Midlife and Older Gay Men and Their Use of Physical and Mental Health Services: Exploring the Effects of Health Enablers, Health Need, Psychosocial Stress and Individual Health Coping

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

By

Shawn David King, M.S.W.

Graduate Program in Social Work

The Ohio State University

2009

Dissertation Committee:

Virginia E. Richardson, MSW, Ph.D., Advisor
Holly Dabelko-Schoeny, MSW, Ph.D.
Eugene Folden, Ph.D.
Abstract

Older gay men and lesbians, out of fear of discrimination, are five times less likely to access health care and social services. There are a few studies that have explored usage rates and factors that influenced non use of these services. This investigator examined the physical and mental health care service use for gay men 45 years of age and older. A cross-sectional study design employed the use of a web based survey. A sample of 260 participants from across the United States was collected within a 3-month collection timeframe. Participants for this study were obtained using gay choruses and an older gay men’s social group called the Prime Timers.

A conceptual framework developed for this study drew upon the combined contribution from the Andersen-Newman’s Behavioral Model of Health Service Use (1973), and the Minority Stress Conceptual Framework proposed by Meyer (Meyer, 1995). The goals of this study was to understand whether enablers defined by Anderson and Newman (1974) and psychosocial stress and individual health coping factors identified by Meyer (1995) were influential on the use of physical and mental health service use. Regression analysis was used to analyze the relationships based on correlational interactions between enabling, psychosocial stressors, and individual health coping variables on service use. Additionally, researchers have found that 51% to 82% of lesbians and gay men do not disclose their sexual orientation to health and social
service providers. Independent sample t-test was used to identify the significance of sexual identity disclosure on use of both physical and mental health service use.

The results of this study found that for mental health service use, community support and resiliency were significant predictors of service use. Physical health visits were found to be significantly influenced by support from friends, internalized homophobia and mental health distress. Discrimination was a significant factor in use of physical health visits, and it was found to decrease physical health service use. Physical health status and mental health distress were significant in seeking both physical and mental health services.

The importance of understanding the connection between physical health status and mental health distress was found increasing the need for interventions that incorporate both in the scope of service. More importantly, the effects of discrimination for midlife and older gay men is further understood and discussed with implications on physical health visits. The outcomes of this study provide a starting point to understand factors that affect how midlife and older gay men on the use of health services. The promotion of more effective policies and programs as well as, interventions within a community based support model would increase the health and well-being of this population. The study highlights the importance of social workers affirming a gay identity to increase one’s self confidence in seeking health services through direct intervention and policy changes.
Dedication

Dedicated to my partner John and my Mom, Lynndell King
Acknowledgment

I would like to thank my chair, Virginia Richardson, for all her tireless efforts and devotion, expertise, advice and encouragement in helping me to achieve the goal of finishing this dissertation. We will always have a special connection.

I am very grateful to the special mentorship I have received from Holly Dabelko-Schoeny before and throughout the years I have spent working towards completing my Ph.D. I would not have been successful without her consistent encouragement and support.

I would like to thank Eugene Folden for his encouragement throughout this journey. He has been instrumental to me personally with his positive encouragement and attention to important connections in my work.

I would like to thank my mom for all her encouragement and love, and I am especially grateful for the appreciation she has instilled in me for seeking knowledge.

I am forever grateful to my partner, John, for his selflessness, devotion, belief in my abilities, understanding, love and encouragement before and during this long period of study and research. There is no way that I could have accomplished this goal without you.
I would like to thank the following researchers for giving me permission to use their developed measurement scales in my research study: Anne Johanne Søgaard and colleagues for the use of the CONOR Mental Health Index (CONOR-MHI); Ilan Meyer for the use of his Discrimination scale; Liz Pinel for the use of her Stigma Consciousness questionnaire; James Lubben for the use of the Lubben Social Network Scale; Gail Wagnild and Heather Young for the use of their Resiliency scale; Simon Rosser and Michael Ross for the use of their most recently revised Internalized Homophobia Scale, and Kenneth Wallston, Barbara Wallston, and Robert DeVellis for the use of their Multidimensional Health Locus of Control Scales.

Additionally, I would like to show my appreciation to the National Association of Social Workers for their recognition of my research having been chosen to receive the Jane B. Aaron Dissertation Fellowship which provides for partial monetary support and recognition for this dissertation research. Additionally, I would like to thank the Society for the Psychological Study of Social Issues along with the Ohio State College of Social Work for their matching grant-in-aid which supported the completion of this study. Additionally, I would like to thank the Ohio State Alumni Association for being chosen to receive an Alumni Grant for Graduate Research and Scholarship. The monetary support and recognition from these organizations made it possible to complete this research study.
February 19, 1959…………………………. Born – Wichita, Kansas.

1984……………………………………..B.A., University of Texas at Arlington

1991……………………………………..M.A. Management, Friends University

2005……………………………………..M.S.W., The Ohio State University


January, 2009…………………………..Guest Lecturer Masters Class. The College of Social work, The Ohio State University.

October, 2006………………………..Guest lecturer Masters Class. The College of Social Work, The Ohio State University.

June, 2006-August, 2006………………….Research Interviewer, The Ohio State University, College of Social Work.

April, 2006…………………………….Guest Speaker at Social Work Awards Banquet. The College of Social Work, The Ohio State University.

October, 2005…………………………Guest Lecturer for MSW program. The College of Social Work, The Ohio State University.

October, 2005………………………………Field Researcher, University of Illinois, Chicago Illinois.

September, 2005……………………………Field Orientation Speaker for MSW program. College of Social Work, The Ohio State University.

PUBLICATION

Research Publication


Fields of Study

Major Field: Social Work
Table of Contents

Abstract ............................................................................................................................... ii
Dedication .......................................................................................................................... iv
Acknowledgment .............................................................................................................. v
Vita.................................................................................................................................... vii
Table of Contents ............................................................................................................... ix
List of Tables ................................................................................................................... xiv
List of Figures .................................................................................................................. xvi
Chapter 1: Introduction .................................................................................................... 1
   1.1 Problem Statement ............................................................................................... 1
   1.2 The Purpose and Significance of this Study and Conceptual Framework .......... 4
   1.3 Research Question ............................................................................................. 6
   1.4 Hypotheses ......................................................................................................... 6
   1.5 Definition of Terms ............................................................................................ 7
Chapter 2: Literature Review .......................................................................................... 10
   2.1 Introduction ......................................................................................................... 10
   2.2 General Characteristics of Midlife and Older Men ........................................... 10
   2.3 General Characteristics of the Study Population ............................................... 13
   2.4 Birth, Generation, and Historical Cohort Differences ....................................... 14
2.5 Midlife and Older Gay Men’s Perceptions of Age ........................................... 17
2.6 Gay Identity Development .............................................................................. 19
2.7 Social Support Networks ............................................................................... 22
2.8 Resiliency Skills and Internal Health Locus of Control ............................... 25
2.9 Stigma, Discrimination, and Homophobia .................................................... 28
2.10 Discrimination and Homophobia in Mainstream Agencies ......................... 33
2.11 Education, Financial and Insurance Barriers .............................................. 34
2.12 Structural Barriers to Health Care Service Use ......................................... 35
2.13 Direct Effects of Psychosocial Stress for Older Gay Men ............................ 36
2.14 Disclosure of Sexual Identity to Health Care Service Providers .................. 37
2.15 Use of Health Care Services ...................................................................... 41
2.16 Theoretical Framework: Andersen-Newman’s Behavioral Model of Health Service Use and Minority Stress Conceptual Model ........................................... 46
2.16.1 Andersen-Newman’s Behavioral Model of Health Service Use .............. 47
    2.16.1.2 Mutable Variables within the Aday and Andersen Access Framework .................................................. 52
2.16.2 Minority Stress Conceptual Model ......................................................... 54
Chapter 3: Data and Methods ............................................................................. 58
3.1 Planned Analysis ............................................................................................ 58
3.2 Significance and Justification of the Research Project ..................................... 58
3.3 Study Design ................................................................................................ 59
3.4 Sampling Strategy ....................................................................................... 60
3.5 Sample Size ............................................................................................... 63
3.6 Procedures .................................................................................................................................... 66
3.7 Data Collection .......................................................................................................................... 67
3.8 Instrumentation .......................................................................................................................... 68
3.9 Selection of Variables - Dependent and Independent Variables ........................................... 68
   3.9.1 Independent Variable – Community Resources and Support ............................................ 70
   3.9.2 Independent Variable - Social Networks ............................................................................. 71
   3.9.3 Independent Variable - Health Insurance ............................................................................ 73
   3.9.4 Independent Variable - Income ............................................................................................ 73
   3.9.5 Independent Variable – Education ....................................................................................... 73
   3.9.6 Independent Variable Internalized Homophobia Scale (RHS) ........................................ 73
   3.9.7 Independent Variable - Stigma Consciousness Scale .......................................................... 74
   3.9.8 Independent Variable - Discrimination Scale ...................................................................... 75
   3.9.9 Independent Variable - Resiliency Scale ............................................................................ 75
   3.9.10 Independent Variable - Multidimensional Health Locus of Control Scale (MHLC) .......... 76
   3.9.11 Dependent Variable - Physical and Mental Health Visits ............................................... 78
   3.9.12 Dependent Variable - Self Assessment of Physical Health ............................................. 78
   3.9.13 Dependent Variable - Self Assessment of Mental Health ............................................. 79
3.10 Data Analysis ............................................................................................................................ 80
   3.10.1 Multiple Logistic Regression to Determine Predictors of Mental Health Visits ............... 80
   3.10.2 Use of Multiple (ordinary least squares) Linear Regression to Determine Predictors of Physical Health Visits ................................................................. 80
3.10.3 Use of Independent Sample t-tests to test for significance of Disclosure to Health Care Service Provider on both Physical and Mental Health Visits

3.10.4 Decision to Reduce Number of Items on the Stigma Consciousness Scale

3.10.5 Comparison of Group to Non-Group Respondents for Differences

3.11 Summary

Chapter 4: Results

4.1 Pretesting

4.2 Descriptive Results

4.2.1 Participant Characteristics

4.3 Bivariate Correlations

4.4 Use of Logistic Regression to Determine Predictors of Mental Health Visits

4.5 Multiple Linear Regression – Physical Health Visits

4.6 Summary

Chapter 5: Summary of Findings

5.1 Discussion and Interpretation of research questions

5.1.1 Interpretation of Research Question One

5.1.2 Interpretation of research question Two

5.1.3 Interpretation of research question Three
5.1.4 Interpretation of research question Four ........................................... 119

5.1.5 Interpretation of research question Five ............................................. 123

5.2 Implications for the Conceptual Framework Used ................................ 125

5.3 Limitations and Strengths of the Study .................................................. 126

5.3.1 Cause and Effect Limitations ............................................................. 126

5.3.2 Threats to External Validity ............................................................... 127

5.3.2.1 Sampling Bias and Sample Size .................................................... 127

5.3.2.2 Use of Internet ................................................................. 128

5.3.2.3 Limitations for Scales ..................................................... 130

5.3.2.4 Challenges as an Emic Researcher ........................................ 130

5.4 Future Research ..................................................................................... 130

References ....................................................................................................... 132

Appendix ........................................................................................................... 149

Appendix A: IRB Approval ............................................................................ 149

Appendix B: Cover Letter to Participant Organizations ............................... 150

Appendix C: Participation Confirmation Letter .......................................... 152

Appendix D: Gay Men’s Health Survey Questionnaire .................................. 153
List of Tables

Table 1: Scale Variables Location of Distribution for Midlife and Older Gay Men….81
Table 2: Independent t-test for Group/Non-Group Members and Age……………….84
Table 3: Independent t-test for Group Members/Non-Group Members and Stigma…..85
Table 4: Independent t-test for Group/Non-Group Members and Resiliency………….86
Table 5: Pilot Study Instrument Reliability Measures……………………………….88
Table 6: Participant Demographic Descriptors by Age Cohort……………………..90
Table 7: Participant Socioeconomic Descriptors by Age Cohort…………………….93
Table 8: Type and Number of Chronic Conditions by Age Cohort………………….95
Table 9: Physical Health Visits Past Year…………………………………………….98
Table 10: Mental Health Visits Past Year………………………………………………99
Table 11: Midlife and Older Group Differences Statistics…………………………102
Table 12: Independent t-test Disclosure to HCP by Physical Health Visits…………103
Table 13: Independent Sample t-test Disclosure to MHP by Mental Health Visits….104
Table 14: Summary of Logistic Regression Analysis for Variables Predicting Mental
          Health Visits……………………………………………………………………106
Table 15: Summary of Multiple Linear Regression Analysis for Variables Predicting
          Physical Health Visits………………………………………………………….108
List of Figures

Figure 1: Andersen and Newman Behavioral Model of Health Service Use ......................48
Figure 2: Meyer Minority Stress Process among Lesbian, Gay, & Bisexual Populations.. 54
Figure 3: Conceptual Framework: Model of Health Care and Social Service Use for ...........

Midlife and Older Gay Men.................................................................69
Chapter 1: Introduction

1.1 Problem Statement

Hooyman and Kiyak (2005) emphasize the importance of health promotion and disease prevention as vital to avoiding impairment and disability prematurely in older age. Health promotion focuses on postponing chronic conditions until advanced aging thereby delaying disability and loss of functioning such as the inability to continue activities of daily living (ADL). Disease prevention includes “secondary prevention” aimed at screening and testing for early detection of disease and “tertiary prevention” to manage chronic disease once detected (Hooyman & Kiyak, 2005, p. 143). Health care behaviors which center on prevention become important to not only the individual but the society in which one lives in order to reduce health care cost for treating chronic diseases. Functional health, independence in ADL’s, satisfaction with one’s social circumstances, and feeling competent combine to determine one’s quality of life (Hooyman & Kiyak, 2005). The health status of older adults is determined by physical conditions, functional ability levels and the various social and psychological domains within one’s environment. Therefore, utilization of health services and effectively communicating one’s health with health care service providers extends one’s quality of life and further ensures health and well-being for all older adults.
Maylahn, Alongi, Alongi, Moore, and Anderson (2005) emphasize the lack of importance placed on access and utilization of health care services for prevention and/or delay of adverse health consequences, including chronic conditions. These scholars identified four domains comprised of healthy aging indicators which include access to care and connectedness within the social environment. Hooyman and Kiyak (2005) note that overall, older adults seek physical, mental and dental services at slightly lower rates than what would be expected for the level of illness, and they emphasize that low usage does not equate to having good health or health care needs met or even practicing good health.

However, older adults have more chronic health care conditions and usually only seek health services for acute problems (Hooyman & Kiyak, 2005). In their annual publication on the State of Aging in America, the Merck Institute of Aging and Health (2002) reported on the yearly frequency of use of physician services by age. What they noted is that 25-44 year old adults on average visit a physician 1.3 times per year. Those who are 45 to 64 visit a physician 7.3 times a year. Those who are 65-84 years of age visit a health care provider 11.4 times per year, and those who are 85 and older visit a health care provider 15.0 times per year.

While the previous statistics give examples for all older adults, older gay men and lesbians, out of fear of discrimination, are five times less likely to access health care and social services (Sharma, 2006). O’Hanlan, Cabaj, Schatz, Lock, and Nemrow (1997) found that 3 – 6% of patients seen by physicians are gay and lesbian including older gays and lesbians. Additionally, researchers have found that 51% to 82% of lesbians and gay
men do not disclose their sexual orientation to health and social service providers (Jillson, 2002). Researchers agree that many times gays and lesbians are subjected to complete indifference or lack of acknowledgement of their identity by health care service providers which interfere with communicating pertinent clinical information needed for successfully diagnosing, treating, and/or recommending preventive care (Brotman, Ryan, Jalbert, & Rowe, 2002; Dean, et al., 2000). As a result, many gay and lesbian individuals do not seek preventive screening tests or seek treatment for chronic or early intervention for both acute and chronic conditions (Brotman, et al., 2002; Brotman, Ryan, and Cormier, 2003; Dean et al., 2000; Harcourt, 2006; Taylor, 1999; Van Dam, Koh, & Dibble, 2001). The consequence of not using health care services increases health risks that affect the older gay and lesbian adults’ physical and mental health (Mail & Safford, 2003).

Cahill, South and Spade (2000) discuss the medical risk factors especially associated with the lack of utilization of health care services for midlife and older gay men. These include the increased risks of communicable diseases such as HIV transmission, hepatitis, and other sexually transmitted diseases. Researchers discuss the importance of older gay men having tests for HIV and vaccinations for hepatitis because both diseases can cause severe disability and be life threatening if untreated (Bassett, Conron, Landers, & Auerbach, 2002). Additionally, older gay men have a higher prevalence of alcohol and drug use, and higher incidents of smoking than their heterosexual counterparts (Sadovsky, 2000). Older gay men are also more susceptible to lung cancer, heart disease, anal cancer, non-Hodgkin’s lymphoma, and Hodgkin’s disease
(Harcourt, 2006). Overall, there are specific and important health risks associated with being an older gay man.

1.2 The Purpose and Significance of this Study and Conceptual Framework

As previously stated, use of health care services is one of the most important measures of successful aging because service use reduces mortality and disability. Researchers know little about the health care utilization practices of midlife and older gay men. Studies that measure midlife and older gay and lesbian health outcome utilization rates, and those factors that influence them, are lacking (Welles, 2007). The lack of prior research has been attributed to the lack of federal funding, difficulty in implementing rigorous methodology, differences in individual characteristics of the population, and the lack of inclusion in national studies that include sexual orientation indicators (Cahill, et al., 2000).

Further understanding and identifying the factors that hinder physical and mental health care use among midlife and older gay men such as the fear of discrimination are critical to effective social work practice. The National Association of Social Workers (NASW) endorses policies that commit the profession to eliminating discrimination and prejudice directed towards any group. These policies also mandate advancing practices that will improve the status and well-being of all lesbian, gay, and bisexual people. As stated in the National Association of Social Workers (NASW, 2008) Code of Ethics the profession is responsible for eliminating barriers to services, enhancing health and well-being, and empowering all individuals including those considered to be part of vulnerable groups as well as, those who might be oppressed. In order to utilize health care services
effectively, securing health and well-being, gay men need to be comfortable enough to utilize services and openly discuss their sexual orientation with their health care and social service providers.

Researchers have not fully explored factors that enable use of services such as health insurance, income, family and friends support, perceived community support, and their influence on health care and social service utilization rates for midlife and older gay men. The purpose of this research is to identify significant enabling factors that influence the use of physical and mental health care service use among midlife and older gay men. Researchers have noted that those gay men who are 45 and older have grown up in a society that has marginalized their existence and deterred many from revealing their sexual identity; because of discrimination, many are not seeking the health care and social services that they need (Cahill, et al., 2000; Jillson, 2002; D’Augelli, Grossman, Hershberger, & O’Connell, 2001; Butler, 2004; Butler, 2006). Therefore, an investigation that takes into consideration not only enabling factors but factors included within the psychosocial stress domain such as stigma, discrimination, internalized homophobia, and individual health coping factors such as resiliency and the midlife and older gay person’s internal health locus of control is needed. Enabling, psychosocial stressors, and individual health coping skills are important theoretical aspects that affect service use for this population. The investigation of these theoretical factors is needed to fully understand health care service utilization for this marginalized population. The Andersen-Newman’s Behavioral Model of Health Service Use developed by Andersen and further refined with Newman, (1968, 1973) along with Meyer’s Minority Stress
conceptual framework provide the theoretical basis used for this study. These models offer a framework from which to examine an array of possible factors associated with health care service use including both physical and mental health services.

1.3 Research Question

(1) When health care need is considered, do enabling factors have a significant influence on the use of physical and mental health services for midlife and older gay men?

(2) When health care need is considered, do psychosocial stress variables specifically, stigma, discrimination, and internalized homophobia have a significant influence on physical and mental health service use?

(3) When health care need is considered, do individual health coping skills of resiliency and internal health locus of control have a significant influence contributing to the use of health services?

(4) Do those who disclose their sexual orientation to their health care service provider use more physical and social services than those who do not disclose their sexual orientation?

(5) When health care need is considered, do psychosocial stress factors have more influence on the use of health care services than enabling variables?

1.4 Hypotheses

- All enablers will have a significant influence on use of health care services.
• All three psychosocial stress variables will have a significant influence on use of health care services.

• Resiliency and internal health locus of control beliefs both will significantly influence the use of health services.

• Those who disclose to their health care service provider will use more health care services than those who do not disclose their sexual orientation.

• Psychosocial stress will have more of a significant influence on health service use than enablers.

1.5 Definition of Terms

• Health care services include - services provided by a primary care physician, mental health service provider.

• Bisexual - A person who is sexually attracted to both same sex and opposite sex individuals.

• Discrimination – “A socially structured and sanctioned phenomenon justified by ideology and expressed in interactions, among and between individuals and institutions, intended to maintain privileges for members of dominant groups at the cost of deprivation for others” (Krieger, 2000, p. 41).

• Gay- a male, who is homosexual, who has attractions and sexual behaviors towards the same sex and who identifies as a gay man.

• GLBT – gay, lesbian, bisexual, and transgender
• Heterosexual – a person whose sexual desires are directed to those of the opposite sex.
• Homophobia – The fear of homosexuals, but is not a clinical term. Homophobia is the root of prejudice and discrimination based on a person’s sexual orientation.
• Internalized Homophobia – Mayfield (2001) writes that internalized homophobia is “the internalized negative attitudes toward homosexuality that gay men and lesbians often initially adopt as a consequence of growing up in a heterosexist and antigay society.” (p. 53)
• Homosexuality – Having sexual desires that are directed to those of the same sex.
• Lesbian – A female who is homosexual, sexually attracted to same sex individuals.
• Sexual orientation – Because gay, lesbian, bisexual, and transgender individuals do not choose their sexual identity, it is referred to as orientation, as opposed to choosing their sexual identity as a sexual preference, or choosing it as an alternative life style.
• Utilization of Health Care - “utilization is an essential element of measurement of access” (Mezey, 2004, p. 3).
• Heterosexism - Cahill, South, Spade (2000) define heterosexism as “An ideological system that denies denigrates and stigmatizes any non-heterosexual form of behavior, identity, relationship or community.” (p. 1)
• Resiliency – Promotes adaptation and reduces stress. It is part of the individual’s personality characteristics (Wagnild & Young, 1993). As defined by Wagnild (2003) “it is the ability to bounce back from adversity.” (p.43)

• Stigma – “the perceived and actual experiences of stereotyping among targets of stereotypes or the stigma-consciousness levels of targets of stereotypes—the extent to which they expect to be stereotyped” (Pinel, 1999, p. 115).

• Internal Health Locus of Control - measures people's belief in their own internal controlling agents of their physical health.
Chapter 2: Literature Review

2.1 Introduction

The review of the literature begins with a description of the current research on midlife and older men and their health, followed by a description of the age cohorts of midlife and older GLBT adults including a discussion of important generational cohort differences, and the importance that ageism plays for the current age cohorts of midlife and older gay men. The chapter will lead into a discussion about the importance of gay identity development and its connection to internalized homophobia and the importance of social support and resiliency skills for successful aging. There will be a discussion about health care service barriers and disclosure to the health care service provider. This will be followed by a review of the effects of stigma, discrimination and internalized homophobia on use of services for midlife and older gay men. The chapter will end with a discussion about the relevant studies that have looked at access and utilization of health care for midlife and older gay men, and the theoretical framework for this study.

