frank (gay, age 57) felt that social exclusion was a negative part of gay identity and could negatively influence the process of personal identity acceptance. He shared that:

> They really do need something in places like this, so the younger kids that's gay would have somewhere that they could see that they wasn't in a boat by themselves. Because you feel so by yourself when you come out, you know? You think you're the only one. And then they could see that they ... make them feel better about their self, that they're not in a boat alone.

Table 5.11: Participant Demographic Characteristic.

Pseudonym	Age	Gender	Sexual Identity	County RUCC	Interview Type
Beverly	68	Female	Lesbian	9	In-person
Dianna[1]	56	Female	Lesbian	7	In-person
Marlene[1]	55	Female	Lesbian	7	In-person
Loraine[2]	72	Female	Lesbian	9	In-person
Pat[2]	68	Female	Lesbian	9	In-person
Donna[3]	54	Female	Lesbian	9	In-person
Vicky[3]	55	Female	Lesbian	9	In-person
Angela	54	Female	Lesbian	7	Telephone
Shelia	51	Female	Lesbian	7	Telephone
Deborah	52	Female	Lesbian	8	Telephone
Babs	55	Female	Lesbian	8	Telephone
Margaret	70	Female	Lesbian	9	Telephone
Eddie[4]	79	Male	Gay	7	In-person
Glenn[4]	57	Male	Gay	7	In-person
Tim	62	Male	Gay	7	In-person
Dean	52	Male	Gay	7	Telephone
Carl	53	Male	Gay	7	Telephone
Arthur	52	Male	Gay	7	Telephone
Randall	62	Male	Gay	7	Telephone
Paul	65	Male	Gay	7	Telephone
Jeff	56	Male	Gay	7	Telephone
Wilson[5]	73	Male	Gay	7	Telephone
Frank	57	Male	Gay	7	Telephone
Peter[5]	63	Male	Gay	7	Telephone
Henry	67	Male	Gay	7	Telephone
[1,2,3,4,5] indicate spousal relationship/marriage					

Deborah (lesbian, age 57), a married mother of one who was previously married to a man, was quick to stress the negative social and emotional effects social exclusion had inflicted upon her family:

> I think that people don't understand and I think if they see my wife and I together out with our ... I think it's really bad when we're out with our son. If they see us together as a couple with our son, in this small town and in any small town, they just get this disdain on their face and they'll turn away. We've had grocery lines close down before.

Participants shared their experiences of exclusion and aloneness. While lesbians scored higher on social isolation measures, they did not discuss feeling isolated. Rather, gay men primarily discussed being alone. Frank stated he did not have anyone, other than his sister, to rely on: "I don't really have any close friends – or anyone for that matter. It is really just me and my sister." Others, such as Randall (gay, age 62), felt that the history of marginalization experienced by aging lesbian and gay individuals played a role in their networks and relationships, stating, "There are a lot of gay people our age who don't trust straight people." In not trusting heterosexual individuals, participants would find themselves isolated from the community around them. As gay men in the study lived alone more frequently than lesbians, they may be at higher risk of isolation and loneliness.

Romantic relationships were viewed as a key factor affecting individuals' engagement with the broader LGBTQ community and developing social connections. As one gay man highlighted, at times one's only connection to the LGBTQ community may be a partner: "Sometimes your partner is the only support you have and as you age and when you lose that partner, then you really are alone and isolated." In other instances, individuals report isolation due to the death of network members and a fear of coming out

to new individuals: “I really don’t have any friends. It is really just me.” Participants such as Frank and Dean echoed this sentiment, feeling that while they were personally proud of their identities, identifying as gay had limited their ability to build friendships. Others, such as Eddie and Glenn, had previously been forced to hide their relationship and identity when living abroad and working for a company that could have fired them for being gay. Now, they felt that being a gay couple in rural Kentucky made them somewhat of an oddity.

Gay men were more likely to report dissatisfaction with their experiences aging in a rural environment, despite scoring higher on the rural identity and community scales, than lesbians. Eddie and his husband Glen purposefully avoided interactions with individuals in the community, stating “I think we exclude ourselves automatically from a lot of things. We anticipate we wouldn’t be overly welcome.” Other participants, such as Paul, missed the opportunities for socialization he felt urban-centers had, but rural environments lacked:

> I do wish there were more gay venues like we had in Florida that were convenient. I wish there were something at Richmond. I know there's stuff in Lexington and Louisville. You go out in the evening and you end up having a few drinks and you've got to drive home an hour and that's not good.

Lesbian participants felt excluded, as well. Angela, age 54, particularly felt stymied by the lack of LGBTQ opportunities but also felt that there was little she could do about it. While she would have liked greater opportunity to engage with the LGBTQ community, she had little time to contribute to these efforts, stating:

> The challenge was of course we cancelled Pride this year. I really hope it comes back. I think it is important. But who is going to do it? Like I said, I don’t really have the time. I am on the road. I mean I can work it to get back at a specific time but I really can’t just be there then all the time.

5.6.2 Health and Health Care

Assumptions regarding heterosexuality that resulted in exclusion extended into the health care arena. Participants shared multiple experiences they had trying to navigate the health care system while faced with others' assumptions of heterosexism, which led to social exclusion and stigma.

Peter (age 63) and Wilson (age 73), who are married and have been together for over thirty-years, illustrated the changes across time older gay men have had to face. In the past, before legalized marriage, they felt the need to hide their relationship during a medical emergency in order to be together.

> No. Let's see it's been about 18, 19 years ago when I had the heart attack and was served at [hospital]. There was no provision that said Peter could, that he was my spouse and could be in the room and all that sort of stuff, but he was. It was at that point we didn't say spouse, 'this is my friend and he's going to be here.' People may or may not have figured out why but yeah.

Although this happened in the past, the experience itself can negatively influence their current view of the healthcare system. In this instance, Wilson and Peter felt they had a better chance of Peter being able to remain in the room, without provocation, if he was identified as a "friend" rather than a romantic partner. This type of navigation within the health care system was not uncommon. Participants reported not identifying their significant other or spouse out of fear of reprisal or mistreatment from health care professionals.

Many participants had direct experiences with complex medical care. In addition to managing sexual identity in a heterosexist society, the participants were faced with problems most rural community members face: access to appropriate care. Eddie, (age 79, gay, white), experienced a medical emergency which no doctor in the area could treat.

He and his husband Glenn (age 57, gay, Asian) eventually found a doctor who could treat him, but they were an hour away, and Eddie always felt the doctor was uncomfortable being around him, especially when Glenn came to appointments with him, "…I really kind of think he handed me off… though he would never admit this, but I think that he socially, religiously had this reservation about us."

Dean (age 52, gay, white) was slowly recovering from a small stroke that was exacerbated by his inability to access care quickly. Similarly, Dean's friend Tim (age 62, gay, white) had recently decided to stop seeking care in his hometown. It was particularly hard for Tim to come to this conclusion, but several physician errors resulting in surgery led him to believe care in an urban environment would be more safe.

Sexual identity played a role in health care interactions. Although understanding a patient's sexual identity should be considered part of the normal course of treatment, from participant experiences it is clear that it is far from the norm. Henry (age 67, gay) felt that sexual identity should be part of the conversation with health care professionals, but that it was often overlooked:

> I don't know if it's because of the HIPAA laws or, I'm really not sure. Sometimes I think they kind of skirt around it and don't directly approach it, but they kind of skirt around it and ask questions that, you know what they're trying to get at, but they just don't come right out and ask.

Henry's comments highlight an uneasy tension. Many gay and lesbian participants felt that sexual identity should be addressed as part of routine care. However, at the same time, participants were willing to identify barriers for providers; in this case, falsely attributing HIPAA to the lack of inquiry.

Some, such as Vicki (lesbian, age 55), a married mother of five, felt it was important to discuss her sexual identity, but was not necessarily the most important aspect of the visit. She stated, "Right yeah… it's like are you afraid to disclose your orientation? I'm not really afraid, but it's just …it's none of their business. You know what I mean?" In this instance, Vicki recognizes the importance of sexual orientation and states that she would not be afraid to disclose this, but she also noted that she would not go out of her way to inform. Vicki worked at a health care clinic, the only major one in the area. Her thoughts have been shaped by her work with what she considered to be a more vulnerable population. In her mind, there are other aspects of her that are more important than sexual identity in delivering healthcare. Both Vicki and Henry illustrate how their personal experiences and exposure to the complexity of the health care system has led them to view sexual identity as less important than delivering care, both out of fear of disclosure and the realization that other drivers of health disparities exist.

Health and health pathways were discussed in the context of behavioral, psychological, biological, physical, and mental manifestations and how the conditions had affected them. It was common for participants to share concern about lack of accessible health services and the various requirements needed to access them. In one case, after an accident, Randall (age 62, gay) was fearful of the effect it would have, knowing there was a lack of medical professionals around him. He stated, "There was a period of time when it first started really going downhill that I thought I was going to be using a walker and that kind of thing, but now I do pretty well day to day." Frank (57) faced challenges in locating doctors. He stated, "Well, where I'm on disability, they got

the few ones that'll take the medical card. And that kind of shuts you down. And we ain't got that much here. We ain't got much of nothing, you know?" Others, such as Tim (age 62, gay), were blunter, stating, "Well…services yes there's like…nothing…"

A subset of gay male participants (n =3) who were diagnosed with HIV/AIDS discussed the challenges of accessing appropriate care for their diagnosis in rural areas. Paul (age 65, gay) was particularly alarmed at the lack of care available to him, stating, "I don't know what I'm going to do because my prescriptions are going to start running out and I guess I got to go because he's going to want to test me before, blood, before he gives me more for that medication." In all three cases, participants went to an urban center to receive care. Identifying these urban centers and accessing them had their own set of challenges. Jeff (age 56, gay) shared that upon moving to Kentucky, he faced similar challenges to accessing care as he did when he was first diagnosed. Discussing his first time reaching out to an HIV/AIDS care provider in urban Kentucky, Jeff shared an interaction he felt was all too common:

> I asked them, I was like, "Do you have a pharmacy," and they're like, "We're working on getting one." I said, "I ..." "We do not currently, but we are in the process of getting one." "Cool, I'm moving to the area, and I'm in need. Also, I know of a place that would maybe offer advice, if you so desired." "Thank you," that's all they said. "Thank you."

Jeff shared that he was not only taken aback by how they brushed his offer for assistance off, but also how they had not provided him with any alternatives. Jeff felt that he was more willing to advocate for his health than others might. In part, he was driven by a feeling of needing to support other rural lesbian and gay individuals, believing that every opportunity was a chance for advocacy. He stated:

> I'm the kind of person, my personality is I'm going to push back on this. You have people out in the rural areas who, as their provider told them, 'Find

> another provider.' They're already slapped in the face, and then they get responses like this.

Urban environments were also the location that individuals felt the safest in accessing HIV tests and services, as Carl recounted when he was first diagnosed.

> I'm still kind of surprised about it. Cause, I mean I had been to the health service for [urban] county health services years back. I thought, well you know, I'll have an HIV test even though I really had not done so much [sexual] activity or anything and really, I'm safe, but I thought "what the heck I might as well check this out." The guy there was really nice and…it has been quite a while.

Participants also discussed the social and community factors that affected not only their health, but also the health of those around them. As mentioned, Deborah felt that her health care was compromised once her provider found out she was a lesbian, with the provider going as far as to voice his discomfort with same sex relationships. For Deborah, the challenges accessing health care extended from physical to mental health care. Sharing her experience in seeking marriage counseling, she stated:

> She [wife] got very depressed. It caused a lot of trouble in our relationship. We tried to find a therapist to help us through it and we had so much difficulty finding a therapist that would counsel same-sex and then when we did find someone that would counsel, it was still very predominately [a] male/female [viewpoint]. You know what I mean? The therapy was. That was very difficult. We actually had to drop out of therapy. I mean, thank God it all worked out, but that was a very hard point for us.

The lack of social services available to rural aging gay and lesbian individuals also influenced participants' overall quality of life. As one lesbian couple, who had lost their jobs explained, even when there are social services, aging gay and lesbian individuals may be fearful of accessing them:

> I didn't want to take any chances. Since they're a Christian organization. I don't have any problem with that. The lady offered to pray for us, or with us and I said, "yes, absolutely" you know. Cause we identify as Christian…but a

> lot of people think that's an oxymoron around here. That you can't possibly be gay and be a Christian too, you know.

All experiences with medical professionals were not negative. Wilson, age 53, reported that he had overall positive experiences in identifying affirming providers to access health care, stating, "No. I've been lucky. I have a doctor who wears a rainbow flag pin because he wants people to know that they're welcoming and inclusive. He [the doctor] is straight, and was in the Navy. That's very rare."

While opportunities to access care from providers who are more welcoming of sexual minority identities do exist, they are limited. Wilson, who retired from a career in government and organizational work, was able to afford to travel to seek care from providers he trusted. Not all rural aging gay and lesbian individuals have these options. Individual's perception of their health care provider's acceptance of their sexual identity influenced if and how often they sought care. Some participants felt they had little to no options in seeking health care providers, while others felt that they had the option to search until they found an affirming provider.

When comparing and contrasting the gay male and lesbian experience, aging rural gay men appear to focus more on the physical manifestations of health. Aging lesbian individuals appear to push physical manifestations of health aside, even though quantitatively, lesbian participants reported overall poorer health outcomes. One lesbian participant, who was homebound following double knee and back surgery, discussed her overall health status in terms of what she could and could not do, stating, "I definitely have some limitations, but I've learned over the years how to work through those and keep to myself generally." Henry (age 67, gay, white) discussed his overall health in relation to others and his younger self, stating:

> Overall, I'd say for someone the age that I am, probably a lot better off than some. Of course, I wish some days it was a little better, that I could do what I did when I was 20 years old, but it's not gonna happen.

Health and access to care was a very important factor in the interviews.

