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Rural Environmental Factors and Lesbian, Gay, Bisexual, and Transgender Mental Health Services Utilization

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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Abstract

The rates of mental health issues in the lesbian, gay, bisexual, and transgender (LGBT) communities are twice that of individuals who identify as heterosexual. Research in urban communities show lower mental health services utilization rates for LGBT individuals compared to their heterosexual counterparts. The purpose of the study was to examine how rural environmental factors affect the use of mental health services by LGBT individuals and provide information to improve mental health outcomes. Andersen's healthcare utilization model and the minority stress theory were the foundations of this study. This study examined the association of mental health providers' availability/characteristics and utilization of mental health services and the association of perceived sexual discrimination and mental health services utilization in rural LGBT communities. Questionnaires were used to collect data from a random sample of 121 LGBT participants in Virginia, and linear and multiple regression was used to analyze the data. The findings for the associations between environmental factors and mental health service use were $p < .84$ for perceived discrimination, $p < .04$ for fear of provider insensitivity, $p < .02$ for provider availability, $p < .000$ for provider insensitivity and hostility, and $p < .003$ for provider insensitivity and ridicule. The results showed a need for specialized and sensitivity training in the health community and the need for improved access for LGBT health consumers in rural communities. The results of this study might lead to social change by encouraging improvement in mental health services and mental health outcomes for the LGBT community.

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Dedication

This is dedicated to Rachel Robinson. She was the first person to tell me at age 10 that I would become a doctor. She has long since left to rest in heaven, but her words were cemented into my being. Now those words are being made manifest.

Acknowledgments

Thank you to my mom and dad for always making me believe I was the brightest, most capable person on the planet. They taught me I could go as far in life as my mind could take me.

Thank you to my children, Willie Thomas Rorie, III and Terry Isaiah Rorie for being the reasons I work so hard. Thank you for being God's gift and teaching me how to love unconditionally.

Thank you to my shining Starr, Yvette Gordon, for always pushing me to live up to the light that's in me. Thank you for being my rock and my constant solid. Thank you for being there in the times I wanted to give up and the times I didn't know which way to go.

Thank you to all my friends who have cheered me on and listened to me grumble of how hard and overwhelming this journey has been. This especially goes to my dearest beagle.

I love you all.

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Section 1: Foundation of the Study and Literature Review

Introduction

The purpose of the study was to explore rural environmental factors that affect utilization of mental health services by lesbian, gay, bisexual, and transgender (LGBT) individuals. Rural areas were identified based on the Office of Rural Health Policy parameters for area codes. In fulfilling the purpose of the study, I addressed these research questions: "What is the association of available mental health providers availability and provider characteristics and utilization of mental health services in rural LGBT communities?" and "What is the nature of association of perceived sexual discrimination and mental health services utilization in rural communities?" Though anxiety and depression are mental health struggles for individuals in the LGBT community, individuals in the community do not always use mental health services in urban areas; however, few studies provide information on individuals of this community living in rural areas (McIntosh & Bialer, 2015). Anxiety and depression have a direct link to suicide ideation and attempts, and higher rates of these illnesses are found in the overall rural population in comparison to urban areas. Thus, this research was intended to inform policy related to specialized training and mental health service access to provider associations like the American Medical Association and stakeholders including private insurance companies. The information from this research can help stakeholders understand barriers that create the gap in mental health services utilization by LGBT individuals in rural communities. The findings and recommendations of the study encourage efforts in decreasing barriers to mental health services utilization. The results

provide evidence for the health community to engage in specialized sensitivity training and the need for improved mental health services access for LGBT health consumers in rural communities.

This chapter includes two sections: Foundation of the Study and the Literature Review. The first section details the problem statement, the purpose of the study, the research questions and hypotheses, theoretical foundation of the study, and nature of the study. This section also includes the literature search strategy, literature review related to key concepts, definitions, assumptions, scope and delimitations, significance, summary, and conclusions. Section 2 details the research design and rationale, the methodology, the population, sampling and sampling procedure, instrumentation and operationalization of constructs, the threats to validity, and ethical procedures and considerations.