2.2 General Characteristics of Midlife and Older Men

Scholars have identified several morbidity and mortality factors associated with midlife and older men. For instance, it has been shown that midlife and older men have fewer social supports and fewer medical checks ups than women. Social Support is known to be a facilitator to seeking care for older adults (Kirasic, 2004). Access to adequate health care is a significant factor for midlife and older men’s morbidity and mortality (Thompson, 2008). Longevity of midlife and older men in general is affected
by the fact that, unlike women, men do not seek health care based on changes to their bodies. Therefore, the decrease in the early detection, diagnosis, and treatment of health issues affects the longevity of their life expectancy (Morgan & Kunkel, 2001; Thompson, 2008). Overall, older women outlive older men by seven years (Cavanaugh & Blanchard-Fields, 2006). However, Thompson (2008) state that the seven year average extended life of women over men has decreased approaching closer to five years. He also reports that compared to women, older men have worse health at earlier ages. And, it is important to note that while older women, on average, are found to outlive men; longevity does vary due to culture and age cohort (Morgan & Kunkel, 2001).

The research has shown that midlife and older men have higher rates of death due to coronary heart disease, cancer, and stroke (Hooyman & Kiyak, 2005; Kirasic, 2004; Morgan & Kunkel, 2001). Additionally, as noted by Thompson (2008) for men, the age-adjusted death rate from the two leading causes of death, heart disease, and cancer, is one and one-half times greater than for women; from Parkinson’s, liver disease, and accident, two times greater; from suicide four times greater. (p. 5)

Overall, Cavanaugh and Blanchard-Fields (2006) report that of the top 15 causes of death, men have a higher significance of the causes of death than women and men are also more prone to infectious diseases. Whitbourne (2005) reported on the National Health Interview Survey of 2000 for chronic health conditions of men by age. For men aged 45 – 64 those with heart conditions were 13.4%, ages 65-74 were 26.0% and those 75 and over were 39.5%. The percentage of men 45-64 year olds indicating hypertension
were 21.5%, ages 65-74 were 31.5%, and 27.1% for the 75 and over age group. The percentage of men 45 – 64 reporting chronic bronchitis were 4.1%, ages 65-74 were 5.8%, and 3.4% for the 75 and over age group. The percentage of men 45-64 years old indicating arthritis was 19.3%, ages 65-74 was 39.5% and 43.8% for the 75 and over age group. The last health condition reported was diabetes. Those men 45 – 64 year of age reported 5.7%, ages 65-74 was 11.7%, and 12.9% of the 75 and over age group reported diabetes. CureResearch.com (2009) reported that 19.7% of men aged 45 to 64 were inflicted with high cholesterol. Thirty-nine percent of those who were aged 65 to 74, and 10.1% of those 75 and older, also have high cholesterol.

Midlife and older men also take on roles and behaviors that are associated with higher risks for certain diseases. For instance, men as they age continue to engage in tobacco use, alcohol use, not take precautionary measures in safety associated with driving or occupations as they age (Morgan & Kunkel, 2001; Thompson, 2008). While older women face less chances of fatal illnesses, they have more disability illnesses overall than older men (Hooyman & Kiyak, 2005; Morgan & Kunkel, 2001). As noted by Hooyman and Kiyak (2005), “researchers have found that among women aged 65 and older, 50% have at least two chronic diseases” (p. 116). Thompson (2008) believes that there is “evidence of a decline in men’s morbidity-free life expectancy” (p. 6). Morgan and Kunkel (2001) report that overall,

Men and women with no limitations decrease with age; a smaller proportion of the 85 and older group had no limitations compared to the 70 and older group.

Women reported more limitations than men did, especially at the oldest ages.
Only 40% of women aged 85 and over were free of limitations, while almost 50% of men in this age group functioned without help. (p. 355)

For midlife and older men, general well-being including having positive relations with others and self-acceptance is stable over the life span. Additionally, depression is not a common occurrence in midlife adults or does age cause an increase in depression (Kirasic, 2004). Currently, Thompson (2008) notes that in 2004 the average life expectancy of men is 75.2. This has increased from 48 years in 1900. It is believed that many men who are 50 years of age will live to be 81.

The following section will describe the general characteristics of the population of midlife and older gay men. Cohort differences based on age and generational factors, and the affect of historical events that affect sampling.

2.3 General Characteristics of the Study Population

Using a conservative estimate most experts speculate 3 – 8% of the U. S. population is gay, lesbian, or bisexual (GLB) (Shankle, Maxwell, Katzman, & Landers, 2003). Witeck and Combs Communications (2002) have projected there to be 15 million GLB adults in the United States. The reported estimate of the number of GLBT adults who are older has varied. According to Shankle et al. (2003), there are an estimated 1 – 2.8 million GLB individuals who are 65 and older. Hunter (2005) has noted there to be 1.75 to 3.5 million older GLB individuals over the age of sixty in the United States. The older gay and lesbian population is estimated to double by 2030 (Butler, 2004). It is believed that the racial and ethnic distribution mirrors that of the U. S. population at large (Butler, 2004). Many older gay and lesbian adults grew up prior to the beginning of the
gay civil rights movement which began in 1969 with the Stonewall Inn riots in New York City. These individuals have lived their lives hiding their sexual identity due to discrimination and prejudice.

The following age cohorts of 45-64 (Stonewall cohort), and 65 and older (Pre-Stonewall cohort) are considered to be important birth cohorts in aging research for gay men (Cahill, et al., 2000). The distinction between midlife of 45 -64 years of age and older cohort differences is important to this research to better understand the social aspects of historical marginalization and ways of coping among older gay men in their environments. A better understanding of their historical differences allows for consideration of cohort influences, such as the effects of ageism, generational historical events such as the Stonewall riots of 1969, the resulting GLBT civil rights movement, and the resulting societal changes taking place today. The older gay and lesbian adults from the 45 and older age cohort tend to be hidden and harder to reach than their younger counterparts (Shankle, et al., 2003). The next section will outline cohort effects based on the social significance of the historical time frame of when these midlife and older gay men were born.

2.4 Birth, Generation, and Historical Cohort Differences

The Stonewall riots of 1969 ensued after the police raided the Stonewall Inn, a New York City gay bar. Gays and lesbians fought back rioting against police harassment (Cahill, et al., 2000; Hunter, 2005). This event is credited for starting what has been labeled the modern day gay civil rights movement (Cahill, et al., 2000). Adolescents who realized their same sex attractions before, and for the years following Stonewall,
experienced more discrimination and oppression than those who have identified as gay or lesbian later. Hunter (2005) describes those who were born before 1917, age eighty-five and older today, as making up the fastest growing segment of the older LGBT population. Those gay men born around 1930 who today would be around 78 years of age served in the Armed Forces of World War II, and they were connected for the first time with other GLBT individuals who were like themselves. Many were discharged from the service having been identified as “homosexual” and had a difficult time integrating into society. Elder, Shanahan, and Clipp (1994) conducted a study with men who served in World War II and found that the age of entering the service (i.e. 18 versus 30) affected the individual’s postwar behaviors and successful integration back into society. Hunter (2005) noted that those who were gay had even more obstacles to folding back into society upon return from service. Many gay men were less successful re-entering civilian society. Elder and his colleagues (1994) describe this as “social disruption” which is linked to an increase of health risks including physical and physiological negative effects depending upon the life trajectories and individual consequences that occurred in personal life upon re-entry into civilian society. Hunter (2005) also noted the unique obstacles for gay men. The re-entry into civilian society was even more difficult for those who identified as gay. Many returning veterans experienced lingering stress from having been in the war and the postwar climate in America of not sharing and communicating the trauma they experienced as well as, the hiding of their sexual identities.
Those gay men born around 1932, who were in their early twenties in the 1950’s, experienced the U. S. Senate’s investigations of government employees who might be “homosexual.” Hunter (2005) gives a brief history of the investigations during the 1950’s, and states that it was “accompanied by a report that claimed that these persons were dangerous because they were predatory and capable of changing heterosexuals into ‘homosexuals’” (Hunter, 2005, p. 10). Hunter (2005) goes on to describe that in 1953 many gays and lesbians were dismissed from jobs and were perceived as communists and were “viewed as a menace and as security risk, were not only sought out and fired from the State Department and other federal agencies but from businesses contracting with the federal government” (p. 11).

There were no Gay Pride celebrations or liberation of any kind during these earlier years prior to the Stonewall riots. Many from this generation did not come out to themselves or anyone else until much later in their lives, if at all (Cahill, et al., 2000). According to Hunter (2005), the older GLBT generation is the last generation to have for the most part lived their adolescence and young adult years in complete hiding.

At the age of 64 today, born in 1946, the gay or lesbian individual would have been in young adulthood, 23 years of age and over, at the start of the gay civil rights movement in 1969. Those individuals age 45 to 62 in 2009 were born between 1947 and 1964. They make up two distinct birth cohorts of those who are considered midlife by age. There were those who were children in the 1960’s and experienced civil rights and antiwar activism, and they were influenced by Stonewall and the start of the gay civil rights movement. Those who were born in the early 1960’s have experienced sexual
identity development as societal norms were being pressured for change (Cahill, et al., 2000). They are considered the Stonewall generation who began to advocate for liberation and fight for their rights. The Stonewall generation included individuals from the baby boomer generation that has since been more open about sexual identity earlier in life, and these baby boomers expect that there will be social support services available to them as they grow older (Cahill, et al., 2000). Many from this generation lived young adult years with the HIV/AIDS epidemic and have seen many close friends die from the disease.

These generational cohorts, those 45 to 64 and 65 and over, have produced important influences that contribute to the phenomenon under investigation for this research proposal. The degree of societal marginalization experienced by these generational cohorts, tied to their birth cohorts, are thought by researchers to influence how these individuals approach the use of health care services and the effects that stress associated with stigma, discrimination, and internalized homophobia have affected their health seeking behaviors. The inclusion of individuals within these cohorts are based on the timing of the developmental stages of when a person realized that his sexual identity was different from peers, and it also is a result of the social and historical life course events outlined above that had an influence on the socialization of these gay men who have survived into their middle and late years.

2.5 Midlife and Older Gay Men’s Perceptions of Age

Midlife generally is considered to be between 45 to 64 years of age and young-old typically is considered between the ages of 65-74. Those between the ages of 75-84 are
considered old-old, and the age of 85 and over is considered the oldest (Hooyman & Kiyak, 2005). However, the definition of what is considered older age, excluding birth age, within the GLBT population has been found to be at an earlier age. For example, Shankle et al. (2003) state:

Governmental statistics generally define old as 60 to 65 and beyond, which is the typical age that most individuals become eligible for Medicare benefits. Many empirical research studies focusing on LGBT persons have defined older in a range from 45 to 50 and beyond. (p. 161)

One of the explanations for why the GLBT culture perceive older age beginning earlier than their heterosexual counterparts is due to ageism that is particularly unique to older gay men within the gay culture (Friend, 1987; Wahler & Gabbay, 1997). The GLBT culture is known for valuing youth and ignoring and excluding its older members (Cahill, et al., 2000). Cahill et al. (2000) argue that “ageism is the devaluing of, exclusion of, or discrimination against people because of their age” (p. 18). These researchers believe that ageism contributes to the lack of health care service use for older gay and lesbian adults due to the lack of emphasis on services for older GLBT adults within the gay community. While researchers describe the “coming out” process for gays and lesbians to be during adolescence, many in the older gay and lesbian cohort came out much later or not at all (Jillson, 2002). The next section will discuss the stages of gay identity development, which is an important factor to better understand the current cohort of midlife and older gay men.
2.6 Gay Identity Development

Cass (1979) outlines a homosexual identity formation model, consisting of six stages beginning with realizing that one is different than peers. In the second stage, the individual will compare him or herself to other heterosexual peers to act heterosexual in order to conceal a homosexual identity. In the third stage, the individual realizes he or she is gay and tolerates the identity having negative attitude that affect his or her self-confidence. In the fourth stage, individuals are reaching out to others in the gay community in order to make connections. The fifth stage the individual will continue to make community connections and be more involved. This involvement increases self acceptance of a gay identity. The final stage results when the individual is able to accept his or her identity within society respecting differences without causing internal conflict.

Troiden (1989) outlines an alternative to Cass’s homosexual identity development model. In the first stage the one realizes being different than same-sex peers and usually happens before puberty. The second stage brings about internal conflict about one’s sexual identity as being gay or lesbian. The third stage is called identity assumption. In this stage the individual accepts his or her gay or lesbian identity. Acceptance allows the individual to be more involved in the gay community in order to explore their sexual orientation and usually is seen around late adolescence and early adulthood. In the last stage, the individual becomes committed to their sexual identity in order to further accomplish goals and to reach a level of success for themselves. As noted by Hollander
(2000) the stages in gay identity development are not completely linear and can be influenced by the social environment. Societal constraints such as the presence of homophobia within the environment have an influence on sexual identity development and affect the GLBT individual throughout his or her life time. Examining homosexual identity development further, many researchers agree, that societal homophobia is the most damaging influence on GLBT sexual identity development. Vare and Norton (1998) state that homophobia prevents gay persons from acquiring affirming information needed during identity formation, which in turn, often causes isolation. The result is high rates of suicide, post-traumatic stress disorder, and problems with alcohol and substance abuse that researchers attribute as the result of internalized homophobia. Vare and Norton (1998) discuss the individual’s exposure to social stigma. Social stigma results when a questioning or identifying adolescent adopt a more heterosexual identity as a way to cope that counters their true developing identity and results in further isolation.

It has been found that many obstacles interfere with or discourage GLBT adolescents from openly revealing their sexual identity and increases their isolation. Typically many adolescents who are identifying or questioning their sexual orientation will hide their emerging identities from their family and friends referring to it as “a secret” (King, 2008, p. 375). Uribe and Harbeck (1992) have discussed that keeping their sexual identities “a secret” can be very disruptive socially and emotionally when the individual should be building self-concepts while their identities are developing. Martin and Hetrick, (1988) have noted the importance of resolving social stigma within their environment which is one of the biggest obstacles faced by these adolescents. For many
GLBT individuals the struggles from social isolation, stigma, and concealment of identity continue well beyond adolescence and create risks throughout the life span. Rowen and Malcom (2002) found in their study of men who were involved in their GLBT community, that age was associated with the stage of homosexual identity formation experienced. They described the average age of those who were in the lower stages of identity development to be 27.36. They concluded that homosexual identity development stages are not accomplished until adulthood rather than during adolescence.

Concealment of one’s sexual orientation is especially an issue for older adults today who grew up at a time when homosexuality was considered a mental illness prior to removal from the Diagnostic Statistical Manual in 1973 (Meyer, 2003; Kochman, 1997; Shankle, et al., 2003). Friend (1990) proposes that gay men use concealment strategies to manage the stigma and discrimination they face. The fact that midlife and older gays and lesbians conceal their identity does not allow them to fully reach Cass’s (1979) sixth stage of identity synthesis, during which the person affirms a gay or lesbian sexual identity. Friend (1990) states that because of the inability to reach a stage of affirmation of one’s identity, older gays and lesbians lack skills needed to effectively access and utilize health care services. The importance of having a positive and integrated gay identity has been found to be important for increased well-being and self-esteem and lower mental health distress (Frable, Wortman, & Joseph, 1997). Additionally, Friend (1990) states that the older gay adult’s ability to be resilient, which is developed by the use of concealment management techniques throughout the life course, produces role flexibility and crisis competency skills for later life. However, concealment management techniques have a
detrimental effect on use of health services. This concept will be further discussed in a later section on resiliency.

2.7 Social Support Networks

Social networks may influence health status by encouraging behaviors that promote health and decrease unhealthy behavioral practices for all older persons. It has been found that the social network of many older adults provides a resource for health information, advice, and alternatives (Lubben, 1988). Newsom and Schulz (1996) promote the importance of social relationships as vital to psychological health, and they report that social relationships impact one’s sense of happiness and well-being. In this study it was important to include a measure of social support networks. In addition, social support is a domain included within Andersen-Newman’s Behavioral Model of Health Service Use. Furthermore, Newsom and Schulz (1996) discuss the importance of social support to relieve stress attributed to the aging process. These scholars note that often times by not having a developed social network the results can be “an important reason for decreases in life satisfaction and increases in depressive symptoms found among older adult populations” (p. 34). Social support for midlife and older gays and lesbians has an effect on health and becomes vitally important as individuals age (Shippy, Cantor, & Brennan, 2004). For the midlife and older gay man, researchers have found that the social support needs of this population do not differ from heterosexual men. Gay men were no more likely to become isolated as their heterosexual counterparts found in the general population (Shippy, et al., 2004). Lubben (1988) noted that for the older adults, friendship or peer relationships, more than family networks, provided emotional
support. Lubben emphasized the need to address both family and friendship support in measurements of available social networks.

Newsom and Schulz (1996) explain that changes which take place as one ages cause stressful events, but social supports can buffer the impact of these stressors on one’s health. Many GLBT individuals do not have children to help them in older age (Shankle, et al., 2003). Weiss (1995) theorizes that older adults in general face more complex situations because of their increased biopsychosocial needs at a time when their resources are becoming more and more limited. He discusses that the complexities involved in a gay person’s individual, family, social, and cultural worlds may exacerbate their vulnerability in later life. Many gays and lesbians experience varying degrees of acceptance when “coming out” to parents and families members. Some are subjected to either lifelong rejection or a lack of acknowledgment of one’s sexual identity (Hunter, 2005). Therefore, researchers have discussed that many GLBT individuals will develop support networks made up of non-kin friendships which are referred to as family of choice. These friendships supports are relied upon more than biological family (Shippy, et al., 2004; Hunter, 2005). Grossman, D’Augelli, and Hershberger (2000) studied 416 LGB adults age 60 and over and found that older gay men mostly relied upon friends, followed by partners, for support. These scholars note that the integration of the older gay man into his biological family has not been explored in research. However, the results of the Grossman et al. (2000) study found that biological family was less often included as support. At the same time, 33% of their respondents mention having siblings as supports.
Safford (2002) discussed the availability of agency services for support of older gay and lesbian adults and concluded that there is a lack of health care services in the larger cities where older LGBT individuals are often more personally isolated, and where typically, there is a shortage of health care providers. It has been found that older GLBT individuals are more likely to live alone, and are less likely to have children to care for them or to have a partner (Cahill, et al., 2000). One study of 253 gay and lesbian older adults in New York City found that 65% lived alone. The rate was 36% for all residents of the State of New York. This study is cited by Cahill et al. (2000) and Butler (2004) and was conducted by the Brookdale Center of Hunter College in conjunction with Service and Advocacy for Gay, Lesbian, Bisexual and Transgender Elders (SAGE). In another study by Rosenfeld (1999), which was conducted with older adults in Los Angeles, it was found that 75% of gay and lesbian older adults lived alone.

Additionally, there are fewer agency programs and services designed specifically for GLBT older adults in most communities across the country (Shippy, et al., 2004). Older GLBT adults also perceive that caregivers for their health care needs are lacking. At a New York Fair, Pride Senior Network conducted a survey in 1999 and reported that 64% of GLBT participants who were 50 years of age and younger indicated that they could name someone who would provide them with caregiving. However, among those who were 51 years of age and older, 68% could not name one person that they could count on for care giving (GLMA, 2001). Therefore, gay and lesbian older adults turn to services provided by mainstream support agencies at a time when they are at an increased risk to social isolation and living alone (Shankle, et al., 2003; Shippy, et al., 2004).
Moreover, many mainstream service providers are not receptive to the support needs of older GLBT individuals (Shippy, et al., 2004).

2.8 Resiliency Skills and Internal Health Locus of Control

Wagnild and Young (1993) reported that resiliency in midlife and older age has been found to contribute to life satisfaction and successful aging. Especially important for this research, which was conceptually framed using Meyer’s (1995, 2003) proposed Minority Stress conceptual framework, being resilient is correlated with positive stress management skills. Wagnild and Young (1993) and Wagnild (2003) report that being resilient lowers depression and increases morale and overall positive health. More importantly, the ability to be resilient in older age increases health prompting behaviors (Wagnild, 2003). Wagnild (2003) stated

What might be expected if a person is less resilient? It follows that these individuals may be less likely to report satisfaction with their lives, have poorer self-rated health, practice fewer health-promoting behaviors, and experience more depression. Individuals with less resilience may not enjoy successful aging in the same way as those more resilient. (p.43)

Many researchers (Berger, 1996; Friend, 1990; Butler, 2004; Healy, 2002) describe older gay and lesbian adults as having heightened abilities to handle crisis situations because of the skills they have developed to manage the stigma and discrimination experienced during their lives. These researchers purport that older gay and lesbian adults develop resilience over the life span due to their marginalization within society, and they describe this as “crisis competency” (Friend, 1990; Butler, 2004;
Berger, 1996; Healy, 2002). Berger describes “crisis competency” as a psychological process in aging. “Crisis Competency” skills develop for many gays and lesbians in adolescence when they are faced with a sexual identity crisis realizing their sexual attraction towards the same sex (Berger, 1996). During this time many gays and lesbians face family members who do not support them which often results in estrangement from the family (Hunter, 2005; Berger, 1996). Resiliency skills developed in overcoming the family’s rejection continues to be developed throughout the life span when faced with marginalization within society. This identity crisis situation when resolved results in an ability to face future life crises, such as death of family and friends in older age and with a sense of competence and ability (Berger, 1996). However, as noted by Berger and discussed by Cass (1979), if the person decides to permanently conceal his or her sexual identity, or wait to identify until later life, many will not develop crisis competency skills.

Berger (1996) further describes ways that GLBT individuals have increased resiliency skill development. For instance, he discusses that gender roles are more fluid for gay and lesbian older adults. The skills developed for self care, which often cross rigid gender roles, may not be as defined as they are for their heterosexual counterparts. Berger (1996) uses the example of a widow who now must change the oil in her car, read the electric meter, and carry out other tasks which previously were done by her deceased husband. Berger states that for many gay and lesbian couples these tasks have stretched across traditionally defined gender task roles creating a psychological belief in competence that transfers to behaviors that promote these skills and result in positive impacts on successful aging. When developed, these skills create positive effects on self-
acceptance and self-esteem (Berger, 1996). However, this scholar notes that if the older gay or lesbian has internalized the homonegativity, he or she may not have developed crisis competence skills needed in older age. Thereby, there is greater difficulty obtaining a level of successful aging and results in a threat to the older adult’s health and welling being. In summary, as stated by Berger (1996)

Crisis competency flexibility in gender role, and reconstructing the personal meanings of homosexuality and aging so they are positive have powerful effects on the individual psychology of older lesbian and gay people. At a cognitive level there is the adoption of a set of beliefs that affirm personal worth. At a behavioral level, adaptive skills that promote both daily living and a sense of competence and empowerment are developed. (p. 292)

The amount of individual health coping skills available to the individual is an important domain to examine within the minority stress model that Meyer (1995, 2003) proposed. Individual health coping skills for midlife and older gay men are thought to have been developed from lifelong marginalization providing resiliency in older age (Friend, 1990). Additionally, those who possess high internality, possessing an Internal Health Locus of Control for health control belief outcomes, engage in more health preventive practices which influence positive health outcomes and a belief that their own health behavior determines their health status. Moreover, internals are more likely to carry out healthy behaviors (Wallston, Wallston, & Devellis, 1978).

For this research, as noted by Dean et al. (2000), possessing resiliency skills or having Internal Health Locus of Control beliefs may not prepare gay persons with the
skills they need to face discrimination often faced when seeking the use health care services. Dean et al. (2000) suggest that if gay or lesbian individuals do not have strong coping skills such as self-efficacy to counter discrimination and other biased interactions with the provider; they will avoid health care services. Dean et al. (2000) describe specific incidents where the lack of self-efficacy could result in lack of service usage. The history of GLBT discrimination and other social constraints inevitably result in uncomfortable power imbalances between the health care service provider and patient. Welles (2007) raises the importance of researchers further examining the role of coping and resiliency in health outcomes. He states that coping and resiliency “has not been well evaluated in LGBT populations” (p. 3) with regards to health outcomes. It has been found that psychological stress factors affect mental health outcomes (Meyer, 1995). Meyer (1995) found that stigma, discrimination, and internalized homophobia each independently affect levels of psychological distress. However, we are not sure of the significant contribution of minority stressors on physical and mental health service use. This study will examine how minority stress factors such as internalized homophobia, stigma and discrimination, along with individual health coping measures such as resiliency and an internal health locus of control influence midlife and older gay men’s use of health care services. The next section will discuss the effects of stigma, discrimination, homophobia on health care service use.