5.6.3 Discrimination and Victimization

Discrimination is another prevalent theme in the interviews. Looking at discrimination and victimization, once again, past experiences and historical changes emerged in an interview. Pat (lesbian, age 68), a married stepmother of one, described the historically hostile environment faced by gays and lesbians "…back then it was very hard to become openly gay… especially for women… I mean you really got it… we didn't get beat up like you guys [gays] did but we got slandered." Clearly, this negative experience continues to linger in her memory and influence her beliefs and actions today.

The fear of discrimination and victimization extended beyond the participants to how their family members were perceived. Interactions in educational environments discussed only by lesbian participants provided another venue that required careful negotiation. Overall, the concern was not for the participant, but their child or grandchild. Participants feared how their children or grandchildren would be treated if others knew they were lesbian. No gay men had children living in the home.

While the current fear among the participants does not seem to be connected necessarily to physical violence, there remains a fear of more subtle victimization. In the case of Diane (age 56) and her spouse, Marlene (age 55), concern for the grandchild existed despite their differing feelings on disclosure:

> Diane: I was just gonna say, I don't even feel comfortable going to my granddaughter's school, participating, things like that because people look at us funny. We keep to ourselves. We very rarely go anywhere except over to her daughters.
>
> Marlene: You know, I went out on a field trip with [granddaughter] school because she asked me to go. You know and everybody was friendly and talked to me and that kind of stuff, you know, but like I said they are not real overt about it. They're not like up in your face.

Deborah and her partner were so concerned about interaction within the educational environment that they are considering homeschooling their son. They felt they had an obligation to educate their community regarding LGBTQ populations, but they were unsure if it was worth allowing their son to face threats to do so. As they are just now moving from one rural area to another, one in which they do not know anyone, they are even more afraid. She stated:

> We're actually contemplating homeschooling him. This is an opportunity to reach a population of people that we couldn't reach otherwise, to try to educate on the LGBTQ community as well as faiths and different things. But we're really concerned about the school. It's a very small, small minded school. We may homeschool him.

In some instances, feelings of discrimination turned into victimization, with participants reporting individuals taking actions against them to threaten and scare them. Recalling when he was younger and moved back home, Frank shared, "People up here would say things. They would attack me. Pull guns on me and throw things. One night I saw someone in white out sneaking behind my house and I pulled out a gun and chased them around a mountain." Frank shared that he reported these incidents to his local police department, but that he could not be sure if members of the local police department were not involved. Either way, they did not take any action or follow-up. Other participants

shared that often it was too complicated to overcome the existing assumptions around lesbian and gay identity that had permeated their community.

Despite high identity congruence in the quantitative data, identity concealment was discussed more often among participants than identity disclosure. Identity concealment affected individuals beyond the development of networks, but also when attempting to access care and social services. In many instances, due to previous negative interactions with medical professionals who rejected lesbian or gay clients, individuals would withhold their sexual identity. As Babs (age 55, lesbian, white), who reported more identity concealment, shared:

> …we have had difficulty finding a steady medical provider because – discrimination might be a very harsh word – but once they found out that I was a lesbian, for example, and they found out that my wife was, they treated us completely different and refused to, at one point, they refused to let me pick up her medication. They refused to give her information for me. Yeah. It was just very awkward, and the doctor actually at one point told me that he did not believe in same sex relationships.

For Babs and her partner, identity concealment became something that was required of them to seek health care, community resources, and engage in the community.

Discrimination can manifest in a variety of ways. For some participants, discrimination emerged in not living up to cultural norms pertaining to femininity and masculinity. Participants demonstrated that expectations of masculinity and femininity differed from what might be typically expected within rural communities. From the discussions, it seems that while expectations existed for both groups, it was greater for females than males. For Beverly (age 68, white, lesbian), expectations of motherhood and femininity limited her access to care. When asked about her access to medical services,

she explained how expectations of motherhood and heterosexism could lead to limited health resources:

> Yes. After…after I first came out, I was a little leery because, you know, if you're going in for female issues. If you're going in because of a gynecological problem, you know, they…they assume that it's because you're having sex with men or you know that kind of thing. Then, when I needed a hysterectomy they asked me 500 different kinds of ways if I was sure I wanted to do this and I said, "Look, I'm a lesbian. I don't want kids."

The expectation of femininity that existed for lesbian participants does not appear to be the same for men and masculinity. In both instances, participants reported feelings of stress and anxiety in meeting socially ascribed characteristics and behaviors. There were conflicting views as to whether the social environment of their community contributed to additional stress or not.

Interestingly, one participant shared what he felt was a buffer from discrimination. Jeff (age 56, gay, white) felt his status as a community insider, having been born in the community, provided a buffer against expectations and judgments from others in the community. He stated, "Remember, I had hinted to that earlier. I think it's because I'm from here. That's why the people are so accepting of us because everyone is like, 'Oh [name], how are you and [partner] doing?' 'Well, we're doing fine. Thank you." While initially surprised by this, he and his partner had come to enjoy it. They no longer thought about being gay in the community. While at times some negative experience would occur, particular to his Latino partner who immigrated to the United States, once he was associated as being Jeff's spouse the situation would defuse. Jeff's insider status was extended to his partner.

Abuse and discrimination could happen at the community level, but it could also happen at the family level. Carl (age 53, gay, white) was unique in that he felt abused by both his community and his father, even before he self-identified as gay:

> …I don't feel like I probably fit in with most of the people you've probably talked to just because it's…I almost feel queer, queer, queer type of thing. Where I knew there was a difference, but then with my parents, especially my dad, and then at school, I don't, wasn't like a little nelly, you know, prissy kid. I was small and quiet and I wanted to not be messed with in types of situations. And then I was always getting bothered. I mean, I was even bullied by my father cause he know…he realized, oh there's a problem here. I wasn't what he expected and it was…I was stressed out all the time. And where it didn't always manifest into anxiety attacks cause I held it in …you know long story. But coming out, to friends, not necessarily relatives just because I was just terrified of all the hassles it would cause.

Due to discrimination and abuse, Carl's experience illustrates how individuals can experience identity disclosure in some aspects of their lives while remaining concealed in others. Navigating identity concealment and disclosure can result in undue stress on the individual. It also requires individuals to navigate their multiple competing identities. In rural environments, navigating these competing identities can be challenging because of the more limited geographic and social context in which individuals may be trying to both disclose and conceal their identity. Like Carl, many individuals begin to develop multiple identities among different groups as a means of coping with the desire to both be out and remain hidden.

Gay men appear to be more aware of perceived social stigma and social exclusion, or at least were more likely to report this lesbian participants. Frank felt that the social stigma and social exclusion that aging gay men experienced was so severe that he recommends people to not come out.

> We just have to be careful. Ya know. I never wanted to be in the closet, but people come to me now and ask what they should do and I tell them don't. They don't need to deal with all of that here. There is too much. I wouldn't wish it on anyone. You have to be sure. The young people today have it just as bad. They have basically forgotten about me because I am old, but when they come and ask what they should do I tell them don't come out. It was so bad for me. I haven't forgotten that. I mean they sent me through hell. I was one of the first ones out up here. I came out because I knew what I wanted to be. You know as soon as you start puberty, really before that. I just realized what I was and didn't want to live a lie. But if people ask me, I tell them don't. It was hard. I think it has gotten worse for the young people with that guy in the office. Everyone started being full of hate again. You learned about people – people you hung out with – how they really feel.

Frank described himself as one of the few self-identified LGBTQ community members in his town. His experiences of social exclusion and stigma could affect an entire generation of his community's LGBTQ population to not self-identify or to feel as though they must relocate to self-identify. After stating that she felt aging gay men had a harder time than aging lesbians and experienced more stigma and isolation, Lorraine (age 72, lesbian, white) offered this opinion on why this might be the case:

> Because men are the ones that set the precedent and attitude of the world. And men have a defensive mechanism that kicks in over gay men, they are like…I can't be nice to you people, people think I'm gay. You know, their insecurity…I think men are more biased toward gay men than they are toward women. They have a sexual fascination with gay women.

Perhaps connected to their age and stage of development, some lesbian participants felt the need to improve the culture and decrease discrimination by helping others in their situation. Aging rural lesbians appear to internalize more negative experiences and to tie these experiences back to their status and experience as a doubly marginalized individual – female and lesbian. As a result, aging rural lesbian individuals seem to be more aware of broader community issues and their social environments. One

participant shared that despite she and her spouse's challenges in the community, they hope their experiences and work will make it easier for the upcoming generations.

> I don't know that I will, but like I said before I think it's an opportunity to educate because my wife and I both have experienced some very harsh events in our life because we were lesbians. We really, at this point, want to try to pave the way for some of the younger generation. For people like you or our kids or son if he turned out to be gay. We really want to open those doors for them and now is the time.

Like other aging rural lesbians, they sought to understand their experiences within the context of what is occurring in the community and how the community is responding.

> Yeah. There's a lot that we've got to work on as far as acceptance there. We're moving into a community that is gosh, I think the actual census of this little town we're moving to is something crazy like 80, which there's a lot of in that because the census isn't accurate, but there's three churches there. They're very, now we've, they've been very nice to us thus far. The people that we have met. However, the community in general is very judgmental, very condemning. We're wanting to work on acceptance in that community. We're hoping to promote events, not just for the LGBTQ community, but for example, we found out that there was a whole Mexican population that has been, become outcasts of that area.

In this case, they want to work to improve the experiences of LGBTQ members in the community, as well as other marginalized groups. It was not uncommon for participants to associate their experience with other marginalized groups. They sought to downplay the discrimination or marginalization they had experienced.

Overall, participant interviews highlight some of the complexities in navigating life as an aging gay or lesbian individual living in a rural environment. Responses bring to light the connectedness between structural contexts and how they affect individuals' lived experiences. The actions derived from being exposed and navigating these multi-level contexts, in turn, impact individuals' health and wellbeing.

CHAPTER 6: DISCUSSION

Findings from this study are discussed in this chapter. The chapter concludes with a summary of the key findings.

6.1 Influence of Rurality

Contrary to my expectation that rural environment would lead to primarily homogenous networks, it appears they lead to the development of heterogenous networks. Rather than leading to the development of networks that were primarily homogenous or consisting of frequent and direct ties, aging lesbian and gay networks consisted of persons who were available to them. Participants supported this finding in their interviews, reporting that they developed their networks based on geographic proximity and their social need with little regard to individuals' perceptions of them based on their sexual identity. Individuals have the option of not developing a network or developing networks based on who is available to them.

Margaret (age 70, lesbian, white) lived alone on several acres of land after her spouse died, and did so out of necessity. As far as she knew, there were only two other lesbian individuals in her area, and she did not like them. Since she was somewhat homebound following surgery, she relied on her neighbor a mile away. The neighbor, also a widow, served as Margaret's primary outlet to the world. Henry and Peter maintained networks composed primary of heterosexual individuals out of preference, preferring the company of heterosexual couples to that of gay and lesbian. In part, they shared, this was from being around other LGBTQ people for years when they were activists and viewing engagement with heterosexuals as a way of decreasing homophobia.

Identity congruence did not influence the composition of the networks, as individuals felt afraid to disclose their identity to their fellow community neighbors out of fear of backlash. As a result, participant networks were divided with limited redundancy. Participants kept somewhat divided networks, putting friends and family into separate groups. They further divided their networks among those who were affirming, and they could be open and out around, and those they could not. As participants such as Peter, Frank, Henry, Loraine, and Pat discussed, often they kept their identities separate, thus keeping their networks separate. For Margaret, following the death of her spouse, this became almost a requirement, given that she did not like many of their joint friends.

Participants who returned to the rural area they grew up in or those who had never left, reported feeling their community was more accepting than they might have been toward an outside LGBTQ individual moving into the community. Participants felt as though this was in part due to familial relationships that existed in the community and the participants' history in the community. The accepting nature of these communities extended to the participant's spouses, and where applicable, their children. However, acceptance was only present when individuals were aware of the association. If they did not know there was a relationship between the partner and the local individual, then discrimination could still occur. They felt it was harder for community members to be entirely against someone they have known their entire life. Gay men, in particular, discussed feeling more at ease in the county they grew up in than when they lived elsewhere. In part, this may explain why aging gay men in the study were less likely to conceal their sexual identity; more of them had remained in or had returned to the county

where they grew up in. Although they may report more regret regarding their experiences as being an out gay man, they at least felt they could be out. Nevertheless, the majority of participants did express a desire to have greater LGBTQ connections.

6.2 Gender Roles and Expectations

Lesbian individuals' role as caregivers may, in part, explain their smaller networks as compared to gay men. Of the twelve lesbian participants, eight were serving as the primary caregiver for a spouse, child, grandchild, or parent, and two others reported previously serving as caregivers. By comparison, only two gay participants discussed having served in the past as caregivers for their family members in the past. Lesbian participants were more likely to report being a caregiver than gay male participants. In serving as a caregiver, lesbian participants' time to develop connections outside of the family was limited. In part, it would seem that while lesbian networks are larger, in cases such as Loraine and Pat, their networks consist of individuals from their children's school and work, where there isn't any real connection.

Conversely, given Eddie and Glen's proclivity in avoiding people, their networks consist of only individuals they want to engage. Although participation in caregiving and school networks may have provided the opportunity for further connections, there is a fear of identifying as a lesbian (or gay) individual in these environments. Two lesbian participants talked about how their networks had been expanded because of their school-aged children, while two spoke about the need they felt in hiding their sexual identity among their grandchild's peers' parents.

Irrespective of sexual identity, gendered expectations of caregiving exist. Culturally, caregiving is viewed as a female responsibility. Even though aging lesbian

participants may be considered to be different by the broader culture, there remains the expectation that they fulfill traditionally feminine roles (Guberman, Lavoie, Blein, & Olazabal, 2012). Challenges related to caregiving remain the same (Rose, Noelker, & Kagan, 2015). Aging lesbian caregivers face burnout and limited tangible support for their caregiver role. As lesbian networks were more geographically expansive than aging gay male networks, there existed fewer opportunities for lesbians to connect to in-person network members who could provide tangible support. Since much of the interaction occurred from person-to-person through telephone and social media, there are limited opportunities for in-person networking.