Problem Statement

Individuals in the LGBT community are considered the minority when relating to sexual orientation. Increased levels of discrimination and marginalization are the experience of many in this community when compared to their heterosexual counterparts. For instance, LGBT individuals report feelings of discrimination when using health services once they divulge their sexual orientation (Moone, Crohagan, & Olson, 2016). Recent reports show that bisexual individuals often do not disclose their sexual orientation to health care providers. For example, the Human Rights Campaign (2017) stated that 39% of bisexual men and 33% of bisexual women potentially compromise their health due to lack of appropriate care related to the fear of fully communicating

their sexual orientation. Full disclosure decreases in response to perceived incidents of discrimination.

LGBT individuals have rates of mental health issues, such as anxiety and depression, that are two times that of heterosexuals (National Alliance of Mental Illness, 2017); however, the lack of discussion and awareness within the LGBT community inhibits individuals from using available treatment and supportive modalities. The underuse of services can have a negative effect on the overall health of LGBT individuals. The mental and emotional struggles with acceptance share a link to suicide ideation and suicide attempts (Skerrett, Colves, & De Leo, 2016). Depression has been reported to be largely untreated in the LGBT community. Researchers have linked increased depression and unmet mental health care and mental health services for LGBT individuals in relation to discrimination compared to their heterosexual counterparts (Steele et al., 2017)

Factors such as fear of discrimination from health care providers and increased suicide ideation and attempts support the need for specialized mental health awareness for the LGBT community. The increase in suicide attempts promotes the need to investigate ways to mitigate the associated factors that lead to underutilization of mental health services by the LGBT community. LGBT individuals are often deterred from seeking care because of the characteristics of providers and services that are insensitive and excluded gender affirmation and risk to confidentiality (Romanelli & Hudson, 2017). Thus, exclusion and distrust create a barrier to positive health outcomes. There is also a lack of in-depth clinical competence through training in this area that leads individuals to

seek help less often (Bonvinci, 2017). The special needs of this community require development, training, and provision of mental health services specific to LGBT individuals.

Purpose of the Study

The purpose of this study was to quantitatively explore how rural environmental factors affect utilization of mental health services by LGBT individuals. LGBT individuals have higher rates of mental health issues than heterosexual individuals but utilize mental health services less than heterosexuals. The rates of suicide ideation and suicide attempts are higher in the overall rural population than in urban areas (National Alliance of Mental Health, 2017). Higher rates of mental health issues in LGBT and higher rates of suicide and suicide ideation in rural areas is a health concern. Studies on mental health services utilization for rural LGBT individuals are scarce.

There are different influencers when determining the utilization of health services. Factors such as fear of discrimination and lack of confidentiality have been reported as causing a decrease in the utilization of health services by LGBT individuals (Romanelli & Hudson, 2017). Provider availability and providers with specialized training in the care of LGBT individuals can also impact mental health service use. There is a need for practices to develop policy and procedures specific to LGBT individuals to promote utilization of mental health services (Khalil, Leung, & Diamant, 2015).

Research Questions and Hypotheses

Research Question 1: What is the association of mental health providers' availability and their characteristics with the utilization of mental health services in rural LGBT communities?

$H_1$1: There is an association in mental health service utilization based on availability of mental health service providers and their characteristics.

$H_0$1: There is no association in mental health service utilization based on availability of mental health service providers and their characteristics.

Research Question 2: Is perceived sexual orientation discrimination associated with the level of mental health services utilization in rural LGBT communities?

$H_1$2: There is an association between perceived sexual orientation discrimination and the level of mental health services utilization in rural LGBT communities.

$H_0$2: There is no association of perceived sexual orientation discrimination and mental health services utilization in rural LGBT communities.

Theoretical Foundation for the Study

Andersen's healthcare utilization model and the minority stress theory were the theoretical frameworks for the study. Andersen's healthcare utilization model is a model that associates different predisposing characteristics like gender, age, and cultural health beliefs and enabling characteristics/resources like socioeconomic status, community support, and social support, with the use of health care services (Graham, Hasking, Brooker, Clarke, & Meadows, 2017). For example, the transgender community has reported decreased social support, which has led to 61%–66% suicide ideation and

decreased health seeking behaviors (Steele et. al., 2017). Additionally, gender affirming providers and how they engage with consumers is a factor in utilization of services (Khalil, Jeung, & Diamant, 2015). This study extends the use of the model to include sexual orientation and geographical location as predisposing factors.