2.9 Stigma, Discrimination, and Homophobia

Many barriers have been noted by researchers to prevent gays and lesbians from using health services. One barrier is stigma and bias that gay and lesbians experience
when they use services. According to Jillson (2002), discrimination, homophobia and bias create barriers that deter GLBT individuals from obtaining preventive care and treatment for acute and chronic conditions. Lack of preventive care will interfere with early detection of illness, delay in diagnosis for needed care, and maintenance of ongoing chronic health needs. Barriers typically are inter-related and connected to health care service utilization. Whether discrimination is perceived or actually experienced from past or current events of discrimination against gay and lesbian patients by health care and social service providers, the negative influence on use of services is the same (Jillson, 2002).

Internalized homophobia and homophobia from health care service providers are barriers to utilizing health services. Mayfield (2001) writes that internalized homophobia is “the internalized negative attitudes toward homosexuality that gay men and lesbians often initially adopt as a consequence of growing up in a heterosexist and antigay society” (p. 53). When an individual internalizes this negativity it is called internalized homophobia. Studies have measured internalized homophobia in older GLB adults. In one survey conducted by D’Augelli et al. (2001), these researchers found that of 416 LGB adults ages 60 to 91, it was found that the older gay men within the study reported more feelings of internalized homophobia. These participants also expressed more suicidal ideation and alcohol abuse related to their sexual identity. Those gay men in the study with less internalized homophobia had fewer suicidal thoughts and reported better health. Three attributes were associated with better health (1) having better cognitive
functioning, (2) higher self-esteem, and (3) disclosing one’s sexual orientation to more people, thereby reporting less loneliness.

As stated previously older gays and lesbians who grew up before the Stonewall riots frequently were subjected to extreme discrimination and marginalization because of their sexual orientation. As defined by Krieger (2000), discrimination is a socially structured and sanctioned phenomenon, justified by ideology and expressed in interactions, among and between individuals and institutions, intended to maintain privileges for members of dominant groups at the cost of deprivation for others. (p. 41)

Older gays and lesbians kept their identities concealed and continued this practice later into older age (Butler, 2004). Concealment contributes to the lack of service access and utilization partly due to being invisible (Butler, 2006).

In addition to the fear of discrimination based on one’s sexual orientation, many gays and lesbians avoid bias and internalized homophobia in health care services by not disclosing information about sexual orientation, behavioral risks, and personal practices which are information needed for receiving complete care (Jillson, 2002). Many gays and lesbians experience embarrassment, anxiety, inappropriate reactions, direct rejection of the patient or exhibition of hostility, harassment, excessive curiosity, pity, condescension, ostracism, refusal of treatment, detachment, avoidance of physical contact, or breach of confidentiality (Brotman, et al., 2003). Researchers have indicated in research studies the extent to which many health care workers, physicians, and medical students report being homophobic and discriminatory against GLBT individuals (Dean, et
Health care provider homophobia has an effect on use of health services including decisions to disclose one’s sexual orientation to the HCP. In a study conducted by Zeidenstein (1990) almost 50% of highly educated, professional lesbian women did not utilize health care even though they had health care access. The reason found was because of past negative experiences with health care providers.

Most investigators studying health care and social service use with gay men have focused on those with HIV and AIDS. In Wadsworth and McCann’s (1992) study of 263 gay men who were positive for the human immunodeficiency virus, they found that 87% were registered with a general practitioner. There were 104 men who experienced symptoms but only 39% informed their general practitioner. Furthermore, 49% of those who were not registered with a general practitioner used a specialist affiliated with an outpatient clinic for all their health care needs. Of those with a general practitioner who knew of their status, 72% of them used a specialist outpatient clinic. Wadsworth and McCann (1992) concluded that one reason these men did not seek care through the general practitioner was because of these patients’ concerns about confidentiality, and their lack of confidence that the general practitioner would understand about their sexual orientation. Kass, Faden, Fox, and Dudley (1992) found that 18% of men with AIDS were refused treatment by a doctor or dentist because of the actual or believed HIV positive diagnosis. The age of the participants was not reported (Kass, et al., 1992).

Butler (2004) states “discrimination toward lesbians and gay men may be particularly pervasive in the elder care system which has gone largely unchallenged with
respect to its treatment of GLBT elders” (p. 26). Many gay and lesbian adults often face stigma, discrimination, and avoidance of their existence by health care providers. Researchers’ have further noted that perceived or real discrimination creates barriers to utilization that result in substandard care or avoidance of routine health care (McGarry, Clarke, Cyr & Landau, 2002; Dean, et al., 2000; Safford, 2002). This results in medical diagnoses that are not forthcoming from physicians. These gay adults consequently fail to receive needed treatments.

Stigma has an effect on the individual who is interacting with the dominant group on a consistent basis throughout life. The minority status of the individual produces a conscious awareness of prejudicial actions causing internal reactions and increased personal awareness of the perceptions of others. The end result of constantly being aware of stigma creates stress for the individual (Meyer, 2003; Pinel, 1999). Furthermore, there are the effects within the individual’s environment that are associated with concealment of one’s sexual identity. Often, individuals will conceal their identity as a coping strategy to avoid the consequences of stigma. Therefore, the result of using concealment as a coping strategy can instead increase stress (Meyer, 2003). Several researchers (Brotman, et al., 2003; Drescher, 2002; Cahill, et al., 2000) have discussed that hiding one’s sexual orientation to avoid stigma can be used to protect these persons from shame and guilt they might feel. Additionally important for this research, Shankle et al. (2003) found that many gay men do not come out until midlife or later leading to sexual identity development issues later than many others.
2.10 Discrimination and Homophobia in Mainstream Agencies

Discrimination and homophobia, which have been found in social service agencies, create a barrier to utilizing available services for older GLBT persons. The most widely used form of services for older adults are from the Area Agencies on Aging (AAA). Behney (1994) conducted a study in New York State of these agencies. Forty-six percent of the AAAs interviewed indicated that if a gay or lesbian older adult’s sexual orientation were known they would not be accepted at the center. Furthermore, 63 lesbians and 58 gay men were surveyed and 72% were found to be hesitant about using services from their AAAs. Sixty-two percent of the respondents wanted separate service organizations for their needs. However, sixty-four percent of these AAA’s felt that was not necessary. Cahill et al. (2000) reported that there are no laws in 41 states that protect gays and lesbians from discrimination in many areas, including nursing homes, housing and public accommodations. Therefore, many older gay and lesbian individuals are forced back into the closet to conceal their identities out of fear of discrimination and abuse when utilizing services. In one study in a nursing home setting, Fairchild, Carrino, and Mildred (1996) found that social workers never discussed gay or lesbian sexuality; instead they referred to sexuality in relation to heterosexuality ignoring aspects of the lesbian and gay identity. Furthermore, 52% of the social workers interviewed said that staff attitudes were “intolerant and condemning.”
2.11 Education, Financial and Insurance Barriers

Dean et al. (2000) reported that GLBT individuals with education levels higher than their heterosexual counterparts often were found to have lower socioeconomic status levels. Researchers agree that the financial and health insurance barriers faced by many GLBT individuals also adversely affect their health outcomes (GLMA, 2001). For example, it has been found that GLBT elders are less likely to have access to supplemental coverage through a partner’s health plan. In three separate studies of lesbian health, Cahill et al. (2000) noted that 12.3% to 27% of respondents did not have health insurance. Overall, researchers reported that GLBT individuals were more likely than heterosexual individuals to be either uninsured or underinsured (Jillson, 2002; Safford, 2002).

For gay men, and specifically older gay men, there are no studies that report on the health insurance status of these individuals. In one study (Stall, 2000), the Urban Men’s Health Study, a random sample of men in San Francisco, New York, Los Angeles, and Chicago was secured using census tracks of highly gay populated neighborhoods. It was found that about 16% of men who had sex with men were not covered with health insurance. Additionally, it was found that 13% of these men did not have a primary health care provider and 20% had not disclosed to their health care providers that they had sex with men. Researchers stated that having a higher socioeconomic status seemed to predict having insurance and a health care provider. Additionally, those who had
disclosed their sexual identity to significant others were increasingly more likely to be “out” to their health care providers. Other researchers have also reported that GLBT individuals, especially lesbians of color and gay men with HIV/AIDS, have a lower socioeconomic status than what is found in the general population (Jillson, 2002). Additionally, GLBT individuals that have health insurance may be reluctant to use it out of fear of the consequences on their employment (Dean, et al., 2000; Jillson, 2002). Copeland (2005) reported that Blacks, more than Whites, were less likely to have jobs that provided health insurance and were more likely to obtain health insurance from Medicaid and other publicly funded insurance. They also were twice as likely to be uninsured.

2.12 Structural Barriers to Health Care Service Use

There are several structural barriers that are affected by discrimination, stigma and homophobia that directly affect health care service utilization. These barriers include the unfamiliarity by health care service providers of GLBT specific health needs which contributes to the lack of cultural competency. There is also the lack of recognition of partners in health care decisions, exclusion of sexual orientation and relationship status on health care forms, and the fear of breach of confidentiality. Jillson (2002) has documented the structural barriers found within the health care setting that are found to influence the behaviors and attitudes that gays and lesbians have towards health care services, which affect health outcomes. Many structural barriers surround what Neville and Henrickson (2006) and Taylor (1999) call “hetronormativity.” Cahill et al. (2000) further describe these structural barriers as “institutionalized heterosexism” (Cahill, et al.,
2000). These authors define heterosexism as “an ideological system that denies, denigrates and stigmatizes any non-heterosexual form of behavior, identity, relationship or community” (p. 1). For instance Jillson (2002) and Safford (2002) report on the health care service providers “unfamiliarity” (Jillson, 2002, p. 155) with the GLBT population and the lack of cultural competency. Other structural barriers discussed by researchers include the lack of Federal and State legal recognition of same-sex partners (Jillson, 2002), and exclusion of medical structures including intake forms that do not ask about sexual orientation or relationship status (Dean, et al., 2000; Neville & Henrickson, 2006).

Moreover, many individuals have employer provided health insurance and participate in a Health Maintenance Organization (HMO). Due to the detail of information needed to approve benefits, gay men have been found to fear a breach of confidentiality that could result in employment discrimination. The fear of discrimination is further sustained by the fact that in 42 states it is legal to discriminate in employment based on sexual orientation and gender identity (HRC, 2008). These discriminatory factors decrease gay men’s sense of security when they do not know that treatment will be provided with respect and with confidentiality by insurance companies, practitioners and service providers (Jillson, 2002).

2.13 Direct Effects of Psychosocial Stress for Older Gay Men

Health status is influenced by stress and available social supports (Hooyman & Kiyak, 2005). Stress increases one’s risk for illnesses, such as cardiovascular disease. However, many older adults are able to avoid these risks by developing individual health coping skills and self-control measures over the life span. Cahill et al. (2000) discuss that
internalized homophobia and heterosexism of midlife and older gay men resulting from broad societal oppression and stigma (Vare & Norton, 1998; Friend, 1990; Martin & Hetrick, 1988; McGarry, et al., 2002; Dean, et al., 2000; Safford, 2002) and agency and practitioner homophobia and discrimination (Cahill, et al., 2000; McGarry, et al., 2002; Dean, et al., 2000; Safford, 2002) which affect use of health care services. Many older gay men have lived their lives in a society were health care service providers have discriminated and stigmatized their identities. As has been described, many gay men and lesbian women fear discrimination when accessing health care (McGarry, et al., 2002; Butler, 2004; van Dam, et al., 2001). This fear can interfere with complete and appropriate communications with the health care provider. Harrison and Silenzio (1996) believe that the patient and practitioner relationship is the most important factor that effects health care utilization for gays and lesbians. This fear of discrimination, which has been described by some researchers as shame and embarrassment (Drescher, 2002; Cahill, et al., 2000; Brotman, et al., 2003) affects gay persons’ access to health care and disclosure to the health care provider (Beehler, 2001; Potter, 2002; Eliasen & Schope, 2001; Cant, 2005; Brotman, et al., 2002). The next section will discuss the importance of disclosing one’s sexual orientation to the health care provider and how this affects health outcomes for this population.

2.14 Disclosure of Sexual Identity to Health Care Service Providers

Disclosing one’s sexual orientation has an important role in securing positive health and well-being. In two separate studies, an association was found between disclosure of one’s sexual orientation and overall physical health. Cole, Kemeny, Taylor,
and Visscher (1996) researched 220 HIV seronegative gay men over a six month period examining medical exams including exercise, blood work, sleep patterns, and drug and alcohol usage rates. They found that those who concealed their sexual orientation were more likely to have experienced a slight increase in cancer and certain infectious diseases. Taylor (1999) noted there have been no research findings proving a causal relationship between better health and disclosure for gay men. Taylor (1999) believes that health care providers who are not aware of a gay or lesbian patient’s sexual identity are not able to provide “holistic care treating the whole person.” In a qualitative study, gay men indicated that the relationship with the health care provider and the exchange of important information facilitates healthy outcomes (Beehler, 2001). Moreover, participants in Beehler’s study acknowledged the importance of the health care provider as the first contact for any additionally needed care they may need. Overall, these studies seem to indicate that there is an association between disclosure and increased health and utilizing of health care services.

Researchers have discussed that non-disclosure to health care practitioners’ limits health care knowledge and information that is not exchanged between the health care provider and patient (McGarry, et al., 2002; GLMA, 2001; Dean, et al, 2000). The lack of exchange of health knowledge has an influence on a patient’s health when there is a failure to disclose one’s sexual orientation to the health care providers. These patients receive less information and knowledge from the health care providers which they could benefit. Failure to use health services sometimes results from the person’s non-disclosure of sexual identity which is included as an important outcome within the Andersen-
Newman Behavioral Model of Health Service Use. Gay persons’ often delay using health care services because of their concerns regarding disclosure to health care providers (Brotman, et al., 2002; White & Dull, 1997). Individuals who do disclose, they use health care services more often (Steele, Tinmouth, & Lu, 2006; Brotman, et al., 2002).

White and Dull (1997) found that among 324 lesbian respondents, 90% had disclosed their sexual orientation to at least one health care provider (HCP). Twenty-two percent of these respondents used health care without acute or chronic symptoms, such as preventive care, while 23% waited until symptoms were at their worst to seek care. Overall, those who disclosed to the HCP used health care more frequently. Few investigations have examined disclosure to the health care provider by midlife and older gays and lesbians or considered how this might affect these individuals use of health services. Researchers have reported that 51% to 82% of lesbians and gay men do not disclose their sexual orientation to HCPs (Jillson, 2002). Witeck and Combs (2002) found in a separate study of 159 gay and lesbian adults, that 33% of gay men and 45% of lesbians did not disclose their sexual orientation to their health care providers. The overall result in non-disclosure increases the stress for the gay and lesbian adults that affects physical health and creates a population with increased health risks (Mail & Safford, 2003).

Mail and Safford (2003) discuss stress, from “coming out” to family, co-workers, and friends, has the potential for increasing internalized homophobia that affects overall physical and emotional well-being. The possible negative effects from non disclosure
issues accumulate over the life course affecting perceived access and utilization rates for health care services in older age. Dardick and Grady (1980) found in their study that 16% of a sample population of 622 gay and lesbians did not disclose their sexual orientation to relatives. Forty-three percent of the sample was “out” to co-workers and other colleagues. Forty-nine percent shared their identity with their health care providers with only 7% not sharing any information with their health care provider “under any circumstances” and 11% assuming their health care provider knew and not directly disclosing. However, the age range of the participants was between the ages of 21 and 41 and did not include midlife and older adults. Overall, many gays and lesbians will avoid seeking care because of the fear of disclosing to the health care service provider (Dean, et al., 2000). There is a correlation with being comfortable enough with the provider to have disclosed one’s sexual identity and utilization rates of health care services (GLMA, 2001). In a qualitative study, gay men indicated that the relationship with the health care provider and exchange of important information facilitated healthy outcomes (Beehler, 2001). Beehler (2001) found that participants indicated that the comfort level with the HCP was the most important issue in negotiating the relationship.

In an exploratory study, van Dam et al. (2001) found that of 524 participants who identified as lesbian with an average age of 40.14 years, 77% concealed their sexual orientation from their HCP and approximately half had not disclosed to their family members, co-workers and friends. Eliason and Schope (2001) surveyed 88 GLB individuals with a mean age of 42. The disclosure rates to significant others were examined and compared with the type of disclosure to the HCP. Eliason and Schope
(2001) described active disclosures as verbally communicating their sexual orientation to the HCP and passive disclosures revealing in written forms or by mentioning a partner. Active disclosures were more likely to be out to mothers, fathers and supervisors than passive or non-disclosers. They found that overall, women disclose more than men.

Steele et al. (2006) point out that the failure to disclose to the HCP can result in not receiving appropriate care. Brotman et al. (2002) writes that “it has been documented that physical health is also directly affected by hiding one’s sexual orientation” (p. 6). Lesbian women who concealed their sexual identity were found to be more isolated and have a decrease in one’s self esteem. Jordan and Deluty (1998) conducted a survey questionnaire with 499 participants about their level of disclosure and social support. These researchers found a significant association between greater self-esteem and affect with less anxiety when disclosure of one’s sexual orientation is increased. The next section will outline what is known about health care service use by midlife and older gay men.

2.15 Use of Health Care Services

Due to the cumulative effects of years of delaying health care, GLBT individuals often underutilize preventive and other health care resources that could potentially improve their health and well-being (Jillson, 2002). Blando (2001) refers to the invisible status that many gay and lesbian elders possess in society as being “twice hidden” (p. 87). Elder gay and lesbian adults are invisible due to their age and minority status (Blando, 2001). Therefore, researchers believe that there are underlying social factors that affect health care utilization for older gay men. As described by Jillson (2002)
an understanding of access issues for LGBT people, as well as other underserved populations requires an examination of the more subtle aspects of access, and the complexity underlying the societal factors related to it. (p. 154)

Dean et al (2000) believe that it is the “social conditions” that have an impact on “poor access to care” (p.103). Furthermore, the Gay and Lesbian Medical Association (GLMA, 2001) discuss that the barriers to utilization of health care services for GLBT people results in “delaying seeking treatment for acute health conditions or exacerbation of chronic conditions” (p. 49).

The definition of utilization of health care services can best be provided by Mezey (2004) when he states that “utilization is an essential element of measurement of access” (p. 3). Researchers note that the barriers to health care utilization for GLBT individuals are significantly increased especially for gay men of racial and ethnic minority status (Jillson, 2002). Those with low income, of color, older, and who live in nonurban geographical areas have been found to delay health treatments, and to lack regular checkups (GLMA, 2001; Jillson, 2002). Twenty-two percent of older adults with lower incomes report having unmet health needs as compared to 2.5% of middle or higher income older adults. Approximately 18% of Latino/Latina older adults with lower socioeconomic status (SES) have unmet health needs as compared to 8% for those Latino/Latina’s in middle and upper income levels (Hooymann & Kiyak, 2005). Additionally, Blacks compared to Whites face lower SES status along with increased racism, discrimination and poverty. They are more likely to live in neighborhoods with
higher crime, substandard housing and to have inadequate access to quality health care (Copeland, 2005).

Andersen and Newman (1973) measure access through the actual use of services. Little is known about the actual utilization rates of health care services among midlife and older GLBT adults because few national surveys include questions about a person’s sexual orientation identity (Jillson, 2002). Congress has not included federal funding for studies that focus on GLBT midlife and older adult health. In addition to the lack of funding, there are methodological obstacles. Many researchers have discussed the difficulty in recruiting older gay and lesbian adults which is found to be more difficult because many conceal their identity and thus remain invisible to researchers (Cahill, et al., 2000). Silvestre (2003) argues that public health researchers need to consider how LGBT individuals with particular diseases access health care. The Gay and Lesbian Medical Association (GLMA) and the center for LGBT Health at Columbia University collaborated on a white paper that outlined the health concerns and needs of lesbian, gay, bisexual and transgender individuals. In this white paper, the authors summarize the status of GLBT health and recommended improving GLBT persons’ access to health care to increase health and well-being acknowledging the need for more advanced methodological based research.

There are no studies that have explored utilization of health care services by midlife and older gay men. In fact, there are very few studies that have looked at utilization rates for gay, lesbian, bisexual, or transgendered individuals of all ages. As noted by Harcourt (2006) most of the studies have not measured “specific health
outcomes” (p. 6). This researcher goes on to state that “to both we need to document the health status of LGBT populations and describe factors that may influence health outcomes in LGBT people” (p. 6).

There are several studies found in the literature that have used the Andersen-Newman model to examine health disparities for older adults in general. For instance, Forbes, Morgan, and Janzen (2006) conducted a study of older rural adults ages 50-64 comparing health care use for those with and without dementia. The researchers found that those with dementia had more unmet health care needs due to lack of health care services use. Kadushin (2004) reviewed the literature on home health care services utilization for older adults using the Andersen-Newman model as the framework for analysis. This scholar found that past studies have looked at service use with home health care needs to determine who is most likely to use those services. These researchers found that those who under utilize services include elderly persons with impairment in activities of daily living (ADL), instrumental activities of daily living (IADL), they live alone, use Medicaid, and have fewer social supports. Strain (1990) used the Andersen-Newman model with a random sample of adults over the age of 60 in Winnipeg, Manitoba to examine health care service use and found that need for care determined physician visits more than enabling factors of age, income, and social supports.

There has only been one study that used the Andersen Model as a conceptual framework examining health care service use for GLBT individuals. Using the National Health Interview Survey, Heck, Sell, and Gorin (2006) were able to compare same-sex couples to opposite-sex couples looking at the utilization indicators proposed by
Andersen and Andersen and Newman (1968, 1973) in the Behavior Model of Health Service Use. The findings from this study revealed that women in same-sex relationships were less likely to have health insurance coverage than were women in heterosexual relationships. Additionally, women in same-sex relationships were more likely to have unmet medical needs because of cost. Interestingly, for gay men, health care access was the same or better than for men who were in opposite-sex relationships. Overall, as the researchers point out, men in general access health care less frequently, and the same-sex coupled men in this study had the same or better health care usage than heterosexual men in relationships. These researchers described factors contributing to better health care use as including the regular use of health services by a health care provider, being open about their sexual orientation, and seeking preventive care. One of the concerns about the conclusions of this study is that as noted by Rosenfeld (1999), 75% of lesbian and gay seniors live alone. Thereby, the study excluded a large portion of the older gay male population who do not have the social supports provided by a partner. Additionally, the researchers failed to include components found within the Andersen-Newman model such as social support networks hypothesized to be important predictors of service use. Heck and colleagues also did not measure any psychosocial stress and individual health coping factors that could have contributed to a better understanding of health services use among their sample. Additionally, the average age of both the gays and lesbians in this study was 35-44 which is not considered to be midlife or older age.

Another important finding these authors observed was that Hispanic respondents overall had less access than respondents from other racial and ethnic groups. Hispanic
adults were less likely to have health insurance. The researchers controlled for health
risks and other demographics that might have explained the differences and indicated that
the use of the Andersen-Newman model is appropriate for use with the GLBT population
to research health usage based on domains found by Andersen to influence usage
outcomes.

Overall, there is a great need for a health care model of service use that considers
the important aspects discussed in this chapter such as income, education, and social
supports. A model that measures the marginalization experienced within the person’s
environment and both directly and indirectly affects health service use and outcomes is
essential to understanding older gay men’s use of health services. The Andersen and
Newman model indicates that health care utilization is influenced by employment status,
education level, age, race/ethnicity, and family and community support and resources.
However, the Andersen and Newman model under emphasizes psychosocial stress
factors. The next section will outline the Andersen-Newman model of health care service
use.