6.3 Lesbian and Gay Aging

Many of the findings are not different than one would expect to find with any aging population (Fiori et al., 2007; Suanet & Antonucci, 2016). What sets these findings apart are the factors that led to their development. Rural aging gay and lesbian individuals face pressure to conceal their identity and subscribe to the heterosexual cultural norms. In attempting to meet these cultural norms and expectations, rural aging gay and lesbian individuals must manage multiple identities, many of which may be contradictory. For example, rural aging gay and lesbian individuals who have adopted a spiritual practice may feel devalued in their spiritual community based on how it views homosexuality. Participants may, therefore, abandon their spiritual practice, even if it was previously important to them. As a result, aging gay and lesbian individuals develop divergent identities, which may be at odds with one another. In seeking to manage these multiple intersectional identities, participants are attempting to maintain a sense of accepted cultural normality. In instances where aging gay and lesbian individuals stray

from these norms, they are ostracized. In response, aging gay and lesbian individuals seek to mimic the hegemonic heterosexual cultural norms and expectations as much as possible, while avoiding activities that might draw attention to themselves. They develop separate, smaller networks. As much as possible, they attempt to create networks that support them with their identity, but appear to recognize the need to have network participants that may not readily accept them, but are a needed resource.

6.4 Networks and Isolation

In this study, rural aging gay and lesbians reported higher rates of social isolation than the national average, but their networks were not primarily reliant on urban-based participants. Related to the development of rural gay and lesbian aging networks, it was thought that a major factor affecting their development and use would be social isolation. As discussed in Chapter 2, social isolation is a major health inequality affecting the aging population and can be exacerbated in rural environments. The literature points to gay and lesbian individuals reporting greater social isolation, with gay men reporting the highest rates (Fredriksen-Goldsen, Bryan, et al., 2017).

The PROMIS Instruments were calibrated to a national sample where a score of 50 is the average for the United States population. PROMIS assumes that a score of 50 is most likely more socially isolated than the average individual (PROMIS, 2016). Under these assumptions, rural aging gay and lesbian individuals report greater social isolation than the general population. In-depth interviews support this finding, as themes of social exclusion were predominant in interviews with aging rural gay men, and themes of loneliness and feelings of being disconnected appearing in both groups. Gay men discussed social isolation and feelings of loneliness more often. It would appear that

lesbians are less likely to divulge that they feel alone, perhaps due to the expectations of femininity regarding the childrearing and caregiving they are expected to perform. Additionally, six (50%) were part of a married couple who participated in the study. There is the possibility they felt they could not discuss feeling isolated with their spouse also participating in the study.

It is not surprising that rural aging gay and lesbian individuals report higher rates of social isolation, or person and societal engagement. Gay and lesbian individuals in rural environments have fewer opportunities to engage with other members of the LGBTQ community (Butler, 2017). It was often stated that participants wished for more opportunities to be engaged in the LGBTQ community. The lack of an LGBTQ community in their area was often discussed. Furthermore, they may limit their participation in the broader community out of fear. The limiting of participation seems to be particularly true for those who are not from the community in which they reside. While existing research would indicate gay men would self-report higher rates of social isolation than lesbian females, this was not the case. Quantitatively, lesbians reported higher rates than gay men. Yet, when reviewing the combined qualitative and quantitative data, it appears that gay men have more feelings of isolation and loneliness than lesbians. Gay men were more likely to discuss social isolation than their lesbian peers.

In particular, the lack of LGBTQ community appears to affect gay men more than lesbians. Gay men highlighted that often an individual's only connection to the gay community may be a partner. Once that partner dies, all connection to the LGBTQ community could be severed. Although gay men discussed the isolating experience from the passing of a partner more often, lesbian participants also highlighted the role that

death of network members plays in disconnecting individuals from the broader LGBTQ community. In instances where the deceased spouse was more of an extrovert than the widow(er), network shrinking may be more pronounced. In the case of Margaret, the death of her spouse resulted in her network rapidly shrinking as she withdrew into her home.

Fear of being ostracized can affect the development of networks and also lead to limited contact with the outside world. Aging gay and lesbian individuals may fear engagement with others in their community. They may also feel as though there are no options for them to access services. Or, as in the case of Diane and Marlene, accessing resources would further expose them to ridicule and discrimination. The combination of identity concealment, fear of community response, fear of individual response, and already smaller networks contribute to rural aging gay and lesbian individuals facing higher rates of social isolation. These individuals may be fearful of accessing services or introducing themselves to new individuals, not knowing the response that will follow. They may be fearful of organizational practices as it relates to LGBTQ populations. They may also have previous negative experiences with organizations that now prevents them from trusting any organization or resource.

It is somewhat surprising, given the social isolation present in this population, that rural aging gay and lesbian individuals have not developed more urban-centric LGBTQ networks. The demographic similarity measures reveal that aging gay and lesbian individuals rely on individuals of a similar age who also live in rural environments for support. The majority of their networks reside in the same or adjoining county. While participants spoke of urban network members, and of traveling to urban environments for

care, they primarily relied on rural network members. As Margaret's case shows, this is in part due to access to the individual. As she is homebound, she is unable to access urban environments. In the case of Glenn and Eddie, they have no real desire to travel and thus build networks based on who is around them. Donna and Vicky prefer to avoid cities; whereas, Dianne and Marlene cannot afford to travel to urban environments.

6.5 Urban/Rural Networks and Access

In many cases, urban areas are the primary locations rural aging gay and lesbian individuals can access health care and other community resources. Individuals are traveling to urban locations, but they are not developing networks in these environments. Existing literature would suggest that rural aging gay and lesbian individuals would rely on such networks, in part because of the information that LGBTQ urban network members can provide (Jenkins-Morales, King, Hiler, Coopwood, & Wayland, 2014; Lee & Quam, 2013). Although communication may be limited, urban network members may have access to resources and information not available in rural environments. While these relationships may not consist of physical meetings, they provide rural LGBTQ individuals access to increase in-community knowledge and resources. For example, although gay men, particularly those with a diagnosis of HIV/AIDS, relied on urban care centers, both groups primarily relied on people in close geographic proximity for assistance in making health care decisions. As Jeff shared, this was due to rural areas not providing access to the medicines needed. In other instances, the health care providers were not willing to engage with gay or lesbian clients.

Lack of engagement with more urban networks highlights the strong sense of rural identity that participants reported. Although individuals may have revealed that

they do not enjoy living in their rural environment, the majority stated they felt they could not imagine living elsewhere. There is something attracting individuals to rural environments, even with the challenges of health care, social support access, and identity concealment. The non-use of urban networks may also be related to the shrinking of networks that occur in older age (Carstensen, Isaacowitz, & Charles, 1999). One explanation for the lack of urban-reliance may be that as individuals have aged, their networks shrunk to the point that they now exclude urban participants, as discussed below. There is future opportunity for analyzing participants' self-reported social networks and their feelings and descriptions of these networks.

In Kentucky, Tennessee, and West Virginia, the geographic distance between cities and between participants' rural home and urban centers limited the development of these networks. Participants who drove to urban centers for care did so due to the lack of options available to them in their community or a lack of trust in these facilities. In these instances, trips to receive health care could take a day or more, given travel both ways and the actual appointment itself. It is likely that individuals would not develop urban networks due to the energy and resources required to maintain them. It could not be reasonably expected that they would be able to both travel to their appointment and make time to see network members.

The rise of the internet and social media created new methods of developing and sustaining relationships. While participants may engage in communication with urban individuals through social media or other electronic means, they did not necessarily consider them part of their support networks when describing their social network. It appears since these social media contacts are not physically present, even

though they provide support, they are not viewed as being a network member. In some ways, this may be a generational effect that will not be present in generations who have been exposed to social media throughout their lives.

6.6 Social Networks, Identity, Health, and Quality of Life

It was assumed that the larger the network, the more access to information and resources, the greater the self-reported quality of life would be. This did not hold in this study based on the quantitative data collected. Additionally, while participants with larger networks appeared to be happier, this was not the case according to the quantitative findings.

Despite previous scholarship, denser social networks did not result in reported higher levels of quality of life (Ajrouch, Fuller, Akiyama, & Antonucci, 2018; Fredriksen-Goldsen et al., 2015; Kim & Fredriksen-Goldsen, 2016). This findings show the emphasis on denser, more supportive networks, with quality of life and health as supported through the convoy model of social relationships, and similar research with aging LGBTQ populations (Antonucci, Birditt, Sherman, & Trinh, 2011; Erosheva et al., 2016; Kahn & Antonucci, 1980). As discussed, while networks may be large, they may not consist of fully supportive individuals. They may be composed primarily of individuals who are not accepting of the participants' lesbian or gay identity. They may be comprised of only individuals readily available to them in their rural community.

Networks were developed on need and geographic closeness, not necessarily on individuals who shared interests or experiences. Networks, therefore, would not necessarily be associated with a higher quality of life. A network, larger in size but consisting primarily of individuals whom participants hid their sexual orientation from

could lead to lower rates of quality of life. As several participants stated, this was very much their experience. They avoided discussing LGBTQ issues with those in their network, feeling as though they are unable to be themselves around network members, or that they are required to adopt different personas based on network interactions.

6.7 Influence of Identity

Findings supported the idea that there is a positive relationship between identity congruence and quality of life. Participants with greater identity congruence did report higher rates of quality of life. This finding confirms that individuals who limited concealment of their sexual identity and externalized their internal feelings experienced a higher quality of life. Throughout the interviews, it was clear that participants who appeared to be more at peace with their identity were able to access health care, identify supportive networks quickly, and feel more at ease. When comparing someone such as Frank, who feels as though coming out was now a mistake, with someone such as Vicky, who is out, proud, and reports not seeing any challenges in her community to being LGBTQ, it is clear that there is a different perspective and outlook on life. These differences in perspective may drive healthy outcomes and quality-of-life.

Aging gay and lesbian individuals have overcome a host of adverse societal events throughout their lifetime that have targeted their sexual identity (Bränström & van der Star, 2016; Fredriksen-Goldsen, 2017). Even so, for those who developed a congruent identity, there are opportunities for a higher quality of life. It seems that in these instances, individuals with higher identity congruence are more likely to develop supportive networks. They do not focus on the development of their networks as a buffer; rather, it is a way to support them in their lives. Participants with greater

identity congruence also seems more likely to seek out medical care from affirming providers who recognize the health inequalities facing the LGBTQ community. They appear to be more likely to advocate for themselves when accessing resources. Notably, they also appear to be more well-educated with higher incomes than those with lower levels of identity congruence. They view their sexual identity as a key component to their overall identity and are less likely to negotiate their identity with others. As a result, they may be more likely to have greater self-reported health. Likewise, participants with greater identity congruence appear to be more likely to take advantage of community and health services and to work through issues related to accessing the services as an LGBTQ individual. Although they may be fearful of the reaction of providers when they disclose their sexual identity, those with greater identity congruence are more willing to take those chances.

Individuals with lower identity congruence may avoid seeking medical care or aging services out of fear of disclosing their sexual orientation. The lack of interaction with health professionals and service providers can result in higher rates of social isolation and a decrease in quality of life. They may not seek out new network members, as is the case with Frank, for fear of being ostracized as they have been their entire lives. The fear of disclosing sexual identity negatively impacts their overall health and wellbeing. Through encouraging and developing programming that supports aging individuals living in the closet, it may become possible to reduce rates of social isolation and improve quality of life.

6.8 Individual Network Complexity

There was no doubt going into the study that individuals are complex. They are composed of a multitude of identities, beliefs, and experiences that shape them (Crenshaw, 1989). One goal of this study was to further expand our knowledge on how these identities shape the development of social networks, and, in turn, affect identity, health, and quality of life. Rather, findings showed the inherent complexity in attempting to parse out these various identities, especially among a marginalized community. It was not possible, based on this study, to fully grasp the impact that age, lesbian or gay identity, and rural status/identity had on individuals.

It does appear individuals develop networks in part based on their lesbian and gay identity. They seem to keep separate their LGBTQ and non-LGBTQ identifying networks. Whether this is a feature of rural environments or part of the lesbian and gay experience, cannot be ascertained. Additionally, while rural environments seem to influence network development through access to potential network members, it is uncertain whether this is a result of their identification as lesbian or gay or a feature of rural environments. Rural environments have small populations and thus choice of network members is constrained. Whether the limited rural networks are specifically a result of their lesbian and gay identity or just a feature of the rural environment cannot be determined.

In this research it was not possible to fully describe the impact of age, sexual identity, and rural location/identity on networks, findings show a need for further research. It is clear that independent of one another, age, sexual identity, and rural identity/location influence networks. Yet, the exact impact, and how age, sexual identity,

and rural identity/location mediate and moderate these effects remains unclear. Further research with a larger population and more specific measures and questions regarding identity, identity congruence, and networks and identity is needed. The engagement of participants through more in-depth personal interviews delving into the development and use of their networks, beyond quantitative measures, could also provide an avenue for understanding these influences.

6.9 A Socio-Ecological Model of Understanding Aging Gay and Lesbian Experiences

A modified socio-ecological model with special attention to the structural, individual, social position, and life span factors was employed in guiding this research. The model assisted in the development of questions, identification of survey instruments, data analysis, and discussion. The goal of focusing on a socio-ecological model, specifically on the experience of gay and lesbian individuals, was meant to allow for a more productive analysis of health and social environments. As previously discussed, it was hoped that by embedding aging lesbian and gay individuals' development and use of social networks, support, and social capital within the ecological system and an intersectional approach, would make it possible to gain a fuller understanding of how these factors influence social networks, identity, health, and quality of life.

The socio-ecological model provided a structured framework in which to collect, organize, and analyze data. Through this approach, it was possible to map findings onto the model, quickly identifying areas of divergence and gaps. The model provided a specific structured framework for understanding the experiences of rural aging gay and lesbian individuals. The embedding of a lesbian and gay intersectional approach within a socio-ecological model allowed for greater depth in the analysis of data. The use of the

socio-ecological model in this study identified several significant revisions needed for future work.