The minority stress model evaluates how different factors contribute to stress and behaviors. These factors include perceived discrimination, marginalization, insensitive interactions, ridicule and sometimes hostile reactions from others. This model conveys that health and health seeking behaviors are directly related to the factors that increase or decrease stress (Whitehead, Shaver, & Stevenson, 2016). LGBT individuals face stigmas and poor social support as a minority group. The lack of social support and stigmatization are also factors that contribute to stress. The minority stress model describes how a stigmatized group behaves in relation to the stress caused by these factors. For example, transgender and bisexual individuals report increased depression and reluctance to seek treatment as a sexual minority (Steele et. al., 2017).

Through Andersen's healthcare utilization model and the minority stress model, I was able to explain the mental health service utilization practices of LGBT related to rural environmental factors. Andersen's healthcare utilization model provided the key concept that factors can prevent or encourage health care services utilization. The minority stress model provided the key concept that the stress of belonging to a minority group has a direct impact on behaviors including seeking health care.

Nature of the Study

I used a quantitative approach with a nonexperimental design to evaluate the association of variables including available mental health service providers and their characteristics, perceived discrimination, and mental health services utilization. The additional variable of sexual orientation was used to analyze appropriate respondents. Surveys that captured sexual orientation and mental health services utilization information as well as impacting factors were analyzed to discover statistically significant associations. Collection of primary data was not necessary to complete this study. Secondary analysis of existing primary data was used to answer the research questions and test hypotheses. The dependent variable was mental health service utilization and independent variables were perceived discrimination and availability of mental health providers and their characteristics. SPSS, a scientific tool, was used to analyze the data collected.

Literature Search Strategy

The databases used during the study include Thoreau, PubMed, MedlinePlus, CINHAL, Google Scholar, and EBSCO. The search terms included *sexual orientation, mental health care providers and utilization, lesbian, gay, bisexual, transgender individuals,* and *discrimination*. Other terms used to identify applicable literature were *quantitative* and *rural*. The search provided limited up to date (no more than 5 years old) peer-reviewed articles appropriate for the research topic. The information gathered for this study range in date from 2014–2017. Sixteen articles and four national sites were

used to develop the study for environmental factors that affect mental health services utilization.

Literature Review Related to Key Variables and Concepts

Mental health in America has become a health topic of primary focus with reports that mental health issues are experienced by one in every five adults with access being a barrier (Mental Health America, 2017). Studies show that individuals who identify as LGBT often experience depression without treatment (Steele et al., 2017). For example, Steele et al. (2017) identified transgender and bisexual individuals as having higher rates of unmet mental health needs than their heterosexual counterparts, with fear of discrimination as a common barrier to seeking treatment (Steele et. al, 2017). Therefore, in urban areas, there is an association between fear of discrimination (independent variable) and mental health service use (dependent variable). Resistance of LGBT individuals to receiving mental health treatment for depression leads to poor mental health outcomes and increases the risk of suicide ideation and suicide.

Research has noted factors that affect LGBT individuals' access to health care, which can affect mental health service use. For example, challenges to proper health care and mental health care include available specialized practitioners, few treatment options in the area, waitlist and cost, and negative experiences described as disrespectful causing discomfort and additional mental stress (McCann & Sharek, 2014). Furthermore, a cross-sectional survey on 6,450 transgender individuals indicated disparities in accessing health care due to environmental factors like lack of transgender affirming providers and providers who have specialized sensitivity training (Bovinci, 2017). Sixty-five percent of

physicians heard derogatory comments related to LGBT individuals, and 34% reported seeing care that they would consider discriminatory (Bonvinci, 2017). However, specialized training on the needs of LGBT individual may mitigate the discriminatory comments and care noted by providers (Bovinci, 2017). This research indicates that there is an association of available mental health service providers in respect to the characteristic of sexual orientation affirming and specialized sensitivity training (independent variable) and the ability to access or utilize mental health services (dependent variable).