2.16 Theoretical Framework: Andersen-Newman’s Behavioral Model of Health Service
Use and Minority Stress Conceptual Model

The objective of this research study was to understand the barriers and facilitators
to health care utilization in a sample of midlife and older gay men. This study examined
factors associated with midlife and older gay men and their health care service utilization.
Theoretical constructs were drawn from the Andersen and Newman’s Behavioral Model
of Health Service Use (1973) and the Meyer’s (1995, 2003) Minority Stress Conceptual
Model. This section will discuss the theoretical perspectives of the Andersen-Newman’s Behavioral Model of Health Service Use. Additionally, the Minority Stress conceptual model proposed by Meyer (1995, 2003) is discussed which led to a conceptual framework from which health care service use for midlife and older gay men was explored in this study.

2.16.1 Andersen-Newman’s Behavioral Model of Health Service Use

Researchers have not fully explored the association of factors midlife and older gay men bring into a health care situation such as the enabling constructs of having health insurance, adequate income, disclosure to the health care provider, community support and resources, or the extent of social support networks when exploring health care service utilization rates for gay men. A model that takes into consideration these important theoretical aspects which is focused on domains surrounding health and health care behaviors was needed to fully investigate factors associated with health care service utilization. The Andersen and Newman Behavioral Model of Health Service Use (1968, 1973) used in this research study provided this framework. Figure 1 outlines the basic framework for the Andersen and Newman model.
The Andersen-Newman’s Behavioral Model of Health Service Use has been found to be flexible enough to incorporate additional domains of interest. Thereby, it outlines a conceptual model that is relevant for a particular research investigation (Aday & Awe, 1997). The model offers a framework from which to examine an array of possible factors associated with health care service and social service utilization. Andersen (1995) states that the Health Services Utilization Model has been questioned because it did not originally include social networks in the independent variables.
proposed to predict health care usage. Andersen states that “I think the measure of these concepts rightly fit into the social structure component” (p. 3). Social support networks were included as an enabling construct for this study.

Andersen’s Health Service Use Model was introduced in the late 1960’s and outlines a conceptual model for the study of health care utilization (Aday & Awe, 1997). The model draws from important disciplines including sociology, psychology, economics and medicine to outline categories of individual determinants of utilization that aide in predicting health care service usage. In 1964 Andersen tested his model in a nationwide survey of 2,367 families using health and health behavior predictors that were integrated from these various disciplines. The determinants in the study included predisposing, enabling, and need predictors of physician, hospital and dentist services and focused on the characteristics of the population (Aday & Andersen, 1974; Andersen & Newman, 1973). The Predisposing components examined variables that provided the individual the “propensity” to utilize services and included variables which were available prior to the onset of illness and included age, sex, race, ethnicity, and values concerning health and illness. Enabling factors provided the “means” available to individuals that facilitated utilization of services and consisted of resources such as income, insurance coverage and geographical attributes. Wahler and Gabbay (1997) state in their article that education and income are related and both are factors in successful aging for gay men. The U. S. Census bureau reports that higher education obtainment equates to better health, higher incomes and better standards of living into older age. The third category contained the need components such as illness level and was assessed by the “most immediate cause of
health service use.” Furthermore, need was established not just by the perceptions of the individual but included those services recommended after an evaluation by the health care practitioner (Aday & Andersen, 1974).

Aday and Andersen (1974) and Andersen and Newman (1973) further discussed the outcomes to measure utilization rates of health care services. They discussed the actual population pattern or level of utilization within the system to test predictive validity of the individual’s access indicators. These authors further discussed the properties and characteristics of variables used to measure utilization. These variables included type, site, purpose, and the time interval for episodes of illness. The type of utilization included services from hospital, physician, dentist, and pharmacist. The site or place, included physician office, outpatient department, emergency room, community clinic and hospital. Purpose referred to the reason for the health care service utilization including preventive, illness-related, or custodial care. Preventive care was defined as checkups, yearly physicals, immunizations, and those services which prevent or stop illness from happening. Illness-related services were for curative or for stabilization of those on-going chronic or long-term illnesses. For instance, diabetes, heart or lung diseases usually are considered chronic illnesses. Custodial care referred to service needs for nursing home, assisted living, and other care homes for the aged. The time interval category described the amount of contact, volume and possible continuity of service measures for episodes of illness. Overall, the examination of health service utilization provided the conceptual framework from which to analyze factors that prevented or
facilitated access to services. This model also focused on how efficiently and effectively health care services were provided (Aday & Andersen, 1974).

Aday and Awe (1997) noted that Andersen originally sought to test three hypotheses using his health utilization model. These hypotheses tested the relationship of the three main components of predisposing, enabling and need factors of health service utilization. These hypotheses included the amount of health services used by families, and he believed these services would be a direct function of the predisposing and enabling characteristics of the family along with their need for health care. The second hypothesis was that need would be more important than predisposing and enabling factors in the direct use of services. The third hypothesis was that the contribution of each domain would vary based on the type of health care service. Andersen believed that need would be greater for hospital services, predisposing and enabling domains would be higher for dental services, and all domains would increase the understanding of physician services. The results of Andersen’s study supported his hypotheses that predisposing and enabling factors served as the determinants to the amount of health services used by families. Andersen also found evidence that each factor operated and contributed to understanding differences in usage as independent contributions to utilization. Secondly, Andersen found that need predicted more service use than predisposing and enabling factors. He concluded that need was more of a predictor because it was more directly tied to service use. His other finding was that the contribution from each category varied according to the type of service usage and was found true for dental usage and physicians.
but not for hospital usage. He also found that all of the components contributed to the physician’s services.

2.16.1.2 Mutable Variables within the Aday and Andersen Access Framework

The goal of using the Andersen-Newman’s Behavioral Model of Health Service Use is to analyze those constructs found to be amenable to change within two components of the expanded model of the original Andersen model. Aday and Andersen (1974) expanded the Andersen-Newman model and discussed those variables that were mutable versus immutable within these components. Mutable variables were those constructs that were more susceptible to change. They argue that constructs themselves might be stable but the environment surrounding the construct could change. The focus on mutable variables found to influence utilization are an important aspect to policy makers, program planners and health care service providers as a way to better focus on areas of needed change in order to achieve higher utilization rates and to increase equitable, effective, and efficient use of services. The goal is to bring about better health and well-being. Mutable domains within the Aday and Andersen Access Framework included enabling constructs such as health insurance coverage, income, social support networks, and perceived community support and resources believed to be mutable. For this research investigation, disclosure to the health care service provider was included as a mutable enabler to service use for the population of this study. Researchers have discussed that many times gay and lesbian adults do not disclose their sexual orientation to the health care provider because of shame and embarrassment (Brotman, et al., 2003; Drescher, 2002; Cahill, et al., 2000).
In this research study, psychosocial stress factors, believed to affect midlife and older gay men who have been marginalized, are included within Andersen-Newman’s Behavioral Model of Health Service Use. As discussed by researchers in the literature, and discussed elsewhere in this study, older gay men have grown up in a society that has marginalized their existence within society. Psychosocial stress constructs such as stigma, discrimination, and internalized homophobia are not directly included in the Andersen-Newman’s Behavioral Model of Health Service Use. However, researchers (Meyer, 1995; Meyer 2003; Meyer, Schwartz, & Frost, 2008) believe that stress and anxiety created by these constructs might also influence health care service use (Andersen, 1995; Hooyman & Kiyak, 2005; Meyer, 1995, Meyer, 2003). Researchers have discussed the psychological fear of discrimination in using health care services (Sharma, 2006; Waldo, 1999; Dean, et al., 2000; Jillson, 2002; McGarry, et al., 2002; Butler, 2004; van Dam, et al., 2001; Drescher, 2002; Cahill, et al., 2000; Brotman, et al., 2003). The inclusion of these psychosocial stress factors, which have not been included in previous research using the Andersen-Newman’s Behavioral Model of Health Service Use, could potentially strengthen and increase the framework’s applicability not only to midlife and older gay persons but also possibly to other marginalized groups. The next section will discuss the direct effect of psychosocial stress on older gay men, and why the Minority Stress Conceptual framework (Meyer, 1995, 2003) strengthens the conceptual perspective that was used to guide this research.
2.16.2 Minority Stress Conceptual Model

Meyer (1995, 2003) based his Minority Stress Conceptual Model on the theory that GLBT individuals live in a heterosexist society which produces chronic stress because of the effects of stigma, discrimination, and internalized homophobia. See Figure 2 that outlines the Meyer’s conceptual model for minority stress.

Figure 2: Meyer Minority Stress Process among Lesbian, Gay, and Bisexual Populations (Meyer, 2003, p. 679).
Meyer et al. (2008) argues that an important step in researching patterns of mental health outcomes should include stress indicators. The basis of Meyer’s theory stems from the Sociological Paradigm outlining a causal model of social structure. In this model environment and the mental health outcomes are at opposite ends of one another with stress and coping mechanisms mediating health outcomes. Meyer (2003) stated:

The foundation of or a model of minority stress is not found in one theory, nor is the term minority stress commonly used. Rather, a minority stress model is inferred from several sociological and social psychological theories. (p. 675)

Meyer (1995) explored minority stress and its effects on psychological distress for a sample of 741 gay men from New York City. He conceptualized minority stressors as internalized homophobia, stigma, and discrimination. He believed that chronic stress potentially could affect gay men in what he called a “heterosexist society” (p.38). His concluding results from the study were that each of the three stress factors had “a significant independent association with a variety of mental health measures” (p.49). He also found that those who experienced high levels of minority stress were three to four times more likely to also suffer from high levels of distress. In addition, Meyer et al. (2008) recently operationalized the major constructs underlying this model and they demonstrated excellent reliability and validity of these constructs. By applying Meyer’s (1995, 2003) conception of the Minority Stress Conceptual framework in this study I expand the knowledge of this theory by applying it to physical health services as well as mental health service use.
In later research, Meyer et al. (2008) focused on Social Stress theory concentrating on social conditions as the cause of stress for many marginalized social groups that often times results in disease. These authors proposed that minorities experienced more overall stress when stress associated with prejudice was included. Thereby, those who are of a minority status are at higher risks for health disparities. Social stresses can lead to increases in physical and psychological illnesses. Meyer et al. (2008) reported that minority stress groups typically include individuals of lower socioeconomic status (SES), gender, sexual orientation, and race/ethnicity. One’s social status facilitates the amount of stress one experiences and has an effect on physiological and psychological health. Meyer et al. (2008) believed that to study health outcomes for marginalized groups, such as midlife and older gay men, stress and coping factors must be included with measures of social structure and disease.

Because midlife and older gay men are found to be at a disadvantage within society, researchers need to explore stressors and individual health coping strategies. For this research, I examined health service use among midlife and older gay men. In addition, I analyzed whether coping strategies used by this population were found to influence health status including service use as a result of their disadvantaged group status. Although some researchers have applied the Andersen-Newman’s Behavioral Model of Health Service Use with diverse populations, I have included aspects of Meyer’s conceptual model of minority stress for this study because this model has consistently focused on the main stressors of stigma, discrimination, and internalized homophobia that especially are relevant to service use among a distinctly marginalized
population (Meyer, 1995). The next section will discuss the research methods used for this study that integrates Meyer’s (1995, 2003) Minority Stress Conceptual Model along with the Andersen-Newman’s Behavioral Model of Health Service Use. By integrating these models I strengthened the attention to factors related to stigma, discrimination, and internalized homophobia, and individual health coping skills that are especially relevant to service use among a distinctly marginalized population, specifically, midlife and older gay men.
Chapter 3: Data and Methods

3.1 Planned Analysis

This study explored the enabling and need factors associated with health care utilization. Additionally, psychosocial stress and individual health coping factors were examined to better understand their influence on health care and social service utilization. It was hypothesized that stigma, discrimination, and internalized homophobia would have a significant influence on the use of physical and mental health care service use. This study sought to identify those variables that have a significant influence on the lack of service use for midlife and older gay men.

In the following sections the study design and justification for the project, sampling strategy, sample size determination, procedures, data collection, instrumentation, and dependent and independent variables are discussed. Human Subjects Review Board Approval was received from Ohio State University and is found in Appendix A.

3.2 Significance and Justification of the Research Project

Understanding the enabling, psychosocial stress, and individual health coping factors found to be associated with health status and utilization rates is important to make
policy and intervention changes to increase the health and well-being of midlife and older gay men through increased health service use. This investigation informs researchers, program developers, and practitioners of the specific needs among this group of men. The more we understand about the factors that affect health care utilization among midlife and older gay men the better we can improve access to health care services for this population. This information also can educate the service providers and inform community agencies and government policy makers responsible for increasing GLBT health security with adequate and timely health care service use. Healthy aging includes having access to health care services where utilization of those services is in an environment where safe, complete and open communication is exchanged between the health care provider and patient whether it is for preventive health care or services for acute or chronic diseases and illnesses. The next section will discuss the study design used for this dissertation.

3.3 Study Design

A cross-sectional study design was used. The study employed the use of a web based survey questionnaire. There is not a lot known about the way in which these independent variables interact with the dependent variables for this population, and there is difficulty in accessing this hidden population in order to conduct a true experiment. Therefore, the study design addresses these two points. Although the option of using a paper questionnaire was offered; no participant requested this option. This researcher offered the paper version in order to reduce the potential bias from self-selection of exposure or non-exposure due to socioeconomic status, fear of disclosure, geographical
location, ability level or income, all of which could affect access to a computer. The research design allowed for analysis of the relational and associational variables of enabling, psychosocial stress, and individual health coping factors surrounding the health status including utilization of services. The use of a cross sectional design was employed because manipulation of the independent variables by the researcher, or the assignment of subjects to different treatments was not feasible. The research design allowed the investigator to examine levels of the independent and dependent variables chosen by the respondents within their own natural setting.

3.4 Sampling Strategy

Several gay studies have secured samples within larger metropolitan areas taken from gay bars and clubs with over representation (Christian & Keefe, 1997). The sampling approach for this study did not rely upon samples taken from these very large metropolitan areas where gay men have been oversampled in past research studies. Instead, it included gay men who lived in a mixture of smaller metropolitan cities and across geographically diverse areas of the United States, yielding a more diverse sample. As researchers note, the older GLBT population is hidden and hard to identify for research (Blando, 2001). Therefore, Corliss, Cochran and Mays (2008) make an argument that those researchers who sample “as widely as possible from a broadly defined population are less likely to suffer from selection bias” (p.138). They also suggest targeting individuals based on the research questions. One of the strengths of this study is that it samples individuals who identify as midlife or older gay men from a broadly defined population instead of just in gay Mecca’s such as New York and San
Francisco. This study moves into geographical areas where we don’t have a lot of prior research on health care access.

A multistage cluster sampling strategy was used to ensure that a diverse sample could be gathered from across geographical areas for this study, and the participants were selected using a purposive sampling strategy given the lack of a complete sampling frame from which a random sample of all midlife and older gay men could be obtained. The criteria for the sample of individuals included identifying as a gay man 45 and older. There were three sexual identity questions used to address validity and qualify an individual for the study. These three separate questions asked about the individual’s sexual attractions, sexual behaviors, and sexual identity where affirming all three as towards men qualified the individual to be a part of the study which is discussed by researchers as important identifiers to a gay identity (Dean, et al., 2000). Dean et al. (2000) defines the importance of measuring all three aspects to one’s sexual orientation:

Lesbian, gay, and bisexual (LGB) people are defined by their sexual orientation, a definition that is complex and variable. Throughout history and among cultures the definition of sexual orientation shifts and changes. While sexual orientation is not easily defined, a generally accepted definition of an LGB person is one with an orientation toward people of the same gender in sexual behavior, affection, or attraction, and/or self-identity as gay/lesbian or bisexual. (p. 102)

The inaccessibility of a complete sampling frame precluded obtaining a nationally representative sample of gay men and did not allow this investigator to determine the response rate. Instead, midlife and older gay men were solicited for participation for this
study through gay choruses and Prime Timers groups that exist in almost every state. Gay choruses and Prime Timers groups are conveniently organized, with available contacts from which a sample was selected that represented midlife and older gay men from the Northeastern, Midwest, North Central, Northwest, Southwestern, Southeastern, and Southern regions of the United States.

The sampling frame consisted of all the gay men’s choruses and Prime Timers groups within the United States. Many chorus and Prime Timer group memberships have a diverse group of older gay men who participate in these activities coming from all walks of life. The Prime Timers group was founded in 1987, and there are 60 Prime Timers chapters within the United States (Prime Timers World Wide, 2008). There are a total of 147 gay, lesbian, mixed and youth choirs of the Gay and Lesbian Association of Choruses (GALA choruses, 2008) with 69 choruses that are strictly made up of gay men and located in the U. S. GALA is an international association of GLBT choruses mostly concentrated in the United States and founded in 1982. It is estimated that there are approximately 68 members of each chorus, for a total of over 4,692 vocalists. The number of members who are 45 and older was not known.

Snowball sampling was used to obtain a sample of non-group respondents using referrals from choir and Prime Timer group members. This was initiated to secure potential participants who were not as involved in groups, and who were not as included in the community. The use of snowball sampling was used to gain access to participants who are of the oldest age group and who potentially were more isolated within the community. These older men are known for hiding their sexual identity and avoiding
anything that disclosed their sexual identities. The use of snowball sampling to reach these hidden gay men was used to broaden and deepen the sample of older gay men. Each chorus and Prime Timers group was asked to recruit midlife and older gay male participates for the study. The group members were asked to approach individuals that were the oldest and least active members of the gay community to solicit their willingness to participate in this study giving them the Survey URL web address.

3.5 Sample Size

This study includes a sample size of 260 respondents. The researcher chose to recruit these individuals from thirteen states within cities which have not usually been included in GLBT studies. Respondents were chosen from seven choruses and eight Prime Timers Groups within 15 cities. In the Northeastern region the states of Massachusetts and Connecticut were included. In the Midwest region Ohio, Oklahoma, Missouri and Pennsylvania were included. The Southeastern region was composed of North Carolina while the North Central region included Michigan and Minnesota. The Southwestern region was comprised of California, and the Northwestern region included Washington and Oregon. The Southern region was represented by Texas.

The U. S. Department of Health and Human Services (2008) provides a list of Medically Underserved Areas (MUA) by county. The researcher chose cities within counties using the United States Federal Government’s medically underserved area score for the county including the city of the groups included from the sampling frame within each region. The United States Federal Government determines each counties health professional shortage need resulting in scores ranging from 0 indicating highest health
professional shortage to 100 indicating lowest shortage as well as, the need area for primary medical care, dental or mental health providers. The average MUA score for all sixteen counties included in this study is 55.05. Mid size metropolitan cities within the counties, having scores that ranged within 10 points plus or minus the average of all MUA scores of these cities were chosen for this study. The counties that were included for this study ranged from 45.05 to 65.05.

The following average county MUA scores were used to determine available health practitioner resources for that particular city included in this sampling. These county, city, state, and MUA average score were: Franklin County, Columbus, Ohio 61.60; Oakland County, Royal Oak and Ferndale, Michigan 55.00; Hennepin County, Minneapolis, Minnesota 55.40; Multnonah County, Portland, Oregon 54.40; Suffolk, County, Boston, Massachusetts 58.80; Allegheny County, Pittsburg, Pennsylvania 61.30; Mecklenburg County, Charlotte, North Carolina 47.90; Hartford County, Manchester, Connecticut 50.47; Hamilton County, Cincinnati, Ohio 56.72; Guilford County, Greensboro, North Carolina 54.06; King County, Seattle, Washington 55.08; Oklahoma County, Oklahoma City, Oklahoma 52.92; Cuyahoga County, Cleveland, Ohio 50.89; Travis County, Austin, Texas 56.80; San Diego County, and San Diego, California 54.44. From these choruses and Prime Timers groups the researcher sought to obtain 13 individuals from each group.

This researcher considered the statistical power analysis, defined here as the probability of discovering a statistical significance when one existed (Hair, Anderson, Tatham, & Black, 1998). There were 15 predictors with a desired stated power level of
.80; the sample size was predominately determined by the effect size implemented when using a true random sample. To answer research question four, whether those who disclosed their sexual orientation to their health care provider used more services, the use of an independent t-test with a 95% confidence level was used with a resulting .05 alpha level. Research questions one through three, and five, specifically exploring influences on physical health visits required the use of linear regression, and mental health visits required the use of a multiple logistic regression analysis. Therefore, the smaller the effect size the larger the sample size needed to give an optimum level of power. The alpha and beta error calculations determined that at least a 138 sample size was needed for an effect size of .16 (Cohen, Cohen, West, & Aiken, 2003).

In addition, this researcher examined the confidence interval to further determine the needed sample size. A larger confidence interval assured that the entire population was included in the results obtained from this study. Additional factors were considered because this population is not a homogeneous group (Christian & Keefe, 1997). The variances in the population could be larger, especially in older adult populations where we see more heterogeneity for older adults. Therefore, there was a need to consider a much larger sample size to strengthen the analysis which was used in this study to answer research question five related to determining if enablers or psychosocial stressors were more of an influence on health status and physical health visits.

The use of linear regression analysis required a careful consideration of non-random variation and homogeneity in determining the sample size, along with model size, departures from normality, reliability, linearity, and homoscedasticity. Since this
was a non-probability sampling strategy, the researcher followed the guidelines that a minimum of 200 and an optimal goal of 250 participants were needed from the sampling frame in order to give the largest sample size as possible and to approach optimal validity of the study. The considerations for the size of the sample included the strength of the relations among the variables, reliability, distribution, and size of the variables.

3.6 Procedures

There were a total of 15 choruses and Prime Timers chapters from which 260 individuals were solicited for this study. The researcher contacted the official representatives for each choir and Prime Timers chapter by letter, which included a participant confirmation letter of participation. Both documents are included in Appendix B and C. The letter asked for distribution of the study information to group members to complete the survey. Additionally, group members were encouraged to distribute the study information to non-group members who did not belong to the groups. The groups received a donation of $50.00 to their organization for their help in disseminating the study information to members. The letter stated that the study had received human subject approval. This letter was followed by an email to the group leaders attaching the survey URL address for the online survey. The initial letter was accompanied by an agreement to participate form to be signed and returned. The agreement form was returned using a self addressed stamped envelope acknowledging receipt of the agreement letter and detailing that their group would be receiving $50.00 for their participation.
Dillman’s Total Design Method (Dillman, 1978) was used to improve survey responses in the following ways: (1) Reduced costs to the respondent by making the task appear brief, eliminating direct monetary cost, chance of embarrassment, and the mental effort required to complete the questionnaire through the use of an Internet survey. This was particularly relevant to this study where researchers have noted that disclosure of one’s sexual orientation has been found to increase service use (Brotman, et al., 2003; Drescher, 2002; Cahill, et al., 2000). (2) Rewarded the respondent by showing positive regard, written and verbal appreciation, using a consultative approach, supporting values of the respondent, tangible rewards offered, and making the questionnaire interesting. (3) Established trust by providing a token of appreciation by donating to the chorus or Prime Timers group.

3.7 Data Collection

The data collection time frame was from February 13, 2009 until May 15, 2009. Using Dillman’s Total Design Method (Dillman, 1978) as a design guideline for a web based survey, this study included using a multiple contact strategy like the regular mail survey, personalization of all email contacts prior to survey data collection using brief invitations, and initial questions on the questionnaire that were simple but interesting. This researcher introduced the web survey using a welcome screen that was motivational, emphasizing the ease of response, instructing about how to proceed to the survey, and presenting each question in a conventional format similar to that normally used on paper.
3.8 Instrumentation

The survey questionnaire was developed online through http://www.surveyMonkey.com using the questionnaire included in Appendix D. Each member of the chorus or Prime Timer group within each city was directed to their group's own personalized survey copy and was posted online. This allowed the researcher to control the number from each group and participants obtained from snowball sampling who were non-group members. The beginning of the survey started with a screen that discussed consent, purpose of study, procedures, risks, benefits, privacy, confidentiality and contact information for this researcher. The respondent was asked to either click on continue with the survey or end the session. If the participant continued the survey questionnaire began. If the participant clicked on end session a final screen popped up thanking the individual for their time. The results of the survey were downloaded individually and in aggregate totals on the researcher’s password protected computer. There were no identifiers attached. Once all the data were downloaded from SurveyMonkey.com, the data were deleted from the SurveyMonkey.com web site. SPSS statistical software was used for data analyses.