First, there must be clearer connection between the broader socio-ecological context and the multi-level structural and individual level context. While the impact of the individual and structural context of LGBTQ identity cannot be overlooked, additional work is needed to fully grasp how these factors affect the varying levels of a socio-ecological approach. It is clear from this study that discrimination and victimization played a major role in affecting individuals' lives. While some specifics were provided by participants, the questions did not lead to a full discussion of the precise impact of discrimination throughout their lives and interactions. Second, as discussed, not enough attention was given to measuring and discussing age and identity to fully parse them out. If life span and social position are to be used, they must be fully engaged. A more detailed discussion of participants' life spans would have assisted in building life histories. Life histories could have provided greater context to participants' current feelings and experiences. Finally, while the model was adapted to take into consideration the experience of lesbian and gay individuals, not enough attention was paid to how rural locations and rural identities may interact with these identities. While intersectionality and community are included in the socio-ecological approach, further questions targeting these domains were needed to fully engage these concepts.

6.10 Summary and Implication of Key Findings

The findings of this research highlight the collective need to continue research into sexual minority aging, and rural sexual minority aging. Specific Aim 1 explored the development of networks. It highlighted that assumptions developed from extensive,

primarily urban, national surveys do not hold in rural areas. Rural environments do appear to affect the development and compositions of social networks, however, not in the direction predicted. Rather than supporting more homogenous networks for support, participants developed less homogenous networks based on availability for support. Participants were quick to point out that in many instances, the development of their networks was based on who was near and available to them. In the development of social networks in rural areas, other factors override the influence of gay or lesbian identity. The influence of rurality appears to trump those of sexual orientation.

Specific Aim 2 focused on the use of social networks among aging gay and lesbian individuals. Aging rural residents did not primarily rely on urban-based individuals for their support and decision-making. However, participants did travel to urban environments for care and in many instances, had network members in these locations. As rural residents, participants focused on the development of networks close to them, even if the networks were not as supportive or as helpful as they desired. Participants developed networks even if the networks required the concealment of their identity. Some participants reported feeling that if they did not disclose, they would not be able to find network members. Lesbians reported greater identity concealment according to the Nebraska Outness Scale; gay men reported greater concealment during their one-on-one interviews, than represented in the measure. Rural gay and lesbian individuals reported higher rates of social isolation than the national averages of the general population.

Specific Aim 3 sought to address the relationship of rural aging lesbian and gay individuals' social networks, quality of life, health, and identity. There was no

relationship between the size of an individual's social network and quality of life. Participants felt as though some relationship between network size and quality of life existed, even if it was not expressed within the assessment tools. There was a positive correlation between an individual's identity congruence and quality of life. Individuals who reported greater identity congruence also had higher quality of life outcomes.

There is a need to continue research that examines the depth of the aging experience among sexual minority individuals, but also considers the role of the environment. Specifically, there is a need for researchers to pay particular attention to the experience of rural aging sexual minority populations. Their experiences have often been overlooked, a limitation of much aging research. It is through the engagement of rural aging populations in research that we can be better prepared to address their health challenges. Further research must continue to seek understanding in the depth of aging individuals' experiences, rather than aim to collapse their experiences into larger groupings. Greater attention must be paid to ensuring identities can be fully understood, and their interactions recorded. It is clear that aging lesbian and gay individuals in this study face many of the same challenges as rural residents, overall. The difference, it seems, are the factors that drive the development of these inequalities. Chapter 7 presents a more in-depth overview of the implications of the findings on future scholarly activity, as well as the limitations of the study.

CHAPTER 7: CONCLUSIONS, LIMITATIONS, AND FUTURE DIRECTIONS

This dissertation was developed to add to our understanding of the experiences of older rural gay and lesbian individuals. In recognition of the health inequalities and response to the lack of research conducted with this population, this work laid the foundation for greater understanding of the role of networks and rural locations on the health and quality of life in aging gay and lesbian individuals. In doing so, I hope to advance work seeking to reduce the health inequalities and improve quality of life experienced by the aging LGBTQ population.

Each of the Specific Aims of the study was developed to contribute to the growing literature on aging lesbian and gay health and quality of life and gerontological social network analysis. Specific Aim 1 contributes to understanding of the influence rurality has on the development of sexual minority social networks. Specific Aim 1 also assists in developing a deeper understanding of how rural gay and lesbian individuals navigate their intersectional identities within their social networks. Specific Aim 2 contributes to understanding the impact of rural environments and sexual minority identity in the use of networks in identifying services and decision making. Specific Aim 3 provides information relating to the impact social networks have on aging gay and lesbian individuals' health and quality of life, while pointing toward opportunities for improving health behaviors through these networks.

7.1 Suggestions for Further Research

The findings of this study identified three distinct areas of future research activity with rural, aging, sexual minority populations. The first focuses on the increasing need to develop targeted and tailored interventions for the aging rural LGBTQ population. These

interventions should include a network measurement component to ensure identify how networks are or are not being utilized. The second relates to methodological approaches needed to ensure continued engagement with the rural aging LGBTQ population in research. The final is concerned with the continued development of appropriate theory to guide ongoing network and aging and specifically LGBTQ aging research.

7.1.1 Methodological Considerations

Research that seeks to engage marginalized aging groups, such as rural gay and lesbian individuals, faces unique challenges related to recruitment of participants, collection of data, and translation of findings. Recruitment of aging gay and lesbian individuals remains a challenge throughout the health sciences. Researchers attempting to recruit rural aging gay and lesbian individuals face the additional burden of having to identify informal networks in which to recruit (Erdley, Anklam, & Reardon, 2014). In all instances of research with sexual minority groups, it is critical that participants not be outed in their community. Although some participants may feel they have no identity concealment, the researcher should not contribute to identifying the individual as a sexual minority. As a result, it is challenging to recruit within the informal networks of rural LGBTQ communities. The engagement of participants requires trust among the researcher and participant. As an outsider, it was challenging to be wholly engaged with the rural aging gay and lesbian community. Feedback provided throughout the study by participants on recruitment materials was vital to increasing the participant pool. Participants identified challenges associated with the traditional recruitment strategy that was being employed, including a reliance on rainbow imagery and LGBTQ-exclusive

spaces that would hinder their participation. Researchers should continue to work with aging LGBTQ populations to identify methods of outreach that are appropriate.

As demonstrated in this study, the development of hypotheses and Specific Aims based on the existing urban data is not useful. Even when modifications are made based on assumptions of rural environments, there are still gaps when the modifications are primarily informed by urban data. Although much of the scholarship focused on sexual minority aging populations does not distinguish between sexual identities and geographic location, it is clear that work is still needed that seeks to understand these differences. The experience of aging gay and lesbian individuals in rural environments requires further insight to improve their lived experiences.

One unexpected outcome of this research was my recognition that there is a need for more reliable and validated measures, specifically for the aging LGBTQ population. The majority of measurements used in this dissertation were adapted from instruments with heterosexual language and terminology. It is unknown what effect altering the language of the instruments for use in LGBTQ populations has on the reliability and validity of the instruments (a topic beyond the scope of this study). For instance, in quality of life measures, questions on the joy children/grandchildren have brought you, may result in LGBTQ individuals reporting a less fulfilling quality of life when, in actuality, they did not have the opportunity to experience children or grandchildren (Haas, 1999). The removal of these questions changes the calculation of the instrument. Similarly, in measures of community health access, individuals may not access services due to a lack of availability or affordability, but out of fear of being outed. Although not

necessarily an issue in this study, the gendering of questions such as "his/her experience" does not represent all gender expressions.

While some instruments have been specifically designed for use in the LGBTQ community, the majority were developed before the turn of the century (Herek, 1994; Mayfield, 2001). These instruments also require modification to remove gay-prominent language and recognize the diversity in the LGBTQ community. It is now widely accepted that 'the gay community' does not represent the entire LGBTQ experience but only the gay community experience (Rimmerman, 2008). Likewise, the phrase "gay woman" has been replaced with "lesbian."

In all instances of modification, it is unknown what effect the alterations have on the reliability and validity of the instruments or the construct under measure. While some researchers have worked on the development of LGBTQ-affirming and specific survey instruments, this has not resulted in a wide array of available tools. It is also not feasible, as some have done, to completely validate every changed measure prior to the start of a study (Fredriksen-Goldsen et al., 2015). In doing so, the researcher delays the work and eliminates potential participants in an already challenging population to recruit. Further work is needed to develop appropriate survey instruments for the LGBTQ community.

Finally, as one of the first studies to examine networks among rural aging gay and lesbian individuals, the findings provide an opportunity to support future work. Findings from this study raise questions regarding the nature of aging lesbian and gay networks and appear to contradict some of the existing literature, in part because of the existing urban homogeneity of LGBTQ scholarship. There is a dearth of research examining the experiences of rural gay and lesbian individuals, and even less focusing explicitly on their

networks. The majority of the science is based on a few limited studies that may have inadequate generalizability. The development of ongoing research regarding the networks of aging gay and lesbian individuals can better inform the development of innovative programs that seek to reduce health inequalities among the population. By identifying the characteristics of the informal and formal networks used by aging gay and lesbian individuals, it is possible to better develop and engage the community in health interventions.

7.1.2 Networks Theory Engagement in Gerontology

This study collected social network and health data at one point in individuals' lives. Some participants identified this period as one of success and peace. Other participants confided that they were undergoing a period of deep distress and insecurity. The integrated theoretical model that guided the study recognized the role of person-in-environment and the context in which individuals responded to the instruments. There is a need to understand the development of sexual minority networks across the life span through the collection of longitudinal data.

Existing life span network theories such as the convoy and socio-emotional selectivity theory posit that there exist specific supportive networks that are modified throughout the life span. Individuals can shape their networks to be supportive and enjoyable. In the case of sexual minority individuals, particularly in unwelcoming environments, it is unknown what control these individuals have in the development and shaping of their networks. The lack of potential network members may force them to accept potentially harmful members to fulfill supportive roles. The study also did not consider the role that online social media, particularly social networking-based websites,

could have in the development and maintenance of supportive networks, or differences that may exist between in-person and virtual networks.

As the study demonstrated, at least for older age, participants with higher levels of identity congruence seem to have a more significant say in the development and maintenance of their networks through identifying potential members and better engaging with the LGBTQ community. Whether the relationship between network development and identity congruence is consistent across the life span remains to be seen. Coming out, or self-identification as a member of the LGBTQ community, appears to have both negative and positive effects on network development and maintenance. It is unclear at which point networks become engaged in the broader LGBTQ community, or if they do at all. Findings from the study indicate that while informal LGBTQ networks do exist in rural areas that are geographically dispersed, they are not easily accessed and unknown to many.

The development of hypotheses that seek to address the role of social networks and sexual minority individuals over the life span, with special attention to older age, will have the added benefit of further engaging gerontology and public health in network analysis and network theory. Once a driving force in network science, gerontology has seemingly abandoned network science, while other disciplines have become more engaged. Likewise, network science has not been widely adopted in public health, despite the fact that it can explain much of the socio-ecological contribution to health outcomes. Network science and theory are positioned to help provide critical information regarding quality of life and health across the life span. The application of network science and theory in gerontology is uniquely suited to providing information regarding the

implementation and success of targeted interventions around mental and physical health among aging LGBTQ populations. The integration of these approaches recognizes the vital role of the individuals socio-ecological environment as a driver of health.

7.1.3 Tailored Interventions

The findings identify future possibilities regarding novel community-based intervention research focused on increasing health and health access among rural aging gay and lesbian individuals, with the possibility of expanding to include other sexual minority populations. The development of intervention research focused on sexual minority communities should be fine-tuned and appropriate for the sexual minority population included in the research. The recommendations below are based on work with the rural gay and lesbian population and thus may have limited benefit if applied to bisexual or transgender communities.

Issues of health and health access remain prominent in the population. Factors influencing health and health access include social isolation and loneliness, social capital, affirming health care, social program development, and intergenerational connections. Each of these factors is discussed below.

7.1.3.1 Social Isolation and Loneliness

There exists a need to address the issues of social isolation, loneliness, and intergenerational connectedness among the study's population. Social isolation and loneliness have emerged as one of the significant public health issues of the twenty-first century (McHugh-Power, Dolezal, Kee, & Lawlor, 2018). Social isolation and loneliness are now viewed as major predictors for increased rates of morbidity and mortality (Portacolone, Perissinotto, Yeh, & Greysen, 2018; Taylor, Taylor, Nguyen, & Chatters,

2018). While social isolation and loneliness can affect individuals of any age, aging individuals are viewed as having the greatest risk of experiencing social isolation and loneliness (Bruggencate, Luijkx, & Sturm, 2018; Poey, Burr, & Roberts, 2017). In part, the greater social isolation among older adults is due to the shrinking of social networks across the lifespan and the growth of a globalized economy that supports individuals moving further than ever from family (Halaweish & Alam, 2015).

Aging lesbian and gay individuals have a greater risk of isolation as they experience already shrunken networks across their life span and have more limited networks in older age (Kim et al., 2017). One possibility for addressing social isolation and improving the aging experience and quality of life for lesbian and gay individuals is the development of intergenerational connections. There exist opportunity for the development of intergenerational relationships. Participants felt that after a certain age, they were no longer part of the LGBTQ community or movement because the LGBTQ community was youth-focused. Similar feelings are highlighted in other studies (Muraco & Fredriksen-Goldsen, 2016; Ramirez-Valles, 2016; Ramirez-Valles et al., 2014). Given the increased attention to younger LGBTQ individuals and the identification of a need for positive role models and displays of LGBTQ culture and identity to these youth, there seems to be an opportunity to develop interventions that seek to foster intergenerational connections. In rural areas, these connections have the effect of providing younger LGBTQ individuals a mentor and confidence where they may otherwise feel isolated. For aging LGBTQ individuals the connection provides an opportunity to address social isolation and engage them in the LGBTQ community.

Ongoing conversations on how to best address increasing isolation and loneliness must consider the intersectional nature of our identities and recognize that one universal approach will not adequately address isolation among all populations. In developing programs to address social isolation and loneliness, it is necessary to recognize the social capital that exists in communities and the way communities themselves may alter the flow of resources and programs.