Though members of the LGBT community experience high levels of stress and anxiety often attributed to discrimination, stigma, and even hate, the microaggressions toward this community impact mental health and creates isolation when care is necessary (Bialer & McIntosh, 2017). The resulting isolation from microaggressions affirms that perceived discrimination can limit an individual's desire to seek care. Additionally, LGBT individuals are often estranged from friends, family, and areas in the community, leading to fear of discrimination and negative experiences when care is needed (Moone et al., 2016). The Agency for Healthcare Research and Quality (2017) suggested a link between mental health outcomes and social factors including lack of social supports due to discrimination. The fear of discrimination leads them to forego care or limit how much information they provide when seeking care, especially their sexual orientation. Incomplete information when receiving health services can lead to incorrect treatment and negative outcomes. Discrimination related to sexual orientation has led to nondisclosure but has also caused many to delay seeking treatment for mental health

needs (Steele et al., 2017). Research has also indicated that feelings of exclusion throughout the entire healthcare system have led to negative mental health use rates (Steele et al., 2017). Use rates of mental health services by LGBT individuals decrease as the threat of unfair and unjust treatment surrounds their experiences.

Although perceived discrimination has been shown as a barrier to mental health services utilization, other environmental factors hinder care like availability of providers and characteristics of providers. The available access to appropriate mental health providers is scarce (Bovinci, 2017; Romanelli & Hudson, 2017). Appropriate mental health service providers in this context relates to the degree of specialized cultural training related to LGBT individuals and transgender affirming providers. There is a link between the deficit in specialized training and transgender affirming providers to the use of mental health services. Additionally, the characteristics of available providers cause some LGBT individuals to avoid seeking care. Providers who did not develop a rapport with patients as gender affirming led to concerns of discrimination and confidentiality (Romanelli & Hudson, 2017). Exclusion and distrust create a barrier to positive outcomes. In a study on mental health use, 73% of the respondents went without mental health treatment because the available providers did not create a sense of comfort (Romanelli & Hudson, 2017). The findings align with discrimination as a barrier to care but also highlights the availability of providers as an issue. This suggests that specialized training and cultural sensitivity are necessary to positively impact the utilization of mental health services by LGBT individuals (Bonvinci 2017). Specialized training and cultural sensitivity should be a standard across health care systems. Instituting specific

policies and procedures in mental health practices can promote utilization of mental health services (Khalil, Leung, Diamant, 2015).

Members of the LGBT community often fear discrimination and negative experiences, which lead to disinclination to seek necessary mental health care (Moone et al., 2016; Steele et al., 2017). Research has revealed a link between unmet mental health needs and increased suicide ideation and attempts among this community. Although discrimination and access have been recognized as primary factors on mental health service utilization in urban areas, previous studies provide little to no data on rural factors and areas. The minimal information from rural areas supports the need for this study to explore environmental factors in rural areas that may affect mental health service utilization. Further research is necessary to examine intitiatives that would lead to an increase in the utilization of mental health services for LGBT individuals in rural areas.

Definitions

For this study, mental health issue includes self-reported poor mental health, depression, anxiety, and suicidal thoughts.

For this study, mental health provider includes any mental health professional legally licensed to provide mental health services including outpatient counselors.

For this study, mental health service includes any professional mental health service that assesses, diagnoses and treats, and/or counsels including inpatient and outpatient counseling, hospitalization (full or partial) for mental health, professional support groups, and establishing a doctor patient relationship with a licensed

psychologist, psychiatrist or psychotherapist to relieve mental health symptoms or conditions (Baylor College of Medicine, 2018).

For this study, perceived discrimination is defined as believing one has been treated differently in a negative way based on identifying with a group (Steele et al., 2017).

For this study transgender/hetero is used to define a person who identifies as transgender (gender identity differs from that of the assigned gender) but sexually orients to their assigned gender (Virginia Transgender Health Initiative, 2015).

Assumptions, Scope and Delimitations, and Limitations

Assumptions

I assumed that respondents from the datasets had answered the questions regarding sexual orientation, perceived discrimination, and mental health honestly. This assumption is meaningful in that dishonest answers limit the number of available data for analysis. I also assumed that respondents had a clear understanding of the questions. This is a meaningful assumption because a lack of understanding of the questions can lead to incorrect answers which also limits the number of available data for analysis.

Scope and Delimitations

The scope of the study is centered on mental health services utilization by individuals in the LGBT community and the rural environmental factors that affect utilization. Mental health services utilization in the LGBT community was chosen as the focus for this research because of the reported rates of poor mental health, anxiety, depression and suicide. It has been found that members of the LGBT community

experience anxiety and depression at rates that are twice that of heterosexuals (National Alliance of Mental Illness, 2017).

The scope of the study is limited to the research questions as well as the time allocated to conduct the research and present the findings. Included respondents were individuals who