3.9 Selection of Variables - Dependent and Independent Variables

The variables included in this research study were drawn from the literature surrounding health care utilization and previous research on the effects of psychosocial stress and individual health coping for gay men. The list of included variables considered
for measurement follows the conceptual models of the Andersen-Newman’s Behavioral Model of Health Service Use (1973) and Meyer’s Minority Stress conceptual model (Meyer, 1995). Figure 3 outlines the conceptual model for this study.

Figure 3: Conceptual Framework: Model of Health Care and Social Service Use for Midlife and Older Gay Men
The identified constructs deemed to be important for this research included enabling constructs of support from friends and relatives, community support and resources, income, health care insurance, and education. Additionally, the need variables included the overall assessment of physical health and mental health distress, were examined with the number of health care and social service visits per year. The constructs measured for psychosocial stress included stigma, discrimination and internalized homophobia. The individual health coping variables of resiliency and having an internal health locus of control beliefs towards health outcomes were examined along with need and health status variables. The survey questionnaire consisted of 91 questions and is located in Appendix D. The researcher obtained prior approval to use the instruments included in this study from the appropriate scholars.

This research study sought to answer the research questions one through three and research question five using regression analysis to explore which enabling, psychosocial stressors and individual health coping variables influence physical and mental health status for midlife and older gay men. Two independent sample t-tests were conducted to explore research question four asking if disclosure of sexual orientation is a significant factor in seeking physical and mental health services.

3.9.1 Independent Variable – Community Resources and Support

This writer developed a scale, the GLBT Community Resource and Support Scale to measure perceived community resources and support. This investigator developed and tested the instrument to measure perceived community support from both mainstream and GLBT focused service providers. Attention was given to make sure that all elements of
the construct were represented in the scale items used. The scale consists of six items that were tested using principle component factor analysis that resulted in factor loadings on two measured domains with eigenvalues greater than one explaining 61.947% of the variance. The first domain consisted of four items that measured the perceived resources and support of both the mainstream and GLBT communities. The second domain measures one’s connectedness with the GLBT community through networking with friends and the wider GLBT community. For the community support and resource instrument, face validity was judged by the researcher based on whether the instrument appeared to measure what it was supposed to measure. The items were measured from 1 to 4 with one being never and 4 being often. The six items were summed to arrive at an overall score. The higher the score the more resources and support the individual perceived to be available within their community. The scale had good overall reliability measures in the pilot test with an alpha of .892.

3.9.2 Independent Variable - Social Networks

With a population that is influenced by a large portion of non-kin friendships within their social support networks, the revised Lubben Social Network Scale, which is effective at distinguishing between kinship and friendship networks, was used. Shippy et al. (2004), who specifically addressed social support of gays and lesbians, and Lubben, (1988), referencing older adult social support networks in general, stress that there should be a distinction between family and friendship networks. An important consideration in the use of the revised Lubben Social Network Scale was that earlier instruments included items that measured marital status. Lubben dropped these items from his instrument
because of the “limited variation in the organizational participation and marital status variables among the elderly population” (p. 45). This is an important factor for older gay men who many times are alone and not partnered. In the Shippy et al. (2004) study, 54.3% of the 150 gay men surveyed were single, 35.6% were partnered, 9.1 were divorced or single and .8 being widowed. A little over 65% were alone, 25% were partnered and 9.2 % lived with “others.” Therefore, the Lubben scale is very appropriate as an instrument to measure social networks of midlife and older gay men. Furthermore, Reich, Erdal, and Zautra (1997) emphasized that the Health Locus of Control construct, which was a variable in this study, should examine the co-variance with social network utilization levels. It has been noted that the Lubben Social Support Network scale can be used for such purposes (Lubben, Gironda, & Lee, 2002).

Lubben simplified the scoring of his revised scale and separated more levels of various social interactions with family and friends (Lubben, et al., 2002). The original LSNS scale was revised in order to better distinguish kinship and friendship networks (Lubben, et al., 2002). The use of the revised LSNS-R scale was used for this research because it further defined differences in kinship and friendship networks found to be important for older gay men. In the analysis of revising the scale, two of the questions on the scale were separated into two distinct questions. One question measured social support from relatives, and the other question measured friendship support. The LSNS-R total score used an equally weighted sum of 12 items, six for each of the two domains, and the scores on the revised scale range from 0 to 60 (Lubben, 2008). Higher scores
indicated more support. For this study, the scale was separated to measure friendship and
kinship support separately with scores ranging from 0 to 30 for each.

3.9.3 Independent Variable - Health Insurance

Respondents were asked to indicate all of the type of health insurance coverage they had available to them from a category of 8 item responses which included private health insurance, Medicaid, Medicare, private insurance through domestic partnership, Veteran’s health insurance, no health insurance, or other health insurance.

3.9.4 Independent Variable - Income

Respondents were asked to indicate their total individual income using four categorical ranges for monthly total income which included $400.00 or less per month, $401.00 to $1,200.00 per month, 1,201.00 to $2,000.00, or greater than $2,000.00.

3.9.5 Independent Variable – Education

Respondents were asked to indicate their highest level of education from a range of categories including less than high school, some high school, high school diploma, some college, associated degree, bachelors degree, masters degree, or post graduate.

3.9.6 Independent Variable Internalized Homophobia Scale (RHS)

There have been several instruments developed to measure internalized homophobia. One of the more recent is the Reaction to Internalized Homophobia Scale developed by Ross and Rosser (1996) which consisted of 26 items and included four subscales. Recently, these authors along with a doctoral student have worked on a reduced 8 item scale. The following eight item scale measuring three domains is outlined. The first domain included the personal comfort with homosexuality construct.
It included questions (1) I feel comfortable being a homosexual man; (2) Even if I could change my sexual orientation, I wouldn’t; and (3) Homosexuality is morally acceptable. The second domain construct included public identification as gay. It included the questions (1) I feel comfortable being seen in public with an openly gay person; and (2) I feel comfortable discussing homosexuality in a public setting. The third domain construct included social comfort with gay men. The questions included (1) Obviously effeminate homosexual men make me feel uncomfortable; (2) Social situations with gay men make me feel uncomfortable; and (3) I feel comfortable in gay bars. Ross and Rosser (1996) report internal reliability coefficients of .69, .85, .64, respectively for the three domains of this scale.

Items were rated on a 1-7 scale, with one being strongly disagree and 7 strongly agree. Reverse coding was indicated for those that were positive items, which makes a higher score on an item indicative of higher manifestation of internalized homophobia (IH). The authors stated that these three first-order domain factors had good measurement properties of IH as a second-order factor.

3.9.7 Independent Variable - Stigma Consciousness Scale

The Stigma Consciousness Scale (Pinel, 1999) was used to measure one’s self awareness of stigma. The scale was developed and tested with women, minority individuals, and gays and lesbians. In her initial testing, Pinel found the Cronbach’s alpha to be .81 with one factor that accounted for 74% of the common variance. In a second test the instrument was validated for use with women to determine convergent, discriminant, and construct validity along with test-retest reliability. The instrument was
then reworded to address stigma for gay and lesbian individuals and re-tested. The results indicated generalizability to other populations including its reliability for use with gays and lesbians. The scale consisted of 6 items, and the points measure from 0 for strongly agree to 6 strongly disagree with a midpoint for neither agree nor disagree. The total score was summed to arrive at 0 – 36. The higher scores indicated lower stigma. Waldo (1999) found that out of fear of discrimination many GLBT individuals concealed their sexual identity having negative effects on their health as well as, psychological and other psychosocial domains. Therefore a separate discrimination scale was used to measure those differences between stigma and discrimination in this study.

3.9.8 Independent Variable - Discrimination Scale

Meyer et al. (2008) developed an eight question discrimination instrument, which has been found to have a Cronbach’s alpha of .84, and measured day to day experiences of discrimination based on one’s sexual orientation. The questions were coded as 1=often, 2=some of the time, 3=almost never, and 4=never. The points were summed to arrive at a final score. The items were reversed coded and higher scores indicated more discrimination.

3.9.9 Independent Variable - Resiliency Scale

Resiliency is defined as an individual characteristic that promotes adaptation and reduces stress. It is part of the individual’s personality characteristics (Wagnild & Young, 1993). For this study, the researcher used the 14-Item Resilience Scale (RS-14™) (Wagnild & Young, 1993) which has been reported to produce the same internal consistency as the 25 item scale. The use of the Resilience Scale (RS) developed by Wagnild and Young
(1993) has been found to possess internal consistency throughout several previous studies ranging from .76 to .91. There were believed to be five components that were interrelated and believed to measure the construct of resilience. These five components included self-reliance, meaningfulness, perseverance, equanimity, and existential aloneness. Scores were achieved by totaling all items to arrive at an overall resilience score. The possible scores ranged from 14 to 98 with higher scores reflecting higher resilience (Wagnild, 2003).

3.9.10 Independent Variable - Multidimensional Health Locus of Control Scale (MHLC)

Measuring the internality aspects of health control beliefs for midlife and older gay men is important to further understand if this construct is a significant predictor of health status and health service use. The Multidimensional Health Locus of Control Scale (MHLC) (Wallston, 2008) was designed to measure three dimensions of a health locus of control surrounding health behaviors. They included (1) possessing an internal health locus of control, (2) powerful others locus of control, and (3) chance health locus of control. As discussed by Rosenstock, Strecher, and Becker (1988) the use of the health locus of control is an important variable to examine the individual’s own beliefs about what influences health outcome expectancy. The MHLC scale measures independently the person’s internal and external trait in their approaches to expectancy outcomes in all health situations. The more internality a person possesses the more control they believe they have in general (Reich, et al., 1997).

In their article, Wallston et al. (1978) discussed the development and validation of the Multidimensional Health Locus of Control instrument. This instrument was modeled
after Levenson’s original work with internal locus of control (Levenson, 1973). Wallston et al. (1978) found that each of the MHLC subscales correlated significantly and positively with the instrument from which it was modeled by Levenson.

Wallston (2005) stated that generally, in many studies, the scales were “moderately reliable with Cronbach alphas ranging from .60-.75” (p.624). The test retest stability coefficient ranged from .60 to .70. The general health focused version of the instrument has two equivalent forms, A and B, each consisting of 3 separate domains with 6 scale items for each. The three domains included measures of internality, powerful others externality, and chance or fate externality. There is a third form, C, which measures specific illness incidents with the locus of control. In this research the Form A to measure internality focused behaviors was used. The scores for each of the subscales on form A were totaled. For Internal (I) included items 1, 6, 8, 12, 13, and 17. For Chance (C) included items 2, 4, 9, 11, 15, and 16. For Power others (P) included items 3, 5, 7, 10, 14, and 18. All three subscale scores ranged from 6-36. Item score of 1 was equal to strongly disagree and 6 was equal to strongly agree. There was no item reversal before summing the subscales, and higher scores indicated more internality, externality or chance on its respective subscale. There was no grand total score on the MHLC instrument (Wallston, 2008). Each domain is independent and separate. For this study, the investigator was interested in the degree of internal health locus of control beliefs of the participants.
3.9.11 Dependent Variable - Physical and Mental Health Visits

The questions for use of services was assessed by asking respondents to indicate the number of health care service visits for physical health and mental health services they used for the past year (Aday & Awe, 1997). The participants indicated the number of visits in the past year received for each of the following health care services: Physical exams and visits related to diagnosing and/or follow-up to chronic conditions and mental health counseling. The frequency of health visit scores was summed to assess usage rates for physical and mental health use. Other researchers have summed the scores of these questions to arrive at one total frequency score (Bergeron & Senn, 2003).

3.9.12 Dependent Variable - Self Assessment of Physical Health

It has been found by researchers that when older adults are asked to self rate their physical health status using the scale of excellent, very good, good, fair or poor, the single indicator has been found to be very valid and reliable (Leventhal, Amora, & Howard, 2006; Idler & Benyamini, 1997, Idler, Leventhal, McLaughlin, & Leventhal, 2004). Idler and colleagues (2004) found in their study that individuals who rated their health as fair to poor were able to predict their mortality over the brief five month and extended 20 year time frame. This was found even after age and medical status at time of assessment was controlled for in the study. For this study, a self assessment of health question was assessed. Respondents were asked, in general, would you say your
health is: excellent, very good, good, fair, poor with five being excellent where one indicated poor health and five indicated excellent health.

3.9.13 Dependent Variable - Self Assessment of Mental Health

For this study, to measure mental health status, the use of the CONOR Mental Health Index (CONOR-MHI) was used. The CONOR-MHI was developed by several groups including the Norwegian Institute of Public Health and four universities within Norway (Sogaard, Bjelland, Tell, & Roysamb, 2003). The CONOR-MHI measures psychological distress and consist of 7 items. These research groups conducted preliminary research using cases from two data sets to test the validity of the CONOR-MHI. The Oslo Health Study (HUBRO) and the Nord-Trondelay Health Study (HUNT). The researchers compared results of the CONOR-MHI with two previously validated instruments. These instruments were the Hospital Anxiety and Depression Scale (HADS) and the Hopkins Symptom Check List (HSCL-10). The Hopkins Symptom Check List (HSCL) is a widely used scale that is self-administered and measures psychological distress in population surveys. The Hospital Anxiety and Depression Scale, also self-administered, consist of seven questions for each of the two domains for a total of 14 items. The CONOR-MHI was highly correlated with scores on total HADS and HSCL-10, $r > 0.7$, corrected for attenuation $r > 0.8$. Participants within the data sets were ages 30, 40, 45, 59-60 and 75-76. The internal consistency of the CONOR-MHI was found to be high in tests performed with a Cronbach Alpha of $> 0.8$ (Sogaard, et al., 2003). Therefore, it would be valid with older adults. Each question has four answer categories
ranging from “no” to “very” that result in values of 1 – 4. The total score would result in a range from 7 to 28. The higher the total score the more mental health distress indicated.

3.10 Data Analysis

3.10.1 Multiple Logistic Regression to Determine Predictors of Mental Health Visits

The sample data collected \((n=260)\) was examined and more than half of the sample 76.2\% \((n=198)\) did not indicate any use of mental health services in the past year. Of the sample, only 23.8\% \((n=62)\) reported mental health visits. Therefore, the mental health visit score was re-coded where 0 is no mental health visits in the past year and 1 equals mental health visits. Because the mental health visit dependent variable was re-coded to a dichotomous variable, with a lack of variability, the use of a logistic regression analysis was used to examine the independent variable constructs related to mental health visits.

3.10.2 Use of Multiple (ordinary least squares) Linear Regression to Determine Predictors of Physical Health Visits

Linear regression analysis, a method dealing with a straight-line relationship between variables and used to predict values, was used to explore predictors of physical health visits. The regression was conducted entering all predictors using stepwise entry. The entire sample collected \((n=260)\) was used in conducting this analysis. The data were reviewed for any missing data, and no missing data were found. SPSS was used to examine the location of distribution, skewness and kurtosis of the data variables which are detailed in Table 1. There were no skew indexes that were greater than 3.0 or kurtosis index greater than 10 (Kline, 2005).
Table 1
*Scale Variables Location of Distribution for Midlife and Older Gay Men (N=260)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Sd. Dev</th>
<th>Variance</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support – Friends</td>
<td>19.13</td>
<td>5.245</td>
<td>27.510</td>
<td>-.224</td>
<td>-.325</td>
</tr>
<tr>
<td>Support – Relatives</td>
<td>14.51</td>
<td>6.022</td>
<td>36.259</td>
<td>-.233</td>
<td>-.343</td>
</tr>
<tr>
<td>Community Support</td>
<td>17.71</td>
<td>3.063</td>
<td>9.381</td>
<td>-.086</td>
<td>-.637</td>
</tr>
<tr>
<td>Sigma</td>
<td>16.92</td>
<td>6.730</td>
<td>45.291</td>
<td>-.110</td>
<td>-.564</td>
</tr>
<tr>
<td>Discrimination</td>
<td>15.33</td>
<td>4.906</td>
<td>24.066</td>
<td>.454</td>
<td>-.355</td>
</tr>
<tr>
<td>Internalized Homo</td>
<td>19.02</td>
<td>7.400</td>
<td>54.764</td>
<td>.891</td>
<td>.510</td>
</tr>
<tr>
<td>Resiliency</td>
<td>86.37</td>
<td>9.624</td>
<td>92.612</td>
<td>-.955</td>
<td>.129</td>
</tr>
<tr>
<td>IHLOC</td>
<td>24.49</td>
<td>3.367</td>
<td>11.340</td>
<td>.564</td>
<td>-.263</td>
</tr>
<tr>
<td>Mental Hlth Distress</td>
<td>12.98</td>
<td>4.162</td>
<td>17.320</td>
<td>-.975</td>
<td>.715</td>
</tr>
<tr>
<td>Physical Hlth Status</td>
<td>3.61</td>
<td>.938</td>
<td>.879</td>
<td>-.171</td>
<td>-.836</td>
</tr>
<tr>
<td>Mental Hlth Vists</td>
<td>.24</td>
<td>.427</td>
<td>.182</td>
<td>1.235</td>
<td>-.480</td>
</tr>
<tr>
<td>Income</td>
<td>3.63</td>
<td>.666</td>
<td>.443</td>
<td>1.542</td>
<td>.976</td>
</tr>
</tbody>
</table>

Box plots were produced for each variable revealing some variables with outliers found within the data. For the support from friends’ variable one case was coded 0 and was changed to the next highest category score of 4. Community Support scores ranging from 0 to 12, a total of 11 cases, were re-coded to a score of 12 creating a new lowest score of 12. Internality scores greater than 32, a total of 7 cases, were reduced to 32 creating the new highest score. The scores lower than 19, a total of 5 cases, were increased to create the new lowest score of 19. The resiliency scores of 0 to 63, of which there were five cases, were each increased to create the lowest score of 63. Stigma had one case with a score of 0 which was increased to 2 creating the new lowest score of 2. Seven cases had physical health scores of 1 that were increased to 2 creating the new lowest score. Income scores of 0 and 1 were re-coded to 2, the new lowest score.

A correlation matrix was examined for multicollinearity examining independent variables having reasonably high Pearson’s coefficients examining other independent...
variables with scores >.60 which might be a cause of concern. There were no correlations greater than .60. Additionally, when running the regressions and looking at collinearity statistics there were no variables with tolerance less than .2 and no variance inflation factors (VIF) that were greater than 3 (O’Brien, 2007).

The stigma scale was re-coded reversing the order of the total score where more indicates more stigma consciousness experienced. The discrimination scale was also re-coded reversing the order of the total score where 4 is more often experiencing discrimination based on sexual orientation. The number of physical health visits variable was sharply skewed. It was decided to standardize physical health visit scores using a z-score for the physical health visits variable to address issues with normality.

3.10.3 Use of Independent Sample t-tests to test for significance of Disclosure to Health Care Service Provider on both Physical and Mental Health Visits

Researchers have found that those who disclose their sexual orientation to the health care provider utilize health care services more often (Steele, et al., 2006; Brotman, et al., 2002). And, older gay men are more selective about disclosing their sexual orientation than younger gay men (Cahill, et al., 2005). A question asking about disclosure to the physician and mental health counselor was included in this survey. The respondent indicated either “yes” or “no” as to their disclosure to the health care and social service provider. The affirmative was coded one and the negative response zero.

The use of two independent sample t-tests was conducted to examine the influence of disclosure of one’s sexual orientation, and the use of both physical and mental health services. There were only 18 respondents out of 62 who had mental health
visits and indicated not having disclosed their sexual orientation to their mental health provider. Therefore, the use of an independent sample t-test to analyze disclosure and mental health visits was performed for this study on just the 62 cases indicating use of mental health services. The full sample of 260 was used to conduct the independent sample t-test for physical health visits.

3.10.4 Decision to Reduce Number of Items on the Stigma Consciousness Scale

During pilot testing, the stigma scale included 10 items with a reliability coefficient of .258. Items 31 and 33 were removed with the lowest coefficients that increased the alpha to .569. Item 32 was eliminated and the reliability coefficient with 7 items was .597. Item 27 was eliminated increasing the alpha to .609 for six items of 24, 25, 26, 28, 29, and 30 that were included in this study. Principle component factor analysis of all items indicated factor loadings on two components. Component one consisted of items 24, 25, 28, and 29. Component two consisted of 26 and 30.

3.10.5 Comparison of Group to Non-Group Respondents for Differences

To assess selection bias when recruiting individuals from choir and Prime Timers groups as well as, using snowballing sampling to broaden the sample to include non-group members, this researcher compared the group to non-group respondents. This was analyzed to understand any differences between the collected samples. All variables, including descriptive variables, were included to better understand if any differences in the two groups of individuals were found. The group to non-group comparison on all variables and descriptive statistics found three significant variables with differences which are summarized in Table 2, 3 and 4. The age variable was found to be
significantly different with a mean age of the 202 group members being 58.90, and the 58 non-group members average mean age was 54.91 with the standard deviation of 8.963 for the group members and 8.363 for the non-group members. The significance level was .002 with a t-value of 3.149 with 97.783 degrees of freedom.

Table 2
Independent t-Test for Group/Non-Group Members and Age (N=260)

<table>
<thead>
<tr>
<th>Group Member</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Age</td>
<td>202</td>
<td>58.90</td>
</tr>
</tbody>
</table>

Stigma was found to be significantly different at .036 between groups. The mean for the 202 group members was 16.47 and 18.52 for the 58 non-group members. The Standard deviation for the group members was 6.776 and 6.369 for the non-group members. The t value was -2.131 with 97.152 degrees of freedom. In her research with stigma of marginalized individuals, Pinel (1999) had found that those who experience discrimination have higher stigma consciousness. This is especially true if the person experiences discrimination without support from friends and family and community. Therefore, those who are non-group members may not be as connected to the GLBT community increasing their stigma consciousness.
Table 3
Independent t-Test for Group Member/Non-Group Member and Stigma (n=260)

<table>
<thead>
<tr>
<th></th>
<th>YES N</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>NO</th>
<th>M</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
</table>

Resiliency was found to be statistically significantly different at the .046 level between groups. The mean for the 202 group members was 87.06 and 83.97 for the 58 non-group members. The Standard deviation for the group members was 9.263 and 10.520 for the non-group members. The t value was -2.223 with 84.024 degrees of freedom. Resiliency is thought to be a personality characteristic and is enhanced from support from family and friends (Wagnild, 2003). As described by Wagnild (2003) “it is the ability to bounce back from adversity” (p.43). Friend (1990) discusses that many older gay men have developed high “self-acceptance and psychological adjustment” in order to handle diversity due to their life course marginalization including exposure to discrimination and stigma (p. 108). Older adults in general who continue to be resilient are thought to have strong support from family and friends and practicing health promoting behaviors (Wagnild, 2003). Therefore, the non-group members who are part of this study might differ in having supports within their GLBT community and from friends and family which provide the needed supports.
Table 4
Independent t-Test for Group/Non-Group Member and Resiliency (n=260)

<table>
<thead>
<tr>
<th>Group Member</th>
<th>YES</th>
<th></th>
<th></th>
<th>NO</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Resiliency</td>
<td>202</td>
<td>87.06</td>
<td>9.263</td>
<td>58</td>
<td>83.97</td>
<td>10.520</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>84.024</td>
<td>.046</td>
<td></td>
<td>-2.223</td>
<td>84.024</td>
</tr>
</tbody>
</table>

3.11 Summary

The next section will discuss the results from the analyses. First a discussion about the steps conducted for a pretest of the instrument and data gathering is provided. The change to the stigma scale resulting from pretesting is outlined. The results of the descriptive statistics for the complete sample are detailed by age categories including participant characteristics. Included in these results is the number of physical and mental health visits. The results of bivariate correlations are provided for disclosure to the HCP and the number of physical health visits. The findings from the logistic regression analyses of mental health visits detailing the significant predictors’ of mental health visits are detailed. As well, the linear regression findings of predictors of physical health visits are reported.
Chapter 4: Results

4.1 Pretesting

A pilot study was initiated to test the internal consistency of survey items comprising scales that were included in the survey questionnaire using a single administration of each instrument in the study. Furthermore, the pilot study was used to test the aesthetic and ease of completion of the questionnaire survey. Lancaster, Dodd and Williamson (2004) estimate a minimum of 25 - 30 cases are needed for a pilot study. For this pilot study a total of 25 cases were recruited for the pilot study based on these recommendations. Those cases included in the pilot study were not included in the final sample used for this study. Cronbach Alpha was used as an internal consistency estimate of reliability measurement of the average inter-item correlation of scale items. Correlations of items were analyzed to make sure items measured the same domains. Reliability of scales was calculated during the pilot study and is summarized in Table 5. Those items that did not correlate highly were considered for elimination. Using SPSS software to run Cronbach’s alpha, the CONOR-MH scale had a Cronbach’s Alpha of .903 on 7 items. For Discrimination, the scale items had a reliability of .822 on 8 items. The reliability test for the Internality Health Locus of Control Beliefs scale was .770 on 6 items. The Lubben’s Social Support Network scale measurement just for the friends’ domain was .918 with 6 items, and the Social Support Network measurement just for
relatives’ of 6 items was .864. Resiliency had reliability of .942 on 14 items. The RHI internalized homophobia scale had a reliability of .582 on 8 items.