7.1.3.2 Social Capital

Recognizing the uniqueness of each community, both socially and geographic, requires an acknowledgment that communities do not have access to the same type of social capital. Some communities may have high levels of social capital due to the resource and governance contributions of community members. Other communities may hold high social capital due to their positions within society held by people in their community. In the case of marginalized communities, social capital varies depending on the geographic environment in which it is functioning. LGBTQ communities may hold high social capital in driving the development of policy in programs in urban communities, while being non-existent in rural communities. The connections of individuals and organizations blending their social capital can alter the development and delivery of social programs, such as those targeting the aging LGBTQ population in their respective environments. In many cases, developing LGBTQ-specific programming in rural areas will require the use of high levels of social capital and buy-in from stakeholders willing to expend their social capital. The prejudice and discrimination reported by participants highlight the challenge of introducing new programs into rural communities.

7.1.3.3 Affirming Health Care Practice

There is a need to more fully integrate the experiences of rural aging gay and lesbian individuals into the development of programming that targets the aging community, such as affirming care practices. Affirming care, also known as inclusive care, recognizes the experiences of LGBTQ individuals and their unique health care needs (Crisp, 2006; Porter et al., 2016; South, 2014). Affirming care does not make assumptions about heterosexuality, but rather provides a space where individuals do not feel as though they have to conceal their identity (Croghan et al., 2015). In these environments, medical forms and questions are developed in such a way that they do not make presumptions on an individual's gender, sexual orientation, or health care needs.

Affirming care also recognizes the specific health care needs of the LGBTQ population through preventative testing and treatment of common conditions experienced by LGBTQ persons (Dysart-Gale, 2010; Lanier & Sutton, 2013). Medical institutions that have adopted affirming care practices have shown greater patient engagement and satisfaction (Croghan et al., 2015; Dunkle, 2018). LGBTQ individuals who experience affirming practices have shown greater positive health outcomes and reduced co-morbidities (Croghan et al., 2015; Hilary, Daley et al., 2018). The identification of providers who deliver affirming care is but one part of developing a broader continuum of programs that support the LGBTQ community. This long-term care continuum of affirming practices can further assist in addressing the existing health inequalities within the population and provide outlets for connectedness among community members. The development of affirming programs and activities will have the added benefit of encouraging more individuals to live openly in their communities. In doing so, more

formal networks of support can develop to allow for a more accessible diffusion of ideas throughout the community.

7.1.3.4 Social Program Development

It is vital to recognize that not all rural communities have the same level of access or capital to develop new programs and activities (Agriculture, 2018; Lin, 1999; Majee, Aziato, Jooste, & Anakwe, 2018). Indeed, participants generally felt their communities did not provide adequate resources for aging and could not develop new programming due to a lack of resources. In instances where communities had existing resources, such as financial assistance, participants felt that LGBTQ individuals were either not welcome or that they had to conceal their identity. There did not exist affirming programming or services. Programs do not need to be new. When considering affirming programs and activities, they do not need to be separate programs specific to LGBTQ individuals. Instead, it is preferable that existing programs be better integrated to include aging LGBTQ individuals, rather than further separating them from the broader community.

In all cases, it is critical that the development of any activity be community-driven and community-owned to ensure buy-in and success. While some community resistance is expected, much of it may come from a lack of knowledge and positive experiences with LGBTQ persons (Daley et al., 2017; Kaufman & Raphael, 1996). Through programs that support community cohesion and encourage community participation, it is possible to begin to introduce the two seemingly separate communities (Canham et al., 2018). Given the high rates of self-reported religious affiliation in the study, places of worship have the potential to serve as central hubs for programming and activities. Places of worship could provide both affirming programming as well as add to the social capital of

the LGBTQ community in the area. Furthermore, there exists an opportunity for programs in rural areas to be supported by the urban-based LGBTQ organizations as a means of tearing down the rural/urban divide and notions of "queer urbanity" (Herring, 2007).

7.2 Study Limitations

Through the process of conducting this research, several challenges relating to recruitment, identification, and engagement of participants were identified. There existed additional challenges related to bias. These challenges highlight some of the complexity in researching with rural and sexual minority populations.

7.2.1 Identifying Rural Environments and Residents & Recruitment

As discussed previously, "rural" is a nebulous term with multiple conceptualizations. There is no one standard definition of rural (Agriculture, 2013, 2018; Bolin et al., 2015). Similarly, there is no one standard perception of rural identity among those who live in rural environments (Krok-Schoen, 2015; Weil, 2017). Throughout the recruitment process for the study, individuals would reach out and seek to participate due to their self-identification as a rural resident. Based on their county of residence, they would not qualify. Many of these individuals lived in small communities of between 600 and 2,000 individuals; yet, because the county itself was larger, they were not eligible for the study. Some participants in the study lived in cities larger than 2,000 individuals, but were eligible due to the county's overall population. Although the RUCC served its purpose as a tool for determining eligibility, it did not take into consideration the full experience of "rurality". The RUCCs provides a geographic definition of rural-based on the county but does not take into consideration county size or demographics. In the

future, there is a need for developing more nuanced eligibility criteria for the recruitment and retention of rural participants, one that takes into consideration the lived experiences, geographic isolation, city size, and access to resources experienced by individuals.

There are challenges in using such eligibility criteria. Participants may not self-identify as living in a rural environment. As rural is a complex term, the comparisons between rural areas will vary. Rural can also be thought of as an identity. Individuals can adopt a rural identity even in urban environments. Individuals in rural environments can adopt urban and rural identities. In this study, several participants stated they did not consider themselves to be rural, but recognize they do live in a rural environment. How might these identities affect future scholarship and program development targeting rural individuals?

I believe that there must be a mixture of both experiential and geographical data supporting the development of eligibility criteria for rural-based studies. Having experienced the challenges of relying on a purely quantitative measure, such as the RUCC, in the future, I will seek to use more nuanced definitions.

7.2.2 Challenges in Recruitment and Interview Design

As with any research, the recruitment of participants is of concern. Rural environments present challenges of access for the researcher. It can be difficult to access rural environments and rural participants when you are not fully embedded in the community (Hoeft et al., 2014; Puma et al., 2017). Travel to and from meetings with rural participants can take multiple hours and limit the number of interviews that can be conducted. The need for constant travel can quickly consume travel funding. It is not feasible nor fair to require participants, particularly marginalized participants, to travel to

urban centers for interviews. It is also not feasible for every researcher to embed themselves in a community for an extended period, nor is it appropriate for every form of research.

In the case of this study, the research protocol was updated to allow for phone interviews with participants. Phone interviews were meant to be used as a measure of last resort for participant interviews. As the research progressed, however, it became clear that many rural participants preferred to meet over the phone rather than in person. In part, this may be that telephone interviews required less disclosure on the part of the participant. At least two participants were unable to leave their homes and did not want me traveling to their residence. In these instances, phone interviews were the only way to engage them in the research process.

The use of phone and in-person interviews in the same project leads to challenges. While using the same questions and protocols, phone conversations tended to be shorter than in-person interviews. Phone conversations lacked body-language context. The process of collecting data, especially social network and quantitative survey measures, was most likely harmed. The use of phone interviews did allow for greater flexibility for myself and the participants. Phone interviews did reduce travel expenses that were redirected for advertisements and participant recruitment.

Recruitment of aging lesbian and gay individuals was a challenge. Research by Fredriksen-Goldsen (Fredriksen-Goldsen & Kim, 2017) showed aging gay and lesbian individuals are not as difficult to recruit as other researchers have suggested (Boehmer, 2002). In fact, despite recruitment challenges due to structural issues around fear and discrimination, aging lesbian and gay individuals appear to be interested in participating

in ongoing research as a way of remaining actively engaged within their community, when the research is accessible (Croghan et al., 2015; MetLife, 2010). In the case of this study, it appears in part that there was a limited potential pool of participants. In addition, the lack of available social networks and communication networks hindered the dissemination of information about the study.

Rural aging gay and lesbian individuals may experience some hesitancy due to a fear of community outsiders and the fear of "outing" themselves within a small community (Rowan et al., 2013). Within the rural and gay and lesbian communities, there may be the concern about an outsider coming in to collect information (Billings, 1974; Wahl & Weisman, 2003). Therefore, only individuals who are publicly out may have engaged in the research. It is not possible to make any claims relating to how the findings may differ if individuals who did not publicly identify as lesbian or gay participated. However, the research did include a variety of levels of self-reported outness. Participants may already be unique due to operating in a social environment where they were more inclined to see advertisements for the study than those who are not as publicly identifying, and thus may not have had the opportunity to see any advertisements. Every attempt was made to ensure a rigorous recruitment procedure. In-network connections were used to build trust and acceptance among potential participants. Existing relationships with gatekeepers were utilized to gain access to these communities (Valente & Pumpuang, 2007).

Bias may exist as participants seek to ensure representation within research studies and may constantly seek out such opportunities. A few individuals could represent the majority of the data collected for this population in a specific geographic

context. In addition, due to the wide-age range necessary for recruitment, there may be difficulty in generalizing the findings to the aging experience of rural gay and lesbian people beyond the survey population. Unfortunately, this is an all-too-common occurrence in aging and LGBTQ research (Kukull & Ganguli, 2012; McHenry et al., 2015). In reviewing the participants for this study, it is clear that some had the proclivity to participate in any available community activities. Despite these challenges, the findings from this research still contribute to our knowledge of rural gay and lesbian individuals.

One area of added concern relates to the use of egocentric social network data collection. One of the primary limitations of this research is recall bias (Brewer, 2000; Litwin & Stoeckel, 2016). Recall bias can manifest itself through forgetting key players or by name association with categories of network ties (e.g., an individual names a family member, then continues to unconsciously name family members) (Valente, 2012; Valente et al., 2017). Issues of recall bias may be exacerbated due to the aging/aged nature of the population and their ability to recall information. To combat recall, bias a slowed pace of data collection and multiple name generators targeting specific activities were used to gather the most reliable information possible. The addition of conversation throughout the process and qualitative data collection was used to triangulate data. Regarding the qualitative data analysis process, while seeking to maintain the rigor of the process, I was not able to implement every traditional step.

In engaging in future work with aging rural communities, it will be vital to use multiple methods of participant recruitment and data collection. Perhaps in future rural studies, it will be possible to rely on audio-visual technologies such as video-

conferencing to assist in data collection. Limited access to broadband in rural areas continues to be a challenge (Hladki, 2018). The mixture of both in-person and phone interviews allowed me to capture a diverse range of participants that may otherwise not have participated. It also highlighted the burden on both participants and researcher that need to be considered when researching rural and isolated environments.

7.2.3 Sample Size

The challenges in recruitment and retention resulted in a smaller sample size than desired. While every attempt was made to recruit participants for the study, only twenty-five individuals eventually participated. As previously mentioned, it was not for lack of interest. Many non-eligible, non-rural aging lesbian and gay individuals expressed interest. The challenges of rural identification, as discussed, prevented their participation. These challenges were exacerbated by the time dedicated to conducting the dissertation research.

The limited sample size prevents the analysis of the data by geographic or age stratification and other multivariate testing methods. Findings lack generalizability beyond the sample and can only describe the sample. The presence of several partner dyads may have resulted in less network variability than if all participants did not know one another. The sample does provide a snapshot of aging lesbian and gay individuals living in rural Kentucky, West Virginia, and Tennessee and their experiences. The findings from the study provide a basis for the development of future studies targeting the aging LGBTQ population.

7.3 Next Steps & Future Projects

Of the three distinct areas for future scholarly activity listed above, I see addressing social isolation and loneliness as the most logical next step in my academic career. As I have discovered, social isolation and loneliness are increasingly viewed as an emerging public health threat and a significant determinant of health and quality of life. Understanding and addressing social isolation and loneliness among aging sexual minority communities will be essential to reducing health inequalities and increasing health among these populations. I view increasing our understanding of the role and purpose of social networks in influencing social isolation and loneliness as paramount in beginning to increase our knowledge. As this dissertation research has indicated, personal networks can have both protective and maladaptive traits. Building off this work, my next project aims to address two central questions. First, for sexual minority aging individuals, what network member characteristics are associated with decreased social isolation and improved health? Second, what effect does identity congruence have on network composition?

In building on this dissertation, it will be necessary to identify methods of collecting and analyzing network connections that extend beyond direct person-to-person, and recognize the increasing role of social media networking websites (e.g., Facebook, Twitter, Instagram). Although the connections from these social media networking websites may not be as formalized or as recognizable as network alters, the information and comfort they provide may exceed what is perceived from traditional networks. The type of connections to individuals and large groups that these websites offer seems to be more important to individuals, which could replace person-to-person contact. The role that identity congruence may have in mediating these effects also remains unknown. For

example, do individuals who have not fully disclosed their sexual orientation in their physical/public life connect with other sexual minority individuals more easily in their electronic life? Do they consider these individuals to be part of their network?

In conducting this work, I will build from the foundation laid by this dissertation research. Recognizing the challenges associated with rural aging sexual minority data collection and the need to increase our knowledge of sexual minority aging, I will aim to recruit participants from across the rural-urban continuum. Data will be collected using a tablet or online format, as over the phone data collection was a burden for both respondent and researcher due to question repetition. Sexual identity congruence can be measured through one instrument (Nebraska Outness Scale) versus multiple competing instruments. New specific measures of social isolation and loneliness must be identified and employed. The collection of ego-centric social network data collection will be restructured to include an emphasis on collecting alter data for broad groupings of individuals (such as a Facebook "group"), as well as individual network members. Measures of demographic similarity and perceptual affinity will have to be revised and adjusted. Additional questions related to identity disclosure to each alter will need to be developed.

Although multiple challenges exist to the collection and analysis of this data, including accessing the population and identifying appropriate survey instruments, it is necessary. Research that seeks to engage the aging sexual minority communities, although difficult, is essential to improving the health and quality of life experienced by these populations.