During this analysis it was decided if item reduction would affect the content validity of the scale items then it would not be reduced. Since internalized homophobia including all three measured domains was an important measurement for this study all 8 items were kept in the full study. Upon completion of data gathering, the reliability alpha was .669 for all 8 items.

Table 5
Pilot Study Instrument Reliability Measures (n=25)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Number of Items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONOR-MH (Mental Health Index)</td>
<td>7</td>
<td>.903</td>
</tr>
<tr>
<td>Discrimination</td>
<td>8</td>
<td>.822</td>
</tr>
<tr>
<td>Internality Health Locus of Control</td>
<td>6</td>
<td>.770</td>
</tr>
<tr>
<td>Social Support Friends</td>
<td>6</td>
<td>.918</td>
</tr>
<tr>
<td>Social Support Relatives</td>
<td>6</td>
<td>.864</td>
</tr>
<tr>
<td>Resiliency</td>
<td>14</td>
<td>.942</td>
</tr>
<tr>
<td>RHI – Internalized Homophobia</td>
<td>8</td>
<td>.582</td>
</tr>
<tr>
<td>Stigma</td>
<td>6</td>
<td>.609**</td>
</tr>
</tbody>
</table>

Note. ** Stigma – Reduced after Principle Component Analysis

4.2 Descriptive Results

4.2.1 Participant Characteristics

Descriptive statistics are reported on the variables in order to describe the population characteristics. Descriptive statistics include measures of location, spread and
skewness using the mean, mode, and medium which were calculated for all
demographical categories included in Table 6. The participants’ demographic
information was broken down into three aging categories including those who are 45 to
64 (N-188, 72.3%), 65 to 74 (N-59, 22.7%), and 75 (N-13, 5%) and older. The average
age for those who were 45 to 64 was 53.62 and totaled 188 participants. Most of the 45
to 64 age group, which was 68%, resided in the Midwest region of the U. S with 40%
residing in the Northwest. For the 65 to 74 age group which totals 59 participants, the
average age was 67.56 and most reside in the Midwest and North Central parts of the U.
S. The 75 and older group had 13 respondents with an average age of 78.15, and they
reside mostly in the Midwest and Northeast.

The racial identity of most respondents was Caucasian and numbered 245 of the
260 sample. Of the sample collected 2.1% of the 45 -64 age group were African
American and 2.7% of the sample identified as Latino which included 1 respondent in the
65 to 74 age group. There was 1 participant each identifying as Pacific Islander, and
Native American making up .5% of the total sample.
Table 6
Participant Demographic Descriptors by Age Cohort (n=260)

<table>
<thead>
<tr>
<th>Variable</th>
<th>45 – 64</th>
<th></th>
<th>65-74</th>
<th></th>
<th>75+</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td>%</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Age (Range 45-85)</td>
<td>188</td>
<td>72.30</td>
<td>59</td>
<td>22.7</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>Mean</td>
<td>53.62</td>
<td>67.56</td>
<td></td>
<td>78.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>53.00</td>
<td>67.00</td>
<td></td>
<td>78.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>46.00</td>
<td>66.00</td>
<td></td>
<td>78.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northwest</td>
<td>40</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwest</td>
<td>7</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>21</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>68</td>
<td>26</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>25</td>
<td>11</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Central</td>
<td>16</td>
<td>14</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southeast</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racial Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>4</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>5</td>
<td>2.7</td>
<td>1</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>174</td>
<td>92.6</td>
<td>58</td>
<td>98.3</td>
<td>13</td>
<td>100.0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retirement/Work Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed Full Time</td>
<td>111</td>
<td>59.0</td>
<td>7</td>
<td>11.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed Part time &lt; 40</td>
<td>14</td>
<td>7.4</td>
<td>11</td>
<td>18.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>14</td>
<td>7.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>33</td>
<td>17.5</td>
<td>40</td>
<td>67.8</td>
<td>13</td>
<td>100.0</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disabled</td>
<td>7</td>
<td>3.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The majority, 59.0% of the 45 to 64 age group, indicated they were employed full time while 17.5% were retired. There was 67.8% of the 65-74 age group identified themselves as retired, which was the largest category for that age group. All 13 or 100% of the 75+ age group were retired. The majority of both 45 to 64 and 65 to 74 age categories lived alone, 46% and 57.6% respectively. Both age categories indicated that they were partnered at slightly lower rates of 47.43% and 32.20% respectively. Of the oldest age category of 75+, slightly less than half, lived alone at 46.2%, while 53.8 or 7 out of 13 respondents indicated being partnered. Table 7 reports on the socioeconomic demographics. Overwhelmingly, the 45 to 64, 65 – 74 and 75+ age categories indicated having a bachelors or higher degree with 75.1, 71.1, and 61.5% respectively. Additionally, the majority, or 78.3% of the 45 to 64 age group, had private health insurance, 4.8% had Medicare, and 3.7% obtained health insurance benefits through domestic partnership benefits. For the 65 to 74 age group, the majority, or 69.5% only had Medicare health insurance, and 11.9% indicated having additional private health
insurance. For the oldest age category, 30.8% indicated they had some form of private health insurance and 46.2% had just Medicare. The majority of the 45 – 64, 65 – 74, and 75 age cohorts, 71.3, 74.6, and 92.3 respectively, indicated individual monthly incomes greater than $2,000.00.
Table 7
Participant Socioeconomic Descriptors by Age Cohort (n=260)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45 – 64</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>_____________________________________</td>
<td>__________</td>
</tr>
<tr>
<td>Age (Range 45-85)</td>
<td>188</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>1</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>4</td>
</tr>
<tr>
<td>Some College</td>
<td>26</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>16</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>60</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>40</td>
</tr>
<tr>
<td>Post Graduate Work</td>
<td>42</td>
</tr>
<tr>
<td>Health Insurance Status</td>
<td></td>
</tr>
<tr>
<td>Private Health Insurance</td>
<td>148</td>
</tr>
<tr>
<td>Medicaid</td>
<td>1</td>
</tr>
<tr>
<td>Medicare</td>
<td>9</td>
</tr>
<tr>
<td>Domestic Partnership Provided Health Insurance</td>
<td>7</td>
</tr>
<tr>
<td>Veteran’s Health Insurance</td>
<td>5</td>
</tr>
<tr>
<td>No Health Insurance</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td>Income (individual Monthly)</td>
<td></td>
</tr>
<tr>
<td>$401.00 – $1,200.00</td>
<td>21</td>
</tr>
<tr>
<td>$1,201.00 – $2,000.00</td>
<td>33</td>
</tr>
<tr>
<td>&gt; $2,000.00</td>
<td>134</td>
</tr>
</tbody>
</table>
Table 8 summarizes the details for the number of physical and mental health chronic conditions indicated by the participants. For the 45 to 64 age category, almost half of the sample report hypertension and high cholesterol at 41.49% and 49.47% respectively which is much larger percentage than the prevalence rate for all men in this age category of 21.5% for hypertension (Whitbourne, 2005) and 19.7% for cholesterol (CureResearch, 2009). For the 65 to 74 age category, 57% indicated having hypertension and 64.41 report high cholesterol which is a much larger percentage than the prevalence rate for all men in this age category of 31.5% for hypertension (Whitbourne, 2005) and 19.2% for cholesterol (CureResearch, 2009). Another category unique to the 65 to 74 age category was arthritis with 40.68% of the sample reporting this condition. This is only slightly higher than the prevalence for all men in this category at 39.5% (Whitbourne, 2005). For the oldest age category of 75 and older, 53.85% report heart disease, 53.85% report hypertension and 76.92% report high cholesterol which is much higher than the prevalence rates nationally for all men in this category, whereas, 39.5% of men in this category indicate heart disease, 27.1% indicate hypertension (Whitbourne, 2005), and 10.1% indicate high cholesterol (CureResearch.com, 2009). This 75+ age cohort also report high rates of arthritis at 53.85% which is higher than the prevalence rate nationally for all men in this age category of 43.8% (Whitbourne, 2005). Another interesting note from Table 8 is that clinical depression and anxiety disorders are higher for both the 45 to 64 and 65 to 74 age cohorts and much lower for the 75+ age cohort.
<table>
<thead>
<tr>
<th>Chronic Condition</th>
<th>45-64 (n=188) Number (%)</th>
<th>65 – 74 (n=59) Number (%)</th>
<th>75+ (n=13) Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Attack</td>
<td>12(6.38)</td>
<td>9(15.25)</td>
<td>2(15.38)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>78(41.49)</td>
<td>34(57.63)</td>
<td>7(53.85)</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>93(49.47)</td>
<td>38(64.41)</td>
<td>10(76.92)</td>
</tr>
<tr>
<td>Mitral Valve Prolapse</td>
<td>13(6.91)</td>
<td>3(5.08)</td>
<td>3(23.08)</td>
</tr>
<tr>
<td>HIV Related Disease</td>
<td>29(15.43)</td>
<td>3(5.08)</td>
<td>1(7.69)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>31(16.49)</td>
<td>16(27.12)</td>
<td>3(23.08)</td>
</tr>
<tr>
<td>Asthma</td>
<td>30(15.96)</td>
<td>6(10.17)</td>
<td>3(23.08)</td>
</tr>
<tr>
<td>Cancer</td>
<td>25(13.30)</td>
<td>14(23.73)</td>
<td>4(30.77)</td>
</tr>
<tr>
<td>Arterial Fibrillation</td>
<td>14(7.45)</td>
<td>10(16.95)</td>
<td>4(30.77)</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>7(3.72)</td>
<td>3(5.08)</td>
<td>2(15.38)</td>
</tr>
<tr>
<td>Arthritis</td>
<td>39(20.74)</td>
<td>24(40.68)</td>
<td>7(53.85)</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>27(14.36)</td>
<td>11(18.64)</td>
<td>5(38.46)</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>21(11.17)</td>
<td>12(20.34)</td>
<td>1(7.69)</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>9(4.79)</td>
<td>4(6.78)</td>
<td>1(7.69)</td>
</tr>
<tr>
<td>Alcohol Dependency</td>
<td>16(8.51)</td>
<td>7(11.86)</td>
<td>1(7.69)</td>
</tr>
<tr>
<td>Substance Dependency</td>
<td>10(5.32)</td>
<td>1(1.69)</td>
<td>2(15.38)</td>
</tr>
<tr>
<td>Clinical Depression</td>
<td>55(29.26)</td>
<td>18(30.51)</td>
<td>2(15.38)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>50(26.60)</td>
<td>12(20.34)</td>
<td>1(7.69)</td>
</tr>
<tr>
<td>Eating Disorder</td>
<td>8(4.26)</td>
<td>5(8.47)</td>
<td>2(15.38)</td>
</tr>
</tbody>
</table>
The total number of physical and mental health visits was grouped by age category in Table 9 and Table 10. The U. S. Census Bureau reports on the average number of physical health visits made by age categories. In their report for the year 2006, the following distributions were reported. For those who are 45 to 64, 16.4% reported no health visits, 44.3% reported 1 to 3 visits per year, and 23.6% reported 4 to 9 visits, and 15.7% reported 10 or more visits per year. For the 65 to 74 age group, 6.7% reported no health visits, 34.6% reported 1 to 3 visits, 36.6% reported 4 to 9 visits and 22.1% reported 10 or more visits per year. For the 75 and older category, 5.3% reported no health visits, 31.5% reported 1 to 3 visits, 35.7% reported 4 to 9 and 27.6% reported 10 or more visits.

From Table 9 below 10.64% of the 45 to 64 age category reported no physical health care visits, 47.34% reported 1 to 3, 32.98% reported 4 to 9, and 9.04% reported 10 or more. For the 65 to 74 age group, 3.39% reported no health visits, 44.07% reported 1 to 3 visits, 38.98% reported 4 to 9, and 13.56% reported 10 or more visits per year. The last category of 75 and over, no respondents reported having no health visits, 46.15% reported 1 to 3 visits, 38.46% reported 4 to 9 visits, and 15.38% reported 10 or more visits per year. The sample for this study, overall, has more health visits than the national average by age category. Additionally, the Census data reported that for males, 22.8% reported no health visits, 46.8% reported 1 to 3 visits, 20% reported 4 to 9 visits and 10.4% of males reported more than 10 visits per year. The sample differs from the national average when it reaches 10 or more visits per year where the sample reports less
than the Census bureau averages for each age category but that is only when it includes both males and females.
Table 9  
*Physical Health Visits Past Year (n=260)*

<table>
<thead>
<tr>
<th>Age Cohort</th>
<th>45 – 64</th>
<th>65 – 74</th>
<th>75+</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>n=188</td>
<td>n=59</td>
<td>n=13</td>
<td>N=260</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>10.64</td>
<td>3.39</td>
<td>8.46</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>25.0</td>
<td>20.34</td>
<td>38.46</td>
<td>24.62</td>
</tr>
<tr>
<td>2</td>
<td>14.36</td>
<td>18.64</td>
<td>7.69</td>
<td>15.0</td>
</tr>
<tr>
<td>3</td>
<td>7.98</td>
<td>5.08</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>10.64</td>
<td>16.95</td>
<td>11.54</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>9.57</td>
<td>8.47</td>
<td>8.8</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5.32</td>
<td>3.39</td>
<td>15.38</td>
<td>5.4</td>
</tr>
<tr>
<td>7</td>
<td>2.66</td>
<td>3.39</td>
<td>7.69</td>
<td>3.1</td>
</tr>
<tr>
<td>8</td>
<td>3.19</td>
<td>6.78</td>
<td>15.38</td>
<td>4.6</td>
</tr>
<tr>
<td>9</td>
<td>1.60</td>
<td></td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.06</td>
<td>3.39</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1.60</td>
<td></td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1.60</td>
<td>7.69</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>.50</td>
<td>7.69</td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>.50</td>
<td>3.39</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>.50</td>
<td>1.69</td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>1.69</td>
<td>.4</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1.06</td>
<td></td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>.50</td>
<td>1.69</td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1.06</td>
<td></td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>1.69</td>
<td>.4</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>.50</td>
<td></td>
<td>.4</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 reports on the number of mental health visits in the past year.

Overwhelmingly, the sample exhibits that 76.2% do not report any mental health visits.

<table>
<thead>
<tr>
<th>Age Cohort</th>
<th>45 – 64</th>
<th>65 – 74</th>
<th>75+</th>
<th>Total Sample (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>N=260</td>
</tr>
<tr>
<td>Visits in Past Year Year</td>
<td>n=188</td>
<td>n=59</td>
<td>n=13</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>75.00</td>
<td>77.97</td>
<td>84.62</td>
<td>76.2</td>
</tr>
<tr>
<td>1</td>
<td>2.66</td>
<td>5.08</td>
<td>.8</td>
<td>.8</td>
</tr>
<tr>
<td>2</td>
<td>3.19</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>3</td>
<td>1.60</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>4</td>
<td>1.60</td>
<td>7.69</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>5</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>6</td>
<td>2.13</td>
<td>7.69</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>7</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>8</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>9</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>10</td>
<td>.53</td>
<td>3.39</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>11</td>
<td>.53</td>
<td>1.69</td>
<td>.8</td>
<td>.8</td>
</tr>
<tr>
<td>12</td>
<td>1.06</td>
<td>3.39</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>13</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>14</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>15</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>16</td>
<td>.53</td>
<td>.8</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>17</td>
<td>9.57</td>
<td>5.08</td>
<td>8.1</td>
<td>8.1</td>
</tr>
</tbody>
</table>

For this study the total sample of 260 was needed in order to have statistical power using regression analysis testing and to increase the validity of the results which
requires a sample size of at least 138 (Cohen, et al., 2003). Table 11 reports on the bivariate tests that were conducted to determine if respondents who were 65 and older differed from those 45 to 64. There were significant differences at the .05 confidence level on seven measurements included in the study. These included stigma, discrimination, resiliency, mental health distress, number of physical chronic conditions, and having access to private insurance. Stigma showed that those who are under 65 reported more stigma than those who were over 65 with a mean of 18.27 and 13.42 respectively at the p = .000 significance level. Discrimination showed a similar pattern with a mean score of 16.11 for the under 65 group versus 13.29 for the 65 and older age category at the p = .000 significance level. Resiliency was higher for the 65 and older age category at 88.40 and 85.59 for the 65 and under age group at the p = .024 significance level. Mental health distress was found to be higher with the younger age cohort than the 65 and older cohort at 13.41 and 11.85 respectively at the p = .007 significance level. Physical chronic conditions were higher for the older group averaging 3.33 and 2.09 for the 65 and younger age group at the p = .000 significance level. The last significant finding was health insurance where the younger than 65 age group had a slightly higher rate of private health insurance coverage versus the over 65 age group at 2.04 and 2.75 respectively, and was found to be significant at the p = .000 level. Overall, these findings revealed that those who were younger reported more stigma and discrimination, lower resiliency skills, and higher mental health distress. However, the
65 and older age group reported lower rates of private insurance coverage, and higher numbers of physical chronic conditions.

The descriptive statistics for the 45 - 64 and 65+ age groups showed that discrimination was higher in the age cohort of 45 – 64, and internalized homophobia was slightly higher in the 65+ cohort. To investigate if there were interaction effects based on age cohort, this researcher examined interaction effects and ran regressions for discrimination and internalized homophobia controlling for age. Neither of these two psychosocial stress variables were statistically significant indicating that differences were not contributed to age cohort group differences for these two psychosocial stress variables.
<table>
<thead>
<tr>
<th>Age of Respondent</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Error</th>
<th>Sig</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Health Locus of Control</td>
<td>&lt;65</td>
<td>188</td>
<td>24.43</td>
<td>3.370</td>
<td>.246</td>
<td>.602</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>24.65</td>
<td>3.378</td>
<td>.398</td>
<td></td>
</tr>
<tr>
<td>Stigma</td>
<td>&lt;65</td>
<td>188</td>
<td>18.27</td>
<td>6.390</td>
<td>.466</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>13.42</td>
<td>6.360</td>
<td>.749</td>
<td></td>
</tr>
<tr>
<td>Discrimination</td>
<td>&lt;65</td>
<td>188</td>
<td>16.11</td>
<td>4.888</td>
<td>.356</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>13.29</td>
<td>4.365</td>
<td>.514</td>
<td></td>
</tr>
<tr>
<td>Community Support</td>
<td>&lt;65</td>
<td>188</td>
<td>17.71</td>
<td>3.150</td>
<td>.228</td>
<td>.965</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>17.69</td>
<td>2.900</td>
<td>.342</td>
<td></td>
</tr>
<tr>
<td>Friends Social Support</td>
<td>&lt;65</td>
<td>188</td>
<td>19.24</td>
<td>5.109</td>
<td>.373</td>
<td>.602</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>18.85</td>
<td>5.614</td>
<td>.662</td>
<td></td>
</tr>
<tr>
<td>Relatives Social Support</td>
<td>&lt;65</td>
<td>188</td>
<td>14.53</td>
<td>5.974</td>
<td>.436</td>
<td>.936</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>14.46</td>
<td>6.187</td>
<td>.729</td>
<td></td>
</tr>
<tr>
<td>Resiliency Score</td>
<td>&lt;65</td>
<td>188</td>
<td>85.59</td>
<td>9.941</td>
<td>.725</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>88.40</td>
<td>8.469</td>
<td>.998</td>
<td></td>
</tr>
<tr>
<td>Internalized Homophobia</td>
<td>&lt;65</td>
<td>188</td>
<td>18.51</td>
<td>7.266</td>
<td>.530</td>
<td>.080</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>20.35</td>
<td>7.631</td>
<td>.899</td>
<td></td>
</tr>
<tr>
<td>Mental Health Distress</td>
<td>&lt;65</td>
<td>188</td>
<td>13.41</td>
<td>4.092</td>
<td>.298</td>
<td>.007</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>11.85</td>
<td>4.158</td>
<td>.490</td>
<td></td>
</tr>
<tr>
<td>Physical Health Score</td>
<td>&lt;65</td>
<td>188</td>
<td>3.62</td>
<td>.965</td>
<td>.070</td>
<td>.754</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>3.58</td>
<td>.868</td>
<td>.298</td>
<td></td>
</tr>
<tr>
<td>Physical Chronic Conditions</td>
<td>&lt;65</td>
<td>188</td>
<td>2.09</td>
<td>1.678</td>
<td>.122</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>3.33</td>
<td>1.768</td>
<td>.208</td>
<td></td>
</tr>
<tr>
<td>Mental Health Chronic Cond</td>
<td>&lt;65</td>
<td>188</td>
<td>.68</td>
<td>.942</td>
<td>.069</td>
<td>.916</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>.68</td>
<td>1.111</td>
<td>.131</td>
<td></td>
</tr>
<tr>
<td>Total Physical Health Visits</td>
<td>&lt;65</td>
<td>188</td>
<td>5.23</td>
<td>1.107</td>
<td>.081</td>
<td>.060</td>
</tr>
<tr>
<td></td>
<td>&gt;64</td>
<td>72</td>
<td>5.53</td>
<td>1.150</td>
<td>.136</td>
<td></td>
</tr>
</tbody>
</table>
4.3 Bivariate Correlations

Research question four states, do those who disclose their sexual orientation to the health care service provider use more services than those who do not disclose? The use of an independent sample t-test was used to answer this research question for both mental health and physical health. Table 12 reports on the findings from this analysis for physical health. There was no statistical significance between those who disclosed their sexual orientation and those who did not disclose their sexual orientation on the use of physical health services.

<table>
<thead>
<tr>
<th></th>
<th>Disclosure to HCP</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>NO</td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Physical Health Visits</td>
<td>213  4.30  4.630</td>
<td>47</td>
<td>3.77  3.952</td>
<td>.805</td>
<td>76.558</td>
<td>.423</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13 reports on the findings from the analysis for mental health. There was a statistically significant difference between those who disclosed their sexual orientation...
and those who do not disclose their sexual orientation to their mental health professional on the use of mental health services. There were only 62 of the 260 who indicated having mental health visits. Therefore, this analysis is based on \( n=62 \). As detailed in Table 13, those who disclosed to the health care provider used mental health services more often than those who did not.

**Table 13**  
*Independent t-Test for Disclosure to HCP and Mental Health Visits (n=62)*

<table>
<thead>
<tr>
<th>Disclosure to HCP</th>
<th>( \text{YES} )</th>
<th>( \text{NO} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Mental Health Visits} )</td>
<td>54</td>
<td>10.80</td>
</tr>
</tbody>
</table>

*Note.* \( *p < .01. \)

4.4 Use of Logistic Regression to Determine Predictors of Mental Health Visits

There were 260 cases collected for this study and of those, only 62 respondents indicated having at least one mental health visit. Therefore, the use of logistic regression model was used to answer research questions one through three regarding the significant enabling, psychosocial stressors and individual health coping variables that predict service use, and question five regarding the degree of significance of importance between psychosocial stress and enabler variables. It was decided that logistic regression would be a more appropriate analysis technique, because this analysis allows for the use of binominal variables such as mental health visits coded as 0 for no visits and 1 for visits, and it allows for the use of several independent predictor variables that are ratio or categorical variables.
There are several assumptions important to logistic regression as noted by Meyers, Gamst, and Guarino (2006). First there should be an absence of multicollinearity. Secondly, all relevant predictors are included and those that are not relevant are excluded. Thirdly, the included independent variables must be measured at the either the summative, interval, and or ratio level or include dichotomous variables. As noted in Table 14, the included independent variables as predictors that were found to be significant in predicting mental health visits had a $P < .01$ and $P < .05$. Those variables that were found to be significant were included by a theoretical review of the literature and included in the conceptual model for this study are listed in Table 14. Mental health distress and resiliency had a $P < .01$ significance level. Mental Health Distress was positively associated with mental health visits while resiliency was inversely associated with mental health visits. The results indicated that as mental health visits increase, resiliency decreases and mental health distress increases. Community support and physical health visits both had a positive relationship with mental health visits. These two variables were significant at the $P < .05$ level and indicated that as mental health visits increase, community support and physical health visits also increase. Examining the residuals, the -2 Log likelihood was 223.297, and the Cox and Snell $R^2$ Square was .213. Results of the model provides a statistically significant improvement over the constant model, $x^2 (5, N=260) = 62.339, P < .001$. The Nagelkerke pseudo $R^2$ indicated that the model accounts for 32% of the total variance. This suggests that the model that includes these five predictor variables is able to distinguish between the influences on mental health visits. Predictor success for the cases used in the
development of the model was relatively high, with an overall predictor success rate of 81.5%. Table 14 reports on the regression coefficients (B). The Wald statistics, significance level, odds ratio (Exp (B)), and the 95% confidence intervals (CI) for odds ratios (OR) for each predictor are included in the table. The Wald test reports that all are statistically significant predictors of seeking mental health care at either the p < .001 or p < .05 level.

Table 14
Summary of Logistic Regression Analysis for Variables Predicting Mental health Visits (N=62)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable Entered</th>
<th>b</th>
<th>Wald</th>
<th>Significance</th>
<th>Exp(B)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Community Support</td>
<td>.134</td>
<td>5.202</td>
<td>.023</td>
<td>1.143</td>
<td>(1.019-1.283)</td>
</tr>
<tr>
<td></td>
<td>Mental Health Distress</td>
<td>.219</td>
<td>17.340</td>
<td>.000</td>
<td>1.244</td>
<td>(1.123-1.379)</td>
</tr>
<tr>
<td></td>
<td>Resiliency</td>
<td>-.060</td>
<td>8.113</td>
<td>.004</td>
<td>.942</td>
<td>(.904-.981)</td>
</tr>
<tr>
<td></td>
<td>Physical Health Visits</td>
<td>.092</td>
<td>4.226</td>
<td>.040</td>
<td>1.096</td>
<td>(1.004-1.197)</td>
</tr>
</tbody>
</table>

4.5 Multiple Linear Regression – Physical Health Visits

To answer research questions one through three about the predictors of physical health visits from the independent variables included in this study, and research question five regarding the significant differences influencing use of services between psychosocial stress and enablers, a multiple linear regression analysis was conducted with results presented in Table 15 below.

Casewise diagnostics were performed resulting in the elimination of eight cases from analysis for standard residuals greater than + or - 3.0. It was decided to delete these
cases to best account when prediction of 3 standard deviations or more from the mean value of the dependent variable. The result was a sample reduction and regression analysis based on $n=252$. Physical health status was found to be significant at the $p < .0$. Discrimination was found to be significant at the $p < .01$. The other variables included were significant at the $p < .05$. These variables included internalized homophobia, mental health distress level, and support from friends. The results indicated that as physical health visits decreased, discrimination and physical health status increased. Internalized homophobia, mental health distress, and support from friends increase as physical health visits rise.

There are four assumptions for linear regression that need to be examined when conducting this analysis. To ensure homoscedasticity examining to make sure that the variance error terms are constant for each value of the independent variable. If the distribution of data is truly not homoscendastic, the results of analysis can be overstated. Observation of the p-p plot for this data revealed that it is at a 45 degree angle of the residuals indicating a good model fit. Secondly, the scatterplot of standardized regression residuals, and the standardized regression predicted values, fall within $+\ or \ -3.00$. The points on the plot were examined to reveal a consistent horizontal band. In this data, the model overestimates the low predicted health visit values and underestimates the higher values.

Secondly, linearity is an important assumption and is examined looking at the residuals looking for clusters of positive or negative residuals. An examination of the histogram accompanying the residual diagnostics revealed that the error terms are
normally distributed and follow the normal distribution. Lastly, reliability of the independent error terms should be examined looking for residuals that are correlated. During analysis, the Durbin Watson statistics were used to check for reliability. The Durbin Watson was 1.986 and should be between 1.5 and 2.5 for independent observations.

Table 15
Summary of Multiple Linear Regression Analysis for Variables Predicting Physical Health Visits (N=252)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>b</th>
<th>t</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrimination</td>
<td>-.030</td>
<td>.011</td>
<td>-.160</td>
<td>-2.756</td>
<td>.006</td>
</tr>
<tr>
<td>Internalized Homophobia</td>
<td>.016</td>
<td>.008</td>
<td>.133</td>
<td>2.082</td>
<td>.038</td>
</tr>
<tr>
<td>Mental Health Distress</td>
<td>.030</td>
<td>.014</td>
<td>.140</td>
<td>2.192</td>
<td>.029</td>
</tr>
<tr>
<td>Physical Health Status</td>
<td>-.387</td>
<td>.058</td>
<td>-.397</td>
<td>-6.710</td>
<td>.000</td>
</tr>
<tr>
<td>Support from Friends</td>
<td>.024</td>
<td>.011</td>
<td>.140</td>
<td>2.245</td>
<td>.026</td>
</tr>
</tbody>
</table>

Note. $R^2 = .225$.

4.6 Summary

The next chapter discusses the findings and examines each research question with hypotheses proposed in this study. This section is then followed by the implications for the conceptual framework used for this study as well as, the implications for social work policy, program and practice. The chapter ends with a summary of the limitations of this study and future research considerations.
Chapter 5: Summary of Findings

5.1 Discussion and Interpretation of research questions

Social workers as part of the National Association of Social Workers abide by policies that strive to break down barriers including discrimination, stigma, and prejudice towards GLBT individuals. Midlife and older gay men are in a twice hidden group both invisible in the mainstream and gay community and invisible due to their advancing age having lived their life in fear of discrimination concealing their sexual orientation. As stated by Blando (2001) they are “the most invisible of an invisible minority” (p. 87).

The sample of midlife and older gay men in this study utilized services at slightly higher rates than midlife and older adults in general and of the same age categories reported by the U. S. Census Bureau. As was found in the only research study to examine health care usage rates, Heck et al. (2006) found that gay men from their study utilized health care services more frequently than heterosexual men. What is not known in this dissertation research study or the Heck and colleagues study was the degree to which service use was medically necessary and appropriate. In my dissertation study physical health care and mental health care need was assessed and found to be the most significant predictor of physical and mental health care service use. Additionally, in this dissertation research those who used more mental health services used more physical health services and experienced more mental health distress and lower overall physical health status. This has not been examined together in one study in prior research studies.
Below are the interpretations of the findings for each research question followed by implications for social worker and health care practitioners.

5.1.1 Interpretation of Research Question One

When health care need is considered, do enabling factors have a significant influence on the use of physical and mental health services for midlife and older gay men? It was hypothesized that all enablers including income, support from friends, family, and community would have a significant influence on the use of health care services for midlife and older gay men. However, this hypothesis was only partially supported. For mental health, a sense of community support was found to be the only enabling variable that significantly influenced seeking mental health services.

Researchers have identified a sense of community to be important to GLBT folks in achieving a sense of identity of who one represents as a GLBT individual (Mail & Safford, 2003). Meyer (1995) discussed the importance of available community support and resources to building coping skills needed by older adults to deter psychosocial stress. He states that “the gay community can prove an important factor in ameliorating and buffering minority stress in gay men” (p. 52). He discussed that being a part of a community with shared culture and values allows for the “devaluation of the stigmatizing values of the dominant culture” (p. 52).

For this dissertation research, resiliency was found to be an inverse predictor of mental health use along with community support. In their assessment of GLBT health access in Massachusetts, program developers concluded that community participation is important to combat the fear of discrimination and stigma which often times keep GLBT
individuals from seeking care (Clark, Landers, & Sperber, 2001). Therefore, the sense of community support is especially important for those who have been marginalized bringing about coping skills that eliminate psychosocial stress. Program developers and social service providers can use the information about the importance of community support to develop programs and policies which foster social supports and integration to eliminate social isolation, and the lack of information about community supports and resources available. For instance, increasing awareness of community resources, providing transportation, involving community volunteers to encourage participation.

In another study, Jacobs, Rasmussen, & Hohman (1999) suggested that older GLB individuals prefer social support services from within a GLBT setting. These researchers go on to report on their findings which “reflect[ed] a warranted need for specialized, functional and accessible social services which offer supports empirically proven beneficial to the older gay and lesbian population” (p. 23). Other researchers such as Shippy, et al. (2004) found that 94% of respondents felt that the GLBT community played a role in support for older members. When discussing the support needs of older gay men, these researchers recommended that the GLBT community needed to find ways to support the “emotional and instrumental assistance many of these men need” (p. 119).

Social workers need to encourage the use of resources such as gay affirming community mental health organizations as well as, medical facilities that respect diversity. Social workers need to help midlife and older gay men identify community resources that are supportive of one’s sexual orientation. Additionally, social workers can facilitate in mobilizing consumer groups made up of midlife and older gay men who
create their own list of health practitioners and mental health providers within their community.

Support from friends was the only enabling variable found to predict the use of physical health visits. Researchers have found that gay men turn to their friendship networks more often for social support, whereas, heterosexual men turn to family (Shippy, et al., 2004). Additionally, Seeman (2000) found that preventative health behaviors which include health screenings were predicted by the individual’s degree of social ties. In fact, Seeman (2000) states “social ties remain significant predictors of morbidity and mortality independent of any association with health behavior” (p. 365). For this research investigation, friendship networks predicted use of physical health services. Wagnild (2003) describes a connection of resiliency with more friend and family support. Thereby, resiliency increases health promoting behaviors. Resiliency, as a predictor of lowered mental health distress, was found in this dissertation research investigation. This can be seen in the regression analyses for both mental and physical health with the connection of mental health distress found to be a significant predictor for both physical and mental health service use. Therefore, it is not resiliency alone that influences service use but its connection found by other researchers to social supports both community and friends.

Health care and social work practitioners need to be educated on the importance of friends support and the effects of lacking this support and its effect on utilizing health care services, awareness of what that could mean for midlife and older gay men coping abilities and for those who often times live alone. Furthermore, policy makers and
program developers can use the knowledge from this study to better address the health needs of midlife and older gay men within their communities and consumers of their programs. For instance, health care and social service practitioners and policy makers need to be aware of the links between social integration and health.

5.1.2 Interpretation of research question Two

When health care need is considered, do psychosocial stress variables specifically, stigma, discrimination, and internalized homophobia have a significant influence on physical and mental health service use? It was hypothesized that all three psychosocial stress variables of stigma, discrimination, and internalized homophobia would have a significant influence on use of health care services. Psychosocial stress was not found to be significant for mental health service use, and the hypothesis was only partially supported for physical health service use. Internalized homophobia and discrimination were both found to be significant predictors of physical health visits. Stigma was not found to be a significant predictor.

Overall, the results of this dissertation study indicated that discrimination has more of an influence on whether a person utilized physical health services. Researchers have discussed the effects of discrimination on the use of mental health services in other studies. These studies have found that discrimination had a significant negative influence on mental health distress (Meyer, 2003; Waldo, 1999). However, no research studies have statistically examined the effects of discrimination on the use of physical health service use. For this investigation, those who indicated less physical health care service use, when experiencing higher levels of discrimination, also indicated having a lower
Sharma (2006) stated that GLBT individuals’ are five times less likely to seek care due to the fear of discrimination. As stated by Huebner and Davis (2007) “failing to recognize or acknowledge discrimination can have negative health consequences for some individuals from marginalized groups” (p. 627). It could also be a reason why internalized homophobia increases when discrimination decreases. Internalized homophobia predicted physical health service use within this dissertation investigation. Because friendship support was found to be a positive influence on service use, it seemed to be associated with whether the individual had resolved his sexual orientation towards a positive self image thus having reduced the effects of discrimination and increased individual coping skills. Huebner and Davis (2007) report that those gay men who are well educated, use more health services as their reported levels of discrimination increased. The sample for this investigation was highly educated, however, the opposite was found with regards to discrimination and health care service use. For this investigation education level was not found to be statistically significant with regards to predicting service use.

The results of this study are one of the first to report on the positive influence of internalized homophobia with increased physical health service use. Meyer (1995) found that mental health distress increased when psychosocial stress variables of stigma, discrimination, and internalized homophobia were present. This dissertation investigation further substantiates how psychosocial stress, specifically discrimination and internalized homophobia adversely affect physical health service use. The older age cohorts of 65 to 74 and 75+ reported experiencing more internalized homophobia than
the younger age cohort who experienced more mental health distress and discrimination. This seems to indicate that for those midlife and older gay men from this study who had mental health distress, and who indicated lower physical health status, they sought physical health visits more. Additionally, the findings from this investigation revealed the direct impact internalized homophobia had on predicting physical health use.

Additionally, physical health service use indirectly influenced mental health service use indicated by mental health distress found to be significant for both physical and mental health service use. Therefore, there is an indirect influence on mental health service use by internalized homophobia. The sample from this dissertation research sought more use of both physical and mental health services regardless of the effects of internalized homophobia. Williamson (2000) indicated that homonegativity should be considered “as a predisposing and perpetuating factor in many aspects of ill-health” (p. 97). He goes on to state that internalized homophobia has a strong relationship with coping strategies and a “willingness to access certain coping resources” (p. 97). This is supported within the dissertation investigation for overall physical health service use where coping factors, including resiliency and internal health locus of control, were found to be significant. This finding also was connected to mental health service use. Physical health visits predicted use of mental health services. The findings from this study support the belief by O’Hanlan and colleagues (1997), who further discussed that internalized homophobia
Correlates with overall psychological distress, depression, somatic symptoms, poor self-esteem, loneliness, distrust, poor social support, and separation from gay and heterosexual support networks. (p. 26)

Dew, Myers, and Wightman (2005) found in their study that internalized homophobia lowers total wellness. Therefore, those with lower internalized homophobia had greater wellness. This holds true for this dissertation research investigation which has found that higher levels of internalized homophobia increases health service use for those who also indicate higher mental health distress and lower physical health status.

Health care and social worker practitioners need to seek education concerning the barriers created by discrimination to better understand its influence on decreasing the use of physical health services. Additionally, health care and social worker practitioners as well as, policy makers should understand the effects of homophobia and that internalized homophobia does not necessarily equate to non-use of health care and social services. In fact, the analysis of this study found that internalized homophobia increased with health care use. Therefore, health care and social worker practitioners need to be aware of the importance of creating a psychological safe environment. Health care providers and social workers must confront homophobia and discrimination and challenge any of their personal prejudicial feelings or use referrals to gay affirming practitioners if needed.

Policy makers, program developers, health care and social work practitioners must educate and understand the health care and social service needs of the GLBT older adult population, and they must address discrimination in the health care setting for GLBT folks. For instance, creating an open and safe environment is important. This
includes allowing midlife and older gay men to identify as a gay man on health care forms, allowing for the inclusion of partners on health forms, and visually acknowledging a GLBT identity in the medical and social work setting by having gay affirming posters, resources available to GLBT folks, and brochures that address GLBT identified medical and social service needs. Furthermore, the use of a client centered approach to working with midlife and older gay men that allows for client self determination in an informed environment is important. Specifically addressing the client, meeting him where he is at as a gay man, and affirming his identity in the health care and social service setting would help to address discrimination. Furthermore, the use of language that is sexual identity neutral is important. Social workers must understand that shame, as identified by researchers as contributing to internalized homophobia, could be an important barrier to service access for some midlife and older gay men. The understanding of these barriers can lead to changes in policies, programs, treatment, and interventions. One example would be to create an environment where health care and social service treatment is provided in a culturally competent environment, and where tracking incidences of discrimination takes place to further aid in the development of program changes that further address internalized homophobia and discrimination.

5.1.3 Interpretation of research question Three

When health care need is considered, do individual health coping skills of resiliency and internal health locus of control have a significant influence contributing to the use of health services? It was hypothesized that resiliency and internal health locus of control beliefs both would significantly influence the use of mental health services.
Resiliency was found to have a positive and significant influence on the use of mental health services. There were no individual health coping variables found to significantly contribute to the use of physical health services.

Williamson (2000) has found that internalized homophobia may decrease a person’s “willingness to access certain coping resources” and it may act like a “predisposing and perpetuating factor” with regards to “ill-health” (p.97). Other researchers have noted the link between internalized homophobia and lack of effective coping strategies, poor health habits, reduced compliance with screening exams, as well as reduced access and use of health services (O’Hanlan, et al., 1997). David & Knight (2008) point out that older GLBT individuals’ may have an advantage over younger GLBT individuals due to their lifelong development of coping mechanisms against stigma, working through the developmental stages to accept their gay identity, and combating societal homonegativity which has given them the ability to be successfully resilient. The importance of being resilient was further confirmed in this dissertation research investigation. For this investigation, there was an inverse relationship between resiliency and mental health service use. Individuals within the sample that measured high on resiliency were less likely to use mental health services. However, further research is needed which examines internalized homophobia and its correlation to resiliency so that a better understanding of how it affects access and utilization of services can be obtained. The need for this research is further noted by researchers David and Knight (2008), and there were no individual health coping variables found to significantly contribute to the use of physical health services. This researcher believes
that more research would help to understand the role that individual health coping plays in physical health service use.

The significance of resiliency in predicting the use of mental health services, the lack of significance of individual coping skills for physical health service use, along with the connection of mental health distress to both physical and mental health service use has important implications for social workers and other health care practitioners in identifying and encouraging resilient behaviors in order to further empower clients and reduce mental health distress, which has an impact on both physical and mental health service use. Health care and social worker practitioners need to help patients and clients to develop more assertive behaviors towards obtaining health care services, and they need to be encouraged on making appropriate health care decisions, practicing the use of more gay affirming interventions. These interventions need to exemplify the competencies and strengths that the midlife and older gay individual possesses to make better decisions regarding health care service use. Social workers and other health care providers need to abide professional standards paying particular attention to marginalized individuals including the health needs of GLBT individuals. Social work and health care practice must provided health services adhering to confidentiality which has been found to be particularly important to gay men.

5.1.4 Interpretation of research question Four

Do those who disclose their sexual orientation to their health care service provider use more physical and social services than those who do not disclose their sexual orientation? It was hypothesized that those who disclose to their health care service
provider would use more health care services than those who did not disclose their sexual orientation. The results of this study indicated that physical health services are not necessarily influenced by disclosing to the health care provider.

There was a significant correlation found between those who disclosed their sexual orientation to their mental health provider and use of mental health services. For mental health service use, for this sample, disclosure to the health care provider was an important factor to using mental health services which has not been statistically substantiated in prior research studies. However, disclosure to the health care provider was not found to be statistically significant. Researchers have found a connection of self-disclosure to the positive effects on physical health status (Cole, et al., 1996). As stated by Dew, et al. (2005) “self-disclosure is an important mechanism to achieve personal health” (p. 33). In this dissertation analysis it was found that having poorer physical health was a significant predictor for mental health distress, and those who have increased mental health distress have poorer physical health. Both physical health status and mental health distress were predictors of physical and mental health service use.

Heck, et al. (2006) found in their research study that gay men had health care access rates that were the same or better than heterosexual men from the sample. These researchers also found that the sample of respondents were more open about their sexual orientation to their health care and social service providers. For my research investigation, of the 62 respondents from the sample who had used mental health services, 87% had disclosed their sexual orientation to the practitioner, and 82% of the 260 respondents had disclosed to their health care provider. Additionally, the
respondents in my investigation reported higher use of health care services. These results
and the results of Heck and Colleagues counters what other researchers have found
regarding disclosure of sexual orientation to the health care provider. Researchers have
reported that 51% to 82% of lesbians and gay men do not disclose their sexual orientation
to health care providers (Jillson, 2002). Witeck and Combs (2002) found in a separate
study of 159 gay and lesbian adults, that 33% of gay men did not disclose their sexual
orientation to their health care providers. The overall result from non-disclosure is an
increase in disclosure stress for the gay and lesbian adults that affects physical health and
creates a population with increased health risks (Mail & Safford, 2003). Often,
individuals will conceal their identity as a coping strategy to avoid the consequences of
stigma. Therefore, the results of using concealment as a coping strategy can instead
increase stress (Meyer, 2003). Several researchers (Brotman, et al., 2003; Drescher,
2002; Cahill, et al., 2000) have discussed that hiding one’s sexual orientation to avoid
stigma can be used to protect the individual from shame and guilt which they may
experience when disclosing one’s sexual orientation identity to the health care or social
service provider. Researchers have reported two things regarding shame and guilt and
the resulting effects such as increasing the likelihood of non disclosure to the health care
provider. First, Allen and Oleson (1999) found shame to correlate with internalized
homophobia and is believed to be:

One of the core dynamics at the root of the pathological ramifications linked to
internalized homophobia. Shame should be considered an important determining
factor in findings of significant relationships between internalized homophobia

121
and increased depression (Alexander, 1987), lower self-esteem, poorer relationship satisfaction (Romance, 1988), increased psychological distress (Meyer, 1994), and weaker ego strength (Miranda & Storms, 1989). (p. 41)

Secondly, Dew, et al. (2005) found in their research that it was the older gay male over 35 years of age in their sample who reported higher levels of internalized homophobia and a decrease in wellness as compared to those 35 and under who had less internalized homophobia and better overall wellness. For my investigation where most of the sample had disclosed, discrimination was still found to have had an inverse relationship with physical health care service use. Further considering the respondents in my research investigation, the older age cohorts of 64 to 74 and 75+ reported higher levels of internalized homophobia. Additionally, my complete sample of respondents reported higher chronic illnesses than what has been found for men of the same age cohorts in the general population.

Therefore, health care and social work practitioners need to facilitate clients in the coming out process. Health care and social work practitioners’ needs to approach health and social service care for midlife and older gay men from a non-pathological view of homosexuality. The social worker and health care practitioner should evaluate agency and personal procedures and practice values that challenge heterosexism, homophobia, and internalized homophobia which are the first steps in order to reduce discrimination and the fear of disclosure. This can include providing accessible materials that focus on gay men which foster self-awareness and insight which would increase a positive self image and translate into better use of health services. Lastly, social workers and health
care practitioners need to collaborate in a multidisciplinary approach reaching out to other agencies and service providers in the surrounding area to provide workshops and in-service trainings, advocacy, and the use of best health care and social service practice with midlife and older gay men.

5.1.5 Interpretation of research question Five

When health care need is considered, do psychosocial stress factors have more influence on the use of health care services than enabling variables? It was hypothesized that psychosocial stress would have more of a significant influence on health service use than enablers. This hypothesis was not supported for mental health service use. There were no psychosocial stress factors found to be significant, and there was only one enabling factor of community support found to be significant. Physical health service use was found to be influenced by two psychosocial stress variables. Psychosocial stress, specifically discrimination, was found to have a significant and inverse relationship on physical health service use than the enabling factor of friend support. Additionally, internalized homophobia was found to have a positive and significant influence on use of physical health services.