7.4 Conclusion

Addressing the health and quality of life of rural aging gay and lesbian individuals is one part of the broader need to better understand LGBTQ aging. The increasing diversity of the aging population of the United States requires gerontologists to question models of aging that emphasize a predominantly white, middle-class, Judeo-Christian view of aging. Historically, these models guided the development of programs in the aging services system (Stone, Lin, Dannefer, & Kelley-Moore, 2017). Moving forward, there is a need to embrace the variety of aging experiences and recognize the increasing diversity in the aging population. To do so requires that we also recognize pervasive health inequalities that exist within aging and rural populations, including how these inequalities affect sexual minority individuals. Further, adapting to new models of aging requires us to recognize the diverse environments in which aging occurs and modifying service delivery to recognize the distinctive characteristics of these environments, emphasizing that not all environments may be productive for aging (Golant, 2015).

In this study, I examined the intersections of social networks, identity, health, and quality of life among twenty-five rural aging gay and lesbian participants. This study helped clarify critical multi-directional influences of quality of life, health, and identity congruence, revealing the vital role that identity congruence plays in health, quality of life, and supportive networks. Outcomes from the study show the necessity of engaging in research with rural aging LGBTQ populations. Findings from predominantly urban-based samples do not reflect the reality of rural aging LGBTQ individuals. With this knowledge, future research opportunities exist to address rural LGBTQ health

inequalities through community-driven network-based interventions. In doing so, we work toward becoming an equal society.

7.5 Statement of Funding

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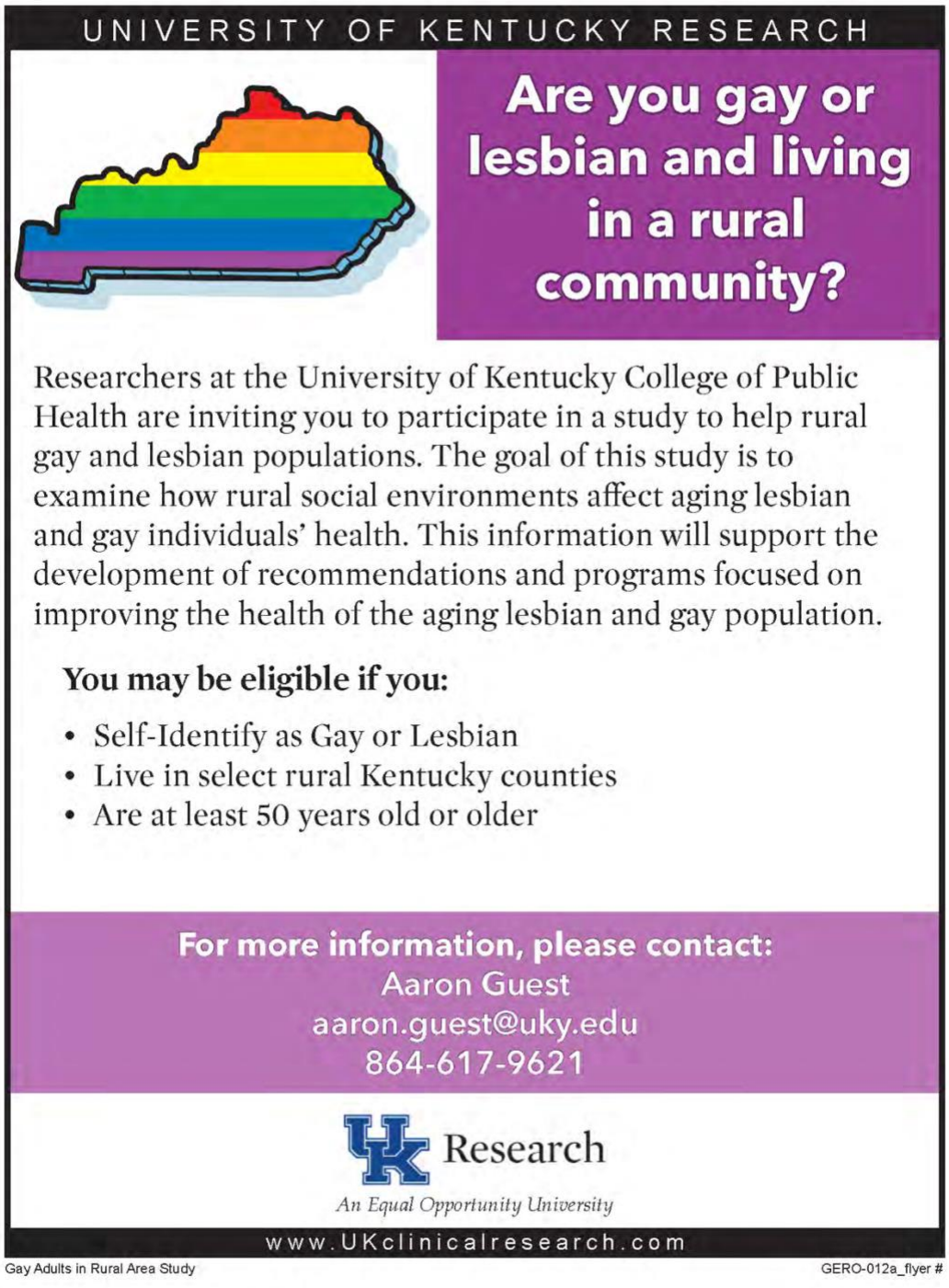
APPENDICES

Appendix A: Recruitment Flyer



Appendix B: Recruitment Card

Appendix C: Informed Consent Document

IRB Approval
8/10/2018
IRB # 45659
ID # 67659

Consent to Participate in a Research Study

KEY INFORMATION FOR THE RAINBOW AGING: RURAL GAY AND LESBIAN HEALTH PROJECT

You are being invited to take part in a research study about the health and quality of life of rural gay and lesbian individuals over the age of fifty.

WHAT IS THE PURPOSE, PROCEDURES, AND DURATION OF THIS STUDY?

By doing this study, we hope to learn more about the role social networks play in affecting the health status of rural aging and lesbian individuals

Your participation in this research will last about two hours. During this time period a researcher will meet with you to complete a series of three data collection tasks. First, you and the researcher will complete a health, social, and demographic questionnaire. Second, you and the researcher will develop a social network of individuals you rely on. Third, you and the researcher will complete a brief in-person interview.

WHAT ARE REASONS YOU MIGHT CHOOSE TO VOLUNTEER FOR THIS STUDY?

Your participation in this study will assist in increasing our understanding of the role social networks play in the health and quality of life of rural gay and lesbian individuals.

WHAT ARE REASONS YOU MIGHT CHOOSE NOT TO VOLUNTEER FOR THIS STUDY?

Due to the nature of the study you may feel uncomfortable answering some questions. Questions may bring back negative experiences, thoughts, and emotions.

For a complete description of risks, refer to the Detailed Consent.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any services, benefits, or rights you would normally have if you choose not to volunteer.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS OR CONCERNS?

The person in charge of this study is M. Aaron Guest of the University of Kentucky, Graduate Center of Gerontology. If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study his contact information is: aaron.guest@uky.edu or 864.617.9621.

If you have any questions, suggestions or concerns about your rights as a volunteer in this research, contact staff in the University of Kentucky (UK) Office of Research Integrity (ORI) between the business hours of 8am and 5pm EST, Monday-Friday at 859-257-9428 or toll free at 1-866-400-9428.

DETAILED CONSENT

ARE THERE REASONS WHY YOU WOULD NOT QUALIFY FOR THIS STUDY?

We appreciate all interest in the study. However, there are certain reasons that potential participants who meet all other recruitment criteria may be excluded. These include:

- If you identify as transgender or bisexual;
- If it is determined you do not live in one of the targeted twenty-one Kentucky counties;
- If you are a resident of a nursing home or other skilled medical facility;
- If you express symptoms or have a diagnosis of a neuro-cognitive-degenerative illness; OR
- If you do not wish to complete survey/interview-based research.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The research will be conducted at a location of your choosing. This location can be in the community, your home, or at the University of Kentucky. You will meet with the researcher one time during the study. This meeting will last about two hours. The total amount of time you will be asked to volunteer for this study is about two hours during the one interview,

WHAT WILL YOU BE ASKED TO DO?

Participation in this study will require meeting with a researcher at a location of your choosing. As part of this research you will be asked to complete three tasks with the researcher. The entire interview – all three steps, will be digitally audio recorded.

1. You will be asked to complete a questionnaire around the topics of health, community resources, quality of life, and demographics.
2. You will be asked to develop a social network of individuals you interact with and categorize your interactions with them.
3. You will be asked to complete a one-on-one interview to expand on your experiences.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

Participation in this research carry's minimal risks. We have made every attempt to minimalize the potential risks still present, including:

- Some questions may make you upset or feel uncomfortable.
- As with any research, there exist the possibility that confidentiality may be breached during the course of the study.
- In addition to risks described in this consent, you may experience a previously unknown risk.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?

You will not get any personal benefit from taking part in this study. However, information learned may assist in gathering additional data on this topic and inform future research.

WHAT WILL IT COST YOU TO PARTICIPATE?

There is no direct cost associated with participating in this study. You may face indirect cost including the cost of driving to the interview site, the cost of parking at the interview site, or eating during the drive or at the interview site. If the research takes place at the University of Kentucky, parking will be validated.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?

When we write about or share the results from the study, we will write about the combined information. We will keep your name and other identifying information private. Your home address will need to be collected for incentive payment.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. Your data will be coded with only the researchers having access to identifiable information. All paper records will be scanned and then destroyed. All project data will be stored in a password protected folder on a secure protected hard drive.

You should know that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to share your information with authorities if you report information about a child being abused or if you pose a danger to yourself or someone else. Officials from the University of Kentucky may look at or copy pertinent portions of records that may identify you.

We will make every effort to safeguard your data, but, the security of data obtained through commercial survey companies cannot be guaranteed. It is also possible the data collected for research purposes may be used for marketing or reporting purposes by the company, depending on the company's Terms of Service and Privacy policies.

CAN YOU CHOOSE TO WITHDRAW FROM THE STUDY EARLY?

You can choose to leave the study at any time. If you choose to leave the study early, data collected until that point will remain in the study database and may not be removed. You may request the destruction of the digital audio recording of your participation. Upon receipt of the request the files will be deleted from the study hard drive. The investigators conducting the study may need to remove you from the study. This may occur for a number of reasons. You may be removed from the study if

- you are unable to follow directions,
- the agency paying for the study or the faculty advisors of the study choose to stop the study early for a number of scientific reasons.

WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?

You will receive a $30 check for taking part in this study. The check will be mailed to you following your meeting with the researcher. There is no financial penalty for withdrawing from the study early.

WHAT IF NEW INFORMATION IS LEARNED DURING THE STUDY THAT MIGHT AFFECT YOUR DECISION TO PARTICIPATE?

You will be informed if the investigators learn new information that could change your mind about staying in the study. You may be asked to sign a new informed consent form if the information is provided to you after you have joined the study.

WHAT ELSE DO YOU NEED TO KNOW?

If you volunteer to take part in this study, you will be one of about thirty people to do so. If you do not want to take part in the study there are no other choices except not to take part.

This research is being conducted by M. Aaron Guest, a Ph.D. Candidate in Gerontology at the University of Kentucky as part of his dissertation research. He is being guided in this research by Beth Hunter, Ph.D. There may be other people on the research team assisting at different times during the study. This research has been funded through JustFundKY, the Appalachian Center at the University of Kentucky, and the University of Kentucky Donovan Scholarship in Gerontology.

FUTURE USE OF YOUR INFORMATION:

Identifiable information such as your name or date of birth may be removed from the data collected in this study. After removal of the identifiable information, the data may be used for future research or shared with other researchers without your additional informed consent. In addition to the main study, you are being asked to allow us to keep and use your information for future research that involves aging rural gay and lesbian individuals in Kentucky.

45659
ID # 67659

INFORMED CONSENT SIGNATURE PAGE

You are a participant. This consent includes the following:

- **Key Information Page**
- **Detailed Consent**

You will receive a copy of this consent form after it has been signed.

_____ _____

Signature of research subject **Date**

_____

Printed name of research subject

_____ _____

Printed name of person obtaining consent **Date**

_____

Signature of Principal Investigator or Co-Investigator

Appendix D:Telephone Script

Phone Script Template

Telephone Script
Rainbow Aging

Once Participant Has Picked Up the Phone and Confirmed Participation.

Once again, thank you for agreeing to participate in this work. Prior to starting our interview, I would like to provide a little more information about the study and to make sure everything we are proposing is okay with you.

At this time, I would like to turn on the recorder, is that okay with you? If after we discuss everything you decide not to participate we will destroy the recording immediately. If you agree to participate the recording will be maintained on a secure hard drive until such time it is no longer needed.

-Pause for Response-
IF NO -> End Interview

Thank you for your interest! I am going to provide a brief overview of our study. If at any time you have any questions please do not hesitate to stop me to ask. At the end of this I will ask for your consent to participate in this research.

Broadly, researchers at the University of Kentucky are inviting you to take part in in a phone interview about the health and quality of life of rural gay and lesbian individuals over the age of fifty. By doing this study, we hope to learn more about the role social networks play in affecting the health status of rural aging and lesbian individuals

Although you may not get personal benefit from taking part in this research study, your responses may help us understand more about the role networks play in identity formation and overall health. Some volunteers experience satisfaction from knowing they have contributed to research that may possibly benefit others in the future.

You will be paid $30 for taking part in this study.

The survey/questionnaire will take about 90 minutes to complete.

Although we have tried to minimize this, some questions may make you upset or feel uncomfortable and you may choose not to answer them. If some questions do upset you, we can tell you about some people who may be able to help you with these feelings.

Your response to the survey will be kept confidential to the extent allowed by law. When we write about the study you will not be identified.

Identifiable information such as your name, clinical record number, or date of birth may be removed from the information collected in this study. After removal, the information may be used for future research or shared with other researchers without your additional informed consent.

We hope to receive completed questionnaires from about 30 people, so your answers are important to us. Of course, you have a choice about whether or not to complete the survey/questionnaire, but if you do participate, you are free to skip any questions or discontinue at any time.