Examining these findings further within the context of the Andersen Newman health utilization Model and Meyer’s psychosocial stress Conceptual framework reveals the connection between internalized homophobia and the enablers of friend support and community support. Meyers (1995) describes coping mechanism that provides friendship support and Williamson (2000) states that friendship support encourages the willingness to access other coping strategies. This understanding contributes to a better
understanding within the conceptual framework for this study with the unique contributions that internalized homophobia played in health status for gay men who have been marginalized. Friendship support acted as an enabler encouraging the use of physical health services. In this research investigation, internalized homophobia was found to be a significant and positive predictor of physical health service use. In their research, Dew, et al. (2005) state:

Internalization of negative societal beliefs has a negative effect on the gay male’s overall mental health and wellness, including more depression and psychosomatic symptoms and higher levels of loneliness, guilt, shame and anxiety. (p. 33)

The connection of mental health distress to both physical and mental health service use was found in this study. Sharma (2006) reports that 42% of gay men have one or more clinical mental health diagnoses which are more than double the 12% reported for heterosexual men. For mental health visits, community support increased use of services. Internalized homophobia predicted physical health service use, with increased mental health distress and friendship support. Allen and Oleson (1999) reported in their research that shame was the underlying factor contributing to internalized homophobia and was tied to the struggles within the individual and his sexual identity development which affects the individuals overall mental health. As has been established by sexual identity developmental researchers (Cass, 1979; Troiden, 1989), individuals need to have a sense of community and social connection often times obtained through friendship connections in order to reduce depressive and psychosomatic symptoms and to increase one’s self esteem.
Therefore, health care and social worker practitioners need to understand the connections and influences of discrimination and internalized homophobia on mental health distress and how that seems to affect physical health service use. Additionally, the understanding of the importance of friendship and community support networks must be integrated into policy, programs, and practice. In order to successfully implement effective policies and programs or make changes to existing programs which break down the barriers, the health care and social worker practitioners need to understand this connection in order to provide for the proper assessment and recommendations of services. More importantly, better programs, policies, assessment and recommendations translate into better use of services that are timely and appropriate.

Furthermore, addressing discrimination in any fashion within the practice setting, understanding its connection to reduced use of services has important implications for health care and social worker practitioners. Addressing discrimination must start with self-awareness and understanding of one’s own limitations as a health care and social work practitioner. Areas were professional development is needed in order to provide health services delivered in a more gay affirming environment, focusing on patterns of health risks, should be sought out by health care and social work practitioners to increase the health and well-being of midlife and older gay men.

5.2 Implications for the Conceptual Framework Used

The conceptual model used for this study included both the Andersen and Newman model and the Meyer’s Psychosocial Stress model. The Andersen Newman model proposes that the perceived need for health care has the most influence on health
service use which was found in this dissertation research using regression analyses. Moreover, the Andersen Newman model allowed for inclusion of psychosocial stress and individual health coping factors that were found to be important predictors of service use. The Meyer Psychosocial Stress conceptual framework, particularly for midlife and older gay men, examined the influence of psychosocial stress factors of stigma, discrimination and internalized homophobia on health outcomes and proved to be an important framework used for this study. This researcher found that a better understanding of health service use was initiated when psychosocial stress and individual health coping factors were included. By incorporating psychosocial stress factors with need, health enabling factors, and individual health coping factors, the Meyer’s framework provided the unique aspects important for examining service use for this marginalized population from a biopsychosocial perspective.

5.3 Limitations and Strengths of the Study

5.3.1 Cause and Effect Limitations

There are several limitations of this study. The major limitation of this study is that the results do not determine causality. When a cross section design is used, we can determine if there is a correlation, but we cannot determine that there is causation. Cross section research designs do not provide the control constraints of a true experimental design needed to make strong conclusions of cause and effect from the collected data. The resulting data should be considered hypotheses generating rather than causal and factual conclusions.
5.3.2 Threats to External Validity

5.3.2.1 Sampling Bias and Sample Size

The sample of gay men in this study utilizes services at slightly higher rates than for all three older adult age categories that are reported by the U. S. Census Bureau. Additionally, 72% of the sample was in the age category of 45 – 64. Researchers have noted that there are a higher percentage of gay men who have a college degree compared to heterosexual counterparts (The Gay & Lesbian Review Worldwide, 2005). This was found true for the sample of this research study. However, due to marginalization experienced by gay men, they earn about 12% and 22% less than heterosexual men (The Gay & Lesbian Review Worldwide, 2005). These differences between the sample in this study, and the general population, should be considered when interpreting these findings. Moreover, while all older adults, 65 and older, have Medicare health coverage, for this sample the majority did not have supplemental insurance plans.

There is the limitation of the sampling frame. While the sampling frame for this study was large and diverse, it cannot be assured that a representative sample of midlife and older gay men 45 and older are included. In fact, those individuals who are the oldest may not be accessible in any way. However, as discussed by Berger (1992) those who try to “pass” as heterosexual are not found to be common among gay groups.

While the sample size was n=260, those who used mental health services totaled n=62 which affected the statistical power needed in order to fully explore influencing
factors on mental health service use. A larger sample of those who have utilized mental health services would be needed to fully explore the biopsychosocial influences on use of services.

There is also the limitation of the generalizability as participants self select instead of using a randomization sampling strategy that approaches the likelihood that every member of the population had a chance to be selected for the study. A sampling issue and effect on external validity was the weakness in using gay choruses and Prime Timers groups where self-selection biases were an issue because gay men who are not in these organizations are less likely to be reached. By using a snowball sampling strategy to seek out non-group members, a wider and more diverse sample from the population that is closer to a true representative sample was obtained. Corliss et al., (2008) believe that snowball sampling enhances the sample representation of the target population. Additionally, Harcourt (2006) states that unless we can determine the size of the makeup of the GLBT population we are left with depending upon smaller samples.

5.3.2.2 Use of Internet

Self selection threatens internal and external validity of this study. It has been found that those who participate in Internet-based research where self-selection is used, usually results in a sample that is more diverse than is often times obtained in laboratory studies (Mustanski, 2001). One strategy used to assess external validity problems was to identify a group of gay men who did not belong to a gay choir or Prime Timers group and assess their characteristics to explore possible differences that might exist between gay men who belong to choirs and Prime Timers groups from those gay men who do not
participate in these organizations. This was done for this study and there were differences found for three indicator variables. The mean average age for the group members was older at 58.90. The non-group members were 54.91. The larger group had higher rates of stigma with a mean average of 16.47 and the non-group 18.52. The third difference was with resiliency where the group members averaged 87.06 while the non-group members were 83.97.

Another aspect is that using Internet-based research oftentimes results in less interviewer effects and this can especially be a factor for “sensitive” topics (Mustanski, 2001). One important consideration is that Internet-based research increases the chances of sabotage of the study (Mustanski, 2001). For instance, the respondent could take the survey twice. The online survey service used for this study allowed the researcher to control for this situation decreasing this risk.

There is the possible limitation of using an online survey to conduct research with older gay men. However, many marginalized segments of the population use computers in order to be connected to others who are similar (Haag & Chang, 1997; Liamputtong, 2007; Hunter, 2005). Liamputtong discusses that online research reaches across “race, gender, age, sexuality, and disability” and it is a means to access vulnerable and larger groups, across “geographical and socio-cultural boundaries” (p. 158). Additionally, the lower cost of conducting the research is one of the largest advantages of online research (Charmaz, 2006; Liamputtong, 2007). It eliminates many of the traditional research biases, provides safety and anonymity of participants and allows individuals to participate who are confined to their homes. The use of electronic interviewing is specifically
relevant for the midlife and older LGB population who use and rely upon it for a connection to a LGBT community (Haag & Chang, 1997).

5.3.2.3 Limitations for Scales

There were a limitation for the stigma consciousness scale used for this study. It was found in the pilot study that overall the stigma scale had very low reliability of .258 which was improved when four scale items were removed, and principle component factor analysis of the remaining items indicated factor loadings on two components. Component one consisted of items 24, 25, 28, and 29. Component two consisted of 26 and 30. The final reliability was .609.

5.3.2.4 Challenges as an Emic Researcher

The investigator of this study is a midlife older gay man knowledgeable about the population and culture associated with this research. This challenged the investigator to make sure that personal biases and beliefs were kept away from the interpretations and analysis of the data. This investigator was constantly provided with feedback about the conclusions drawn from the analysis as well as, the careful evaluation of the steps during data analysis.

5.4 Future Research

Because the sample of gay men included in this research study were predominantly White educational gay men, there is a limitation to this study and a need for future similar research to specifically focus on Black, Hispanic, and Asian midlife and older gay men. The next steps in this area of research would be to initiate a longitudinal research design to ferret out cause and effect. There is also a need to focus on specific
older adult age cohorts as well as, the need to obtain a larger sample of older gay men that use mental health services to better identify factors that influence service use. Future research should focus on identifying better controls of the type of health and social services used. Additionally, further qualitative research methods exploring further the findings from this study are needed to understand the more subjective meanings associated with health care and social service use to emerge from this study. For instance, there is a need to better understand the subjective meaning of what community support means to GLBT midlife and older adults. Moreover, further research is needed that focuses on discrimination and its specific influence on health service use.
References


Bassett, V., Conron, K. J., Landers, S., & Auerbach, J. (2002). Public Health Infrastructure: Building LGBT Competency into Health care Institutions, and


Brotman, S., Ryan, B., Jalbert, Y., & Rowe, B. (2002). The Impact of Coming Out on


Homosexuality; 35(2), 41–63.


Reich, J. W., Erdal, K. J., & Zautra, A. J. (1997). Beliefs about Control and Health
Behaviors Gochman, D. S. (Ed), Handbook of Health Behavior Research I personal and Social Determinants (pp. 94-111). New York: Plenum Press


Appendix

Appendix A: IRB Approval

Office of Responsible Research Practices
300 Research Foundation
1961 Kenny Road
Columbus, OH 43210-1003
Phone (614) 688-8457
Fax (614) 688-0366
www.orhp.osu.edu

February 17, 2009
Protocol Number: 2009R0125
Type of Review: Request for Exempt Determination
ORRP Staff Contact: Cheri M. Petrey
Date of Exempt Determination: 02/13/2009
Qualifying Exemption Category: 2

Dear Dr. Richardson,

The Office of Responsible Research Practices has determined the above referenced protocol exempt from IRB review.

Please note the following:

- Only OSU employees and students who have completed CITI training and are named on the signature page of the application are approved as OSU Investigators in conducting this study.
- No procedural changes may be made in exempt research (e.g., recruitment procedures, advertisements, instruments, enrollment numbers, etc.).
- Per university requirements, all research-related records (including signed consent forms) must be retained and available for audit for a period of at least three years after the research has ended.
- It is the responsibility of the investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University’s ORRP Federally Approved Assurance #00006378.

All forms and procedures can be found on the ORRP website — www.orrp.osu.edu. Please feel free to contact the ORRP staff for questions or concerns.

Cheri Petrey, MA, Certified IRB Professional
Senior Protocol Analyst—Exempt Research

149
Appendix B: Cover Letter to Participant Organizations

February 2, 2009

Dayton Gay Men’s Chorus
Jerry Kenney
President
P. O. Box 642
Dayton, Ohio 45401-0642

Dear Mr. Kenney:

I am an older gay man, and I am a doctoral student at The Ohio State University, College of Social Work in Columbus, Ohio. I am conducting research for my dissertation that seeks to better understand health care service use of gay men 45 years of age and older. It has been found that older gays and lesbians are five times less likely to access services than their heterosexual counterparts. The research has been inconclusive on what specifically are those factors that affect seeking health care for mid-life and older gay men. The ability and willingness to access services are important for health and well-being. It is hoped that the results of this research can be used to better support older gay men.

I am sending these letters to ask for commitment from the choirs and Prime Timers groups chosen for this survey to distribute the information and survey URL web link to members. I am enclosing a participation letter that just states that you are willing to distribute the information to members. It does not obligate the chorus group or any of your members at all. The Ohio State University Human Subjects Review Board requires that I obtain this preliminary approval from community organizations if they are going to be distributing the information directly to members.

For your organization’s participation, I will make a donation to your chorus group of $50.00. The online questionnaire will only take about 20 minutes to complete and will be kept in the strictest confidence. There is no identifying information on the questionnaire. It can be completed online in the privacy of one’s home. Anyone can decide not to participate at any time. If a member or non-member agrees to participate in the study and does not have access to a computer or if any of your members would rather complete the questionnaire on paper I will be able to send out a paper copy once I start collecting actual data.

I am striving to obtain 13 of your members who are 45 and older to complete the survey, or as many members who are over 45. I would also like to ask your members if they
could give out the URL for the study to non group members who are friends that are gay and 45 and older to complete the survey. Once a person completes the survey their data will be combined with other respondents. Respondents will never be personally identified to anyone at any time.

If your organization would agree to pass on the URL link and survey information please sign the participation form and mail it back to me in the self addressed envelope. Once I receive it I will submit it to the review board to obtain permission to start the survey process. I am planning on collecting survey data starting in April and proceed until I obtain 200 total responses from choirs and Prime Timers groups. I will contact you via letter or by email if you provide me with your email address on the participation sheet. I will contact you via letter or by email if you provide me with your email address on the participation sheet once the questionnaire is ready for participants to access.

I really appreciate your help with this study. When the study is complete I will be very glad to provide results of the study to your organization and to any members who would like a copy. If you have any questions about this study please contact me by email at king.shawn@nelsonvilletv.com or king.880@osu.edu.

Thank you for your time and consideration to help me with this study. I very much appreciate any help you may be able to give me.

Sincerely,

Shawn King, MSW, LSW
The Ohio State University
College of Social Work
P. O. Box 176
Chauncey, Ohio 45719-0176
Appendix C: Participation Confirmation Letter

This letter is to confirm that the following organization has agreed to distribute information about the Gay Men’s Health Survey conducted by Shawn King, Doctoral Candidate at The Ohio State University College of Social Work. The reason for this letter is to submit to the University Internal Review board for approval to collect data.

This letter does not obligate the organization or its members to participation in any way. Participation is completely voluntary. No identifying information is collected from participants in the survey. This letter only confirms that the Chorus or Prime Timers Group has graciously agreed to inform their members about the survey and the online URL address to access the survey.

Name of
Organization________________________________________________________

City and
State________________________________________________________________

Authorized Representative
Signature:______________________________________________________________

Email address to contact when URL for Survey is ready____________________
Appendix D: Gay Men’s Health Survey Questionnaire

Dear Participant:

Thank you for taking the time to complete this survey. Please pass this URL address on to any of your friends in the community who might be interested in taking this survey. The survey address is http://www.surveymonkey.com/s.aspx?sm=3R4zoytk5CICofIx7zscOQ_3d_3d.

My name is Shawn King and I am a graduate student at The Ohio State University conducting a survey to gain a better understanding of health care access and service use for gay men. The survey is set up to require an answer to each question to go forward. Once you start the survey it allows you to stop and come back to complete it. However, if you have time please try to complete the survey when you have 30 minutes. While I would like to be inclusive of other identifications within our community, I am focusing on gay men for my dissertation studies. Thank you VERY MUCH for your time and effort to complete this questionnaire.

Confidentiality:
To protect respondents, this survey is anonymous and NO identifying information is collected in this survey. The collected survey data will be kept in a password protected computer – available only to the researcher and his dissertation committee. These data will be kept indefinitely to facilitate comparisons with future samples and may be used for presentation at a conference and/or published. No agency or outside organization will have access to any data.
Efforts will be made to keep your anonymous responses confidential. There could be certain circumstances where your responses must be released. For example, your responses may be reviewed by the following groups

• The Ohio State University Institutional Review Board or Office of Responsible Research Practices.

Your completion of the survey indicates your consent to participate. Participation in this survey is purely voluntary. There are no consequences for refusing to participate and you are under no obligation to take part in the study. This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions.
before making your decision whether or not to participate. You may contact the principal investigator Dr. Virginia Richardson or Shawn King the doctoral researcher below. You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you. By going on line to take the survey you do not give up any personal legal rights you may have as a participant in this study.

Contacts and Questions:
For questions, concerns, or complaints about the study you may contact Dr. Virginia Richardson by email at The College of Social Work, The Ohio State University Email: ichardson.2@osu.edu or by phone at 614-292-1507, or Shawn King at Email: king.880@osu.edu or by phone at 740-416-0944.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

By clicking on "next" at the bottom of this page and continuing with the survey you are agreeing that you have read (or someone has read to you) this form and you are aware that you are being asked to participate in a research study. You have had the opportunity to ask questions and have had them answered to your satisfaction, and you voluntarily agree to participate in this study.

Again, thank you for taking the time to complete this survey.

Sincerely,

Shawn

This survey takes approximately 20 minutes to complete. Once you start it does not allow you to stop and come back into the survey saving all your answers from before. Please take this survey when you have up to 30 minutes to complete.

Please note this survey is for those who identify as a gay man. If you do not qualify for this survey please exit the survey and I appreciate your consideration.

Each question requires an answer or the survey will not advance to the next page.

Thank you for your time.

A. Identification of Sexual Orientation

1. How did you hear about this survey? (Group member or non-group member)
2. What do you consider to be your sexual identity?
3. What do you consider to be your sexual attraction?
4. What do you consider to be your expression of sexual behaviors?
5. Please indicate your current age.

B. Internal Health Control Beliefs

1. If I get sick, it is my own behavior which determines how soon I get well again.
2. Having regular contact with my physician is the best way for me to avoid illness.
3. Whenever I don't feel well, I should consult a medically trained professional.
4. I am in control of my health.
5. When I get sick, I am to blame.
6. My good health is largely a matter of good fortune.
7. The main thing which affects my health is what I myself do.
8. If I take care of myself, I can avoid illness.
9. No matter what I do, I'm likely to get sick.
10. If it's meant to be, I will stay healthy.
11. If I take the right actions, I can stay healthy.

C. Stigma in your life

Thinking back over your life time, for each question, please choose the answer that best captures the degree that these actions have happened to you based on your sexual orientation.

1. Stereotypes about gay men have not affected me personally.
2. I never worry that my behaviors will be viewed as stereotypical of being gay.
3. When interacting with heterosexuals who know of my sexual preferences, I feel like they interpret all my behaviors in terms of the fact that I am a gay man.
4. My being a gay man does not influence how homosexuals act with me.
5. I almost never think about the fact that I am a gay man when I interact with heterosexuals.
6. My being a gay man does not influence how people act with me.

D. Discrimination questions

1. Being treated with less courtesy
2. Being treated with less respect
3. Receiving poor service
4. Being treated as not smart
5. People acting like they are afraid of you
6. People acting like you are dishonest
7. People acting like they are better than you
8. Being called names or insulted

E. Community Supports and Resources

1. How connected to the GLBT Community are you?
2. Mainstream (meaning non-GLBT) health care support agencies within my community are inclusive of a GLBT identity?
3. Mainstream support agencies in my community understand my sexual orientation.
4. I believe GLBT community support agencies in my community are available for when I grow older.
5. I often inquire within the GLBT Community, via friends, GLBT organizations, etc., for referrals to health care service providers.
6. The GLBT community, overall, is supportive of its older adult members?

F. Social Support Networks

For the next set of questions please indicate your amount of social support from Family: Considering the people to whom you are related either by birth or marriage.

1. How many relatives do you see or hear from at least once a month?
2. How often do you see or hear from relatives with whom you have the most contact?
3. How many relatives do you feel at ease with that you can talk about private matters?
4. How many relatives do you feel close to such that you could call on them for help?
5. When one of your relatives has an important decision to make, how often do they talk to you about it?
6. How often is one of your relatives available for you to talk to when you have an important decision to make?

Now please answer similar questions focusing on friendships: Considering all of your friends including those who live in your neighborhood.

1. How many of your friends do you see or hear from at least once a month?
2. How often do you see or hear from the friend with whom you have the most contact?
3. How many friends do you feel at ease with that you can talk about private matters?
4. How many friends do you feel close to such that you could call on them for help?
5. When one of your friends has an important decision to make, how often do they talk to you about it?
6. How often is one of your friends available for you to talk to when you have an important decision to make?

G. Questions about Homosexuality

Please choose the response that best describes how you feel about each statement
1. Obviously effeminate homosexual men make me feel uncomfortable.
2. I feel comfortable in gay bars.
3. Social situations with gay men make me feel uncomfortable.
4. I feel comfortable being seen in public with an openly gay person.
5. I feel comfortable discussing homosexuality in a public setting.
6. I feel comfortable being a homosexual man.
7. Homosexuality is morally acceptable.
8. Even if I could change my sexual orientation, I wouldn't.

H. Resiliency Questions

For these next set of statements please indicate your level of agreement with each.

1. I usually manage one way or another.
2. I feel proud that I have accomplished things in my life.
3. I usually take things in stride.
4. I am friends with myself.
5. I feel that I can handle many things at a time.
6. I am determined.
7. I can get through difficult times because I've experienced difficulty before.
8. I have self-discipline.
9. I keep interested in things.
10. I can usually find something to laugh about.
11. My belief in myself gets me through hard times.
12. In an emergency, I'm someone people generally can rely on.
13. My life has meaning.
14. When I'm in a difficult situation, I can usually find my way out of it.

I. Self rating of Health Questions

Now I would like to ask you a few questions about your current health status.

1. In general, would you say your health is excellent, very good, good, fair or poor?
2. Have you, in the course of the last two weeks, felt nervous and unsettled?
3. Have you, in the course of the last two weeks, felt troubled by anxiety?
4. Have you, in the course of the last two weeks, felt secure and calm?
5. Have you, in the course of the last two weeks, felt irritable?
6. Have you, in the course of the last two weeks, felt happy and optimistic?
7. Have you, in the course of the last two weeks, felt sad or depressed?
8. Have you, in the course of the last two weeks, felt lonely?
9. Have you disclosed your sexual orientation to your primary health care physician?
10. Have you disclosed your sexual orientation to your mental health counselor?

J. Chronic Conditions
Please indicate whether a physician or health care practitioner has ever diagnosed you with any of the following conditions.

Heart disease
Heart attack
Hypertension
High cholesterol
Mitral Valve prolapsed n
HIV related conditions
Diabetes n
Asthma
Cancer n
Atrial fibrillation n
Osteoporosis n
Arthritis n
Hepatitis A n
Hepatitis B n
Hepatitis C n
Alcohol Dependency n
Substance Dependency
Clinical Depression n
Anxiety Related Disorder
Eating Disorder n
Other

K. Physical Health and Mental Health Visits

Please indicate the number of visits in the PAST YEAR; you have received for the following health care service needs. (Chronic condition is an on-going condition for which there is no immediate cure, like hypertension, arthritis, diabetes, or HIV).

Physical Exam
Blood Pressure Check
Cholesterol Check
HIV Screening
For chronic conditions
Mental Health Counseling
Dental Care

1. I have delayed seeking care when needed.
2. I am the kind of person that waits until symptoms get much worse before I seek health care.

L. Demographics Questions

Now just a few more demographic questions in order to better understand differences in survey respondents.

1. How many people live in your household?
2. If you do not live alone please indicate all individuals who live in your immediate household, otherwise choose live by myself.
3. What is your current PRIMARY source of health insurance coverage? (If more than one source, please enter the secondary health insurance source in "Other" column).
4. Please indicate how you identify.
5. Please indicate the highest education level you have completed.
6. What is your employment Status? (If self employed choose "Other")
7. Please indicate the category that best includes your MONTHLY income?

Thank you for taking this survey. I appreciate the time and effort this took. I hope that the results of this survey will add to the knowledge and understanding of the needs of gay men and their health and well-being. Please feel free to add any comments and feedback about the questionnaire below. Please pass on the URL address to your friends http://www.surveymonkey.com.