Phone Script Template

Please be aware, while we make every effort to safeguard your data once received from the online survey company, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the survey company's servers, or while en route to either them or us. It is also possible the raw data collected for research purposes will be used for marketing or reporting purposes by the survey/data gathering company after the research is concluded, depending on the company's Terms of Service and Privacy policies.

If you have questions about the study, please feel free to ask; my contact information is given below. If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Thank you in advance for your assistance with this important project. At this time do you have any questions regarding this work?

At this time, I would like to confirm you would like to continue with your participation in this process.

-Pause for Response-

IF YES -> Continue with Survey

IF NO -> Thank you for your time and interest in this work.

Appendix E: Participant Information Document

Participant Information Form

Participant Information Document

This document is confidential. The information will only be used as described in the Consent Document. Only the researcher will see this form. The document will be destroyed following the mailing of your participant incentive.

Name: _____

Address: _____

City: _____

Zip: _____

THANK YOU!

For Internal Use Only:

Date: _____

County: _____

Participant ID: _____

Incentive Mailed: _____

Version 1.0
Revision 10.12.18

Appendix F: Data Collection Tools

Guest Dissertation Survey
Rural Rainbow Aging

DATA COLLECTION TOOLS

Self-Reported Questionnaire

The questions below are divided into four sections. This survey collects data on your demographics, perceptions of community, your health, and your involvement in your community. Please answer the questions to the best of your ability. If you do not wish to answer a particular item you may leave that question blank. You will not be penalized for not answering a question.

SECTION 1: Demographics

1.1 How would you identity your gender today?
- Male
- Female
- Other_____

1.2. Which of the following best represents how you think of yourself?
- Gay
- Lesbian
- Something else: _____

1.3. What is your age? _____

1.4. Are you of Hispanic, Latino/a, or Spanish origin?
- Yes
- No

1.5. Which one or more of the following would you say best represents your race:
- White
- Black or African American
- Asian
- Pacific Islander
- Other: _____

1.6. Do you have a religious affiliation?
- Yes
- No

1.7. Are you….?

- Married
- Divorced
- Widowed
- Separated
- Never Married
- A member of an unmarried couple

1.8. Are you currently….

- Employed for wages: full time
- Employed for wages: part time
- Self-employed
- Unemployed
- A Homemaker
- A Student
- Retired
- Unable to work

1.9. What is the highest grade or year of school you completed?

- Never attended school or only attended kindergarten
- Grades 1 through 8 (Elementary)
- Grades 9 through 11 (Some High school)
- Grades 12 or GED (High School graduate)
- College 1 year to 3 years (Some college or technical school)
- College 4 years or more (College graduate)
- Graduate School

1.10. Do you have any children?

- Yes
  - 1.11. IF YES how many? _____
- No

1.12. Do you live alone?

- Yes
- No
  - 1.13. **IF NO, who do you live with?**
    - Partner
    - Grandchildren
    - Children
    - OTHER FAMILY
    - Other: ____

1.14. Is your annual household income from all sources—

- ☐ Less than $10,000
- ☐ $10,000 to less than $15,000
- ☐ $15,000 to less than $25,000
- ☐ $25,000 to less than $35,000
- ☐ $35,000 to less than $50,000
- ☐ $50,000 to less than $75,000
- ☐ $75,000 to less than $100,000
- ☐ $100,000 or more

SECTION 2: Health

2.1. In general, how would you rate your health today?

Very good
Good
Moderate
Bad
Very bad

2.2. Has a doctor, nurse, or other health professional ever told you that you had any of the following?

Angina or Coronary Heart Disease
Stroke
Asthma
Skin cancer
Lung cancer
Any other types of cancer
Chronic Obstructive Pulmonary Disease, C.O.P.D., emphysema or chronic bronchitis
Arthritis, Rheumatoid Arthritis, Gout, Lupus, Fibromyalgia
Depressive Disorder (Depression, Major Depression, Dysthymia, Minor Depression).
Kidney Disease
Diabetes
Tooth Decay or Gum Disease
HIV/AIDS
Mental illnesses, such as anxiety, schizophrenia, obsessive compulsive disorder, or bipolar disorder
Injuries, including broken bones
Substance abuse
High Blood Pressure
High Cholesterol
Vision Problems, such as cataracts and glaucoma
Osteoporosis
Hepatitis

2.3 During the **PAST MONTH, how much difficulty** did you have with the following?

	None	Mild	Moderate	Severe	Extreme or cannot do
Using the telephone					
Grocery shopping					
Preparing a hot meal					
Taking medications in the correct dosages and/or at the correct time					
Handling finances, such as paying your bills and keeping track of expenses					
Dressing (including putting on shoes and socks)					
Walking across a room					
Using the toilet, including getting up and down					
Eating meals, such as cutting up your food					
Bathing or showering					
Moving in and out of a bed or chair					

2.4	Yes	No	Unsure
Do you have any unmet medical needs?			
Are you afraid to disclose your sexual orientation to your medical provider?			
Have you ever postponed getting medical attention due to the lack of approving and/or affirming LGBTQ providers?			

2.5 Now we would like to ask you about services you may or may not need or been able to obtain. Thinking about the services listed below, please check all boxes that are appropriate.

		Needed & did not receive Because…			
	Needed & received	**Could not afford**	**Could not get to**	**Not available**	**Did not need**
Senior housing					
Transport					
Support Groups					
Legal services					
Dental services					
Vision Services					
In-home health services					
Caregiving					
Fitness and Exercise Assistance					
Medical Provider					
Medication					
Emergency Room					
Counseling/Therapy					
Food Assistance					

2.6 Please indicate the extent to which you agree or disagree with each of the following.

	Strongly disagree	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly agree**
I tend to bounce back quickly after hard times.						
It is hard for me to snap back when something bad happens.						
I usually come through difficult times with little trouble.						

2.7. Please indicate how satisfied you are at this time with each of the following. Please answer each item even if you do not currently participate in an activity or have a relationship. You can be satisfied or dissatisfied with not doing the activity or having the relationship.

	Delighted	Pleased	Mostly Satisfied	Mostly Dissatisfied	Unhappy	Terrible
Material comforts home, food, conveniences, financial security						
Health - being physically fit and vigorous . . .						
Relationships with parents, siblings & other relatives- communicating, visiting, helping . . .						
Having and rearing children						
Close relationships with spouse or significant other						
Close friends						
Helping and encouraging others, volunteering, giving advice						
Participating in organizations and public affairs						
Learning- attending school, improving understanding, getting additional knowledge. .						
Understanding yourself - knowing your assets and limitations - knowing what life is about.						
Work - job or in home						
Expressing yourself creatively						

	Delighted	Pleased	Mostly Satisfied	Mostly Dissatisfied	Unhappy	Terrible
Socializing - meeting other people, doing things, parties, etc.						
Reading, listening to music, or observing entertainment						
Participating in active recreation						
Independence, doing for yourself						

SECTION 3: Social and Community Support

How much do the following apply to you?

3.1		Never	Rarely	Sometimes	Usually	Always
	I feel left out.					
	I feel that people barely know me.					
	I feel isolated from others.					
	I feel that people are around me but not with me.					

What best describes your agreement with the following statements?

3.2.	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I am proud to be LGBTQ.						
Being LGBTQ is as natural as being heterosexual or non-transgender.						
I feel ashamed of myself for being LGBTQ.						
I feel that being LGBTQ is a personal shortcoming for me.						
I wish I were not LGBTQ.						
I believe that being LGBTQ is as fulfilling as being heterosexual or non-transgender.						
I feel comfortable being LGBTQ.						
I feel that being LGBTQ is embarrassing.						

3.3. Please indicate how often you believe you face discrimination in your everyday life.

Never	Less than once a year	A few times a year	A few times a month	At least once a week	Almost everyday

3.4. Please indicate which of your identities you believe is the reason you experienced discrimination **[CHECK ALL THAT APPLY]**

- Sexual orientation
- Gender
- Transgender identity
- Ancestry or national origin
- Race
- Age
- Gender expression
- Religion
- Physical difficulties
- Mental difficulties
- Physical appearance
- Financial status
- Not listed [please specify_____

SECTION 4: Identity

4.1 Think about the LGBTQ (lesbian, gay, bisexual, or transgender) community. Please indicate the extent to which you agree or disagree with each of the following.

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I help other people in the community.						
I get help from the community.						
I am active or socialize in the community.						
I feel part of the community.						
I belong to LGBTQ organizations?						
I would mentor younger LGBTQ persons.						

4.2. What percent of the people in this group do you think are aware of your sexual orientation (meaning they are aware of whether you consider yourself straight, gay, etc.)?

Members of your immediate family? (e.g., parents and siblings)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Members of your extended family (e.g., aunts, uncles, grandparents, cousins)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
People you socialize with (e.g. friends and acquaintances)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
People at your work/school (e.g., coworkers, supervisors, instructors, students).	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strangers (e.g., someone you have a casual conversation with in line at the store)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

4.3. How often do you avoid talking about topics related to or otherwise indicating your sexual orientation (e.g., not talking about your significant other, changing your mannerisms) when interacting with members of these groups? Options are presented on a scale. You can select anywhere on the scale.

	Never					Half of the Time					Always
Members of your immediate family? (e.g., parents and siblings)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Members of your extended family (e.g., aunts, uncles, grandparents, cousins)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
People you socialize with (e.g. friends and acquaintances)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
People at your work/school (e.g., coworkers, supervisors, instructors, students).	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Strangers (e.g., someone you have a casual conversation with in line at the store)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

4.4. Have you lived in the same city/town all your life?
- Yes
- No

4.5. What best describes your birth county:
- This county
- A rural Kentucky county
- A non-rural Kentucky county
- Rural county outside of Kentucky
- Non-Rural County outside of Kentucky
- Other country

4.6. Do you consider yourself to be rural?
- Yes
- No

4.7. Community Identity

	Completely Disagree	Somewhat Disagree	Disagree	Neither Disagree or Agree	Agree	Somewhat Agree	Completely Agree
I want to live in my community for a long-time.							
Lots of things in my community remind me of my own past.							
I cannot image moving somewhere else because I would give up too much of myself.							
I know most of the people who live around me.							
Most of the people in my community know me.							
I feel a sense of connection with other people in my community.							

4.8. Rural Identity

	Very untrue of me	Untrue of me	Somewhat untrue of me	Neutral	Somewhat true of me	True of me	Very true of me
How much do you see yourself belonging to a rural community							
How much is being from a rural community a part of who you are?							
How much do you identify with people who live in rural communities							
To what extent do you feel your general attitudes and opinions are similar to people who live in rural communities?							
To what extend do you consider yourself a 'city' person?							

Network Questionnaire

INTRODUCTION

Thank you so much for everything we have discussed so far. Now, I would like to focus a little more about the people you interact with. Specifically, I look forward to learning more about the people you turn to for support and information. Through this process we will develop something called a social network, a listing of your personal connections.

We will be using this tablet [SHOWS TABLET] to keep track of the information. This will create a visualization as we move forward so you can see what your network looks like. I am happy to type as we go throughout this process.

For each of these questions, I would like for you to think back within the last year. So, thinking back to (ENTER MONTH) 2017.

We will run through some common scenarios at first. Then, I will ask for some details about the individual. As we talk about these individuals, if you could state their FIRST NAME and LAST INITIAL that will help in both keeping them straight (pause for laughter) and ensuring their confidentiality. As a reminder, only fake names will be used in any final work.

Ready? Do you have any questions? Please remember to think back one year and provide a first name and last initial.

Social Network Survey

I. Network Alters

Please remember to think back one year and provide first name and last initial.

1. Who do you discuss important matters with?
    a. Is there anyone else you can think of that you have not named?

2. Who can you count on if you have a serious problem?
    a. Is there anyone else you can think of that you have not named?

3. Who do you spend your free time with?
    a. Is there anyone else you can think of that you have not named?

4. Who would you contact if you needed some assistance around the home, or to borrow something like a cup of sugar or a hammer?
    a. Is there anyone else you can think of that you have not named?

5. Is there anyone else you can think of that you have not named through the above questions?

II. Social Network Questions

Now, I would like to learn a little bit more about how you interact with the individuals mentioned above. Of these individuals <SHOW LIST>:

1. Whom, if anyone, do you talk to about health care or seek out health advice from?

2. Whom, if anyone, do you talk with about your experience aging?

3. Whom, if anyone, do you talk with about politics?

4. Whom, if anyone, do you talk with about LGBTQ issues?

5. Whom, if anyone, do you talk with about local community issues?

II. Name Interpreters

Now, I would like to learn a little more about the individuals we have discussed above. Each of these questions will consist of a statement and a question about an individual we discussed above. For each question, you only have to answer to the best of your ability. Starting with X…

1. How do you know the individuals below?
    a. Family
    b. Friend
    c. Neighbor
    d. Coworker
    e. Schoolmate
    f. Acquaintance
    g. Other: _____

2. To the best of your knowledge, how do each of the following individuals identify?
    a. Gay
    b. Lesbian
    c. Bisexual
    d. Transgender
    e. Queer
    f. Straight
    g. Other: _____
    h. Unsure

3. To the best of your knowledge, what are the following individual's gender identity?
    a. Male
    b. Female
    c. Transgender
    d. Unsure/Other: _____

4. On a scale of 1 to 7, with 1 being much younger, 4 being the same age, and 7 being much older, how much younger or older you compared to <name>.
    a. 1=I am Much Younger; 4=Same Age; 7=Much Older

5. On a scale of 1 to 7, with 1 being not at all similar and 7 being extremely similar, how similar are the occupations you and <name> have.
    a. 1=Not at All; 7= Extremely

6. Do you and the following individuals have the same level of education? Please place the following individuals in the appropriate bin as it relates to your education level.
    a. Less Education
    b. Same Education
    c. More Education

The following questions are going to ask you about your interactions and involvement with individuals you have previously mentioned. In each question, you are going to be asked to rank how likely it is you would do something on a scale of **1 = not likely** to **7 = very likely** . You can rank anywhere on the scale from 1 to 7.

7. How likely are you to discuss personal issues with <name>?
    a. 1=Not Likely; 7=Very Likely

8. How likely would you be to spend some free time socializing with <name>?
    a. 1=Not Likely; 7=Very Likely

9. How likely would you be to perform a LARGE Favor for <name>?
    a. 1=Not Likely; 7=Very Likely

10. In your opinion, how likely would <name> be to perform a LARGE favor for you?
    a. 1=Not Likely; 7=Very Likely

The following questions are going to ask you about you about similarities you may have with individuals you have previously mentioned. In each question, the center circle represents being very similar to the individual (7) whereas the outer ring represents being not at all similar. You can place individuals in any ring. There may be multiple individuals in some rings and none in others.

11. On a scale of 1 to 7 with 1 being not at all close and 7 being extremely close, please rate your closeness with <name>.
    a. 1=Not at all close; 7=Extremely close

12. Consider your outlook on life, how similar are you and <name>?
    a. 1=Not at All Similar; 7=Very Similar

13. Considering your likes and dislikes, how similar are you and <name>?
    a. 1=Not at All Similar; 7=Very Similar

14. Considering your values and experience, how much would you say your values and experience overlap with <name>?
    a. 1=Not A Lot of Overlap; 7=A Lot of Overlap

15. To the best of your knowledge where do the following individuals live in relation to you:
    a. In the same county
    b. In an adjoining county
    c. In a non-adjoining county
    d. In a different state
    e. Other

III. Interactions

I would like you to now refer to the list of names you have given me. Can you tell me which of the people on that list talk to one another when you are not around? For this question, we will draw lines between those individuals that know one another. Individuals may have more than one line attached to them, while other individuals may have none.

IV. Other

1. Are there any other interactions that you feel we should have asked about but did not?

Interview Open Ended Questions

Thank you for discussing everything so far. We are approaching the last section of the interview and I was hoping we could now delve into some more specific examples of things occurring within your community. You may recall in the SRQ we asked some questions about how you interact with your community. Now, I'd like to learn a little bit more about how you view your community.

As you think about aging, what strengths and weaknesses exist in your community?
How would you say services are in your community? How do you access them? **Probes:** What services?
IF NOT DISCUSSED: What about health services in your community? How do you access them? **Probes:** What services?
How would you describe the climate of your community around LGBTQ issues? **Follow-Up:** What about an aging/older adult?
How would you describe being (*gay or lesbian*) throughout your life? **Probe:** Greatest challenge. **Probes:** Economic, Social, Health, identity. **Probes:** Specific to this community?
[Follow-Up] How do you believe others have treated you based on your identity as (*gay or lesbian*)? **Probes:** Can you provide an example? **Probes:** Do you believe this could have been due to other parts of your identity?
Does your identity impact you seeking health services or health care? (*lesbian woman or gay man*)? **Probe:** How so?
Does your identity impact you seeking other community services? (*lesbian woman or gay man*)? **Probe:** How so?
Where do you feel 'safe' in your community? **Probe:** Why there? What about the area? **Probe:** What could be done to improve your feeling of safety in your community?
Is there anything else you would like to add?

ENSO SURVEY

Finally, I'd like to ask you four questions about the software program we've been using today. The people who made it would like your input on how to make it better.

For the first three statements, please answer on a scale of 1 to 5, with 1 meaning you strongly *disagree* with the statement, and 5 meaning you strongly *agree* with the statement.

1. It was easy to use this program.
2. I was able to use this program to quickly answer questions about the people I know.
3. I enjoyed using this program

Is there anything else you would like the people who made the software know that could help them make it better? Was there anything you really liked? Anything that you really *did not* like?

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CURRICULUM VITAE

M. AARON GUEST

Education

University of South Carolina, Columbia, South Carolina

2015 **Master of Public Health, Health Promotion, Education, and Behavior**
Norman J. Arnold School of Public Health
Practicum: Preparing for the Gray Tsunami: Working with the Office for the Study of Aging on Dual Eligible Populations (Mindi Spencer, Ph.D., Advisor)

2015 **Master of Social Work, Organizations and Communities**
College of Social Work
Field Placement: Building Health Environments Project – Community Empowerment Center (Stacy Smallwood, MPH, Ph.D., Supervisor and Darcy Freedman, Ph.D. & Ron Pitner, Ph.D., Investigators)
Field Placement: Office for the Study of Aging, Dementia Programs (Brenda L. Hyleman, MSW, Supervisor)

2015 **Certificate of Graduate Study in Health Communication**
Norman J. Arnold School of Public Health & College of Information and Communication
Practicum: Dissemination of an Electronic Manual for Farmer Market Development (Daniela Friedman, Ph.D. & Darcy Freedman,Ph.D., Co-Advisors)

2015 **Certificate of Graduate Study in Gerontology**
Graduate School

2012 **Bachelor of Arts in Anthropology, Cum Laude, With Distinction in Anthropology, Minor in Women's & Gender Studies**
College of Arts and Sciences
*Senior Thesis: Gay Male Power Structures: Negotiating Gay Male Leadership Within Queer Communities (*Drucilla Barker, Ph.D., Advisor*)*

Professional Appointments

Fellowship

6/2018-8/2018 **Network Science Fellow**
Visible Network Labs, Denver, CO
Worked with the PARTNER Dataset, the largest inter-organizational dataset, to develop data management techniques and identify opportunities for future research.

Instructor Positions

1/2018-8/2019 **Adjunct Instructor of Gerontology**
School of Health & Rehabilitation Sciences, Indiana University-Purdue University Indianapolis

5/2017-5/2019 **Instructor of Record Teaching Assistant**
Graduate Center for Gerontology, University of Kentucky

8/2015-5/2017 **Teaching Assistant**
Graduate Center for Gerontology, University of Kentucky

Graduate Research Assistantships, Research Practicum, and Graduate Assistantships

2/2016-8/2019 **Coordinator**
Gerontological Literacy Network, University of Kentucky Supervisor: Graham Rowles, PhD.

1/2016-6/2017 **Research Assistant**
Cancer Survivorship and Return to Work Research Project Supervisor: Beth Hunter, Ph.D.

8/2014-5/2015 **Research Assistant for Dual-Eligible Populations & Dementia Programs**
Office for the Study of Aging, University of South Carolina. Supervisor: Brenda Hyleman, LISW-CP/AP

7/2014-10/2014 **Changing Carolina Peer Leader Advisor**
Campus Wellness, Student Health Services, University of South Carolina. Supervisor: Michael Crowley, MPH, CHES.

1/2014-8/2014 **Research Assistant**
Farmer Market Manual Dissemination Project. Supervisors: Daniela Friedman, Ph.D. & Darcy Freedman, Ph.D., MPH

8/2013-8/2014 **Disease Prevention Graduate Assistant**
Campus Wellness, Student Health Services, University of South Carolina. Supervisor: Michael Crowley, MPH, CHES.

1/2013-5/2013 **Survey Coordinator (Post-Intervention)**
Healthy Environments Study. Supervisors: Darcy Freedman, Ph.D., MPH & Ron Pitner, Ph.D., MSW.

8/2012-5/2013 **Dean's Research Graduate Assistant**
Right Choice, Fresh Start Farmers Market. Supervisor: Darcy Freedman, PhD., MPH.

Consulting Roles

5/2019-8/2019 **LiKEN (Livelihood Knowledge Exchange Network) in Lexington, KY**
Role: Research Director, LiKEN & Research Director, Central Appalachian Folk and Traditional Arts (CAFTA) Survey.

12/2016-7/2017 **Project: Strategic Planning for Advanced Care Planning in South Carolina**
Role: Project Design, Researcher, & Evaluator
Organization: SC Coalition for The Care of the Seriously Ill with Brenda Hyleman, LISW-CP/AP and Macie Smith, Ed.D

10/2016-2/2017 **Project: Evaluating the Job Market for Gerontologist**
Role: Researcher
Organization: Tina M. Kruger, Ph.D., for AARP

Publications

Peer Reviewed Publications

1. Kruger, T.M., Clark-Shirtley, L.J., **Guest, M.A.** (2019). Careers in Aging: How Job Seekers Search for and How Employers Advertise Positions in Aging Related Markets. *Educational Gerontology 45*(7), 483-494. Doi:10.1080/03601277.2019.1658853

2. **Guest, M.A.,** Miller, M., Smith, M., & Hyleman, B. (2018). Office for The Study of Aging at The University Of South Carolina: Promoting Healthy Aging Through Program Development, Evaluation, Education/Training and Research For South Carolina's Older Adults. *Journal of Applied Gerontology*,*37*(3),332-348. Doi: 10.1177/0733464816643878

3. Brandt H.M., Freedman D.A., Friedman D.B., Choi S.K., Seel J.S., **Guest M.A.,** & Khang L. (2016) Planting healthy roots: using documentary film to evaluate and disseminate community-based participatory research. *Family & Community Health, 39*(4), 242-50. Doi: 10.1097/FCH.0000000000000120. PMID: 2753629

4. **Guest, M.A**., Freedman, D.A., Friedman, D.B., Alia, K., & Brandt, H.M.(2015) Building Capacity for the Implementation of a Farmers Market: Dissemination of an Electronic Manual. *Clinical & Translational Science, 8*(5), 484-489. Doi: 10.1111/cts.12318

5. Freedman, D.A., Mattison-Faye, A. Alia, K. **Guest, M.A.,** & Herbert, J.R. (2014). Comparing farmer's market revenue trends before and after the implementation of a food assistance monetary incentive intervention. *Preventing Chronic Disease,* 11. Doi: 10.5888/pcd11/130347

Book Reviews

1. **Guest, M.A.** (2019) Review of *Community Resources for Older Adults: Programs and Services in an Era of Change (5th Edition),* by Robbyn R. Waker and Karen A. Roberto. SAGE, Thousand Oaks, California, 2019,593 pp. in *The Gerontologist,* 59*(2), 398-399. Doi:10.1093/geront/gnz017*
2. **Guest, M.A.** (2019). Review of *The Rope Swing,* by Jonathan Corcoran. Vandalia Press, West Virginia Press: Morgantown, VA, 2016, 144pp. in the *Journal of Appalachian Studies,* 25*(1), 117-119.* DOI: 10.5406/jappastud.25.1.0117

Awards & Honors

2019 National LGBTQ Health Conference Scholarship ($375)
2019 Graduate Center for Gerontology Summer Training Scholarship ($687.50)
2019 Alzheimer's Association National & Kentucky Chapter Scholarship ($750)
2019 25th Annual Lexington MLK Unity Breakfast in Lexington, UK CPH Representative
2018 Sigma Xi (The Scientific Research Honor Society), Associate Member
2018 Honorable Mention (2nd Place) Retirement Research Foundation/Laurence G. Branch Doctoral Student Research Award ($500)
2018 University of South Carolina College of Social Work Alumni Spotlight
2018 Graduate Center for Gerontology PhD Funding ($16,000 + Tuition & Fees)
2018 University of Kentucky Donovan Scholarship in Gerontology ($1,000)
2018 University of Kentucky Appalachian Center James S. Brown Award ($1,000)
2018 University of Kentucky College of Public Health KPHA Travel Award ($400)
2018 Southern Gerontological Association Student Scholarship Award ($500)
2018 AGEC Appreciation of Service Award
2018 Appalachian Studies Association Howard Dorgan Scholarship ($100)
2018 University of Kentucky Appalachian Center Travel Scholarship ($250)
2017 Graduate Center for Gerontology PhD Funding ($18,000 + Tuition & Fees)
2017 Who Is In Public Health, American Public Health Association
2017 Rural and Environment Research Award Finalist
2017 University of Kentucky Donovan Scholarship in Gerontology ($1,000)

2017 Honorable Mention (2nd Place), Graduate Presentation at the 28th Southeastern Mentoring Conference in Gerontology
2017 Southeastern Mentoring Conference in Gerontology Travel Award ($100)
2017 Omicron Delta Kappa, National Leadership Honor Society
2016 Thomas P. Rogers Endowment Recipient ($16,000+ Tuition & Fees)
2016 Finalist, Laurence G. Branch Doctoral Student Research Award
2016 Membership Spotlight, Gerontological Society of America
2016 University of Kentucky Donovan Scholarship in Gerontology ($3,000)
2016 Kentucky Academy of Science
2015 GSA Behavioral and Social Science Travel Scholarship ($200)
2015 American Public Health Association Student Assembly Chair Citation
2015 Finalist Retirement Research Foundation Master's Student Research Award
2015 Graduate Center for Gerontology PhD Funding ($16,000 + Tuition and Funding)
2014 Certificate of Appreciation of Service to the APHA-SA
2014 Linda M. Summer Social Work Pioneer Fellowship ($500)
2014 Certificate of Appreciation of Service to the NASW-SC
2014 Sigma Phi Omega National Gerontology Honor Society
2014 South Carolina Public Health Association Scholarship ($500)
2014 NASW-SC Chris Parker Outstanding MSW Student Award ($100)
2013 Arnold School of Public Health Dean's Travel Grant ($800)
2013 Arnold School of Public Health Colonial Life Fellowship ($6,000)
2013 APHA-SA Annual Meeting Scholarship ($500)
2013 Phi Alpha Honor Society Xi Tau Chapter (National Social Work Honor Society)
2012 Dean's Graduate Research Assistantship Recipient, College of Social Work (Inaugural Recipient) ($20,000 + In State Tuition Waiver).
2012 Outstanding Anthropology Student, University of South Carolina
2010 Magellan Research Scholarship, Office of Undergraduate Research, USC ($3,000)
2009 Public Anthropology Award for Excellence in Writing on Public Issues with the Community Action Website by the Center for a Public Anthropology

University of Kentucky Graduate School Travel Funding ($400) (Fall 2015, Fall 2016)
University of Kentucky College of Public Health Travel Funding ($400) (Fall 2015, Spring 2016, Fall 2016, Spring 2017)
University of Kentucky College of Public Health Travel Funding ($800) (Fall 2017, Fall 2018)
University of South Carolina College of Arts and Sciences Dean's List (2009-2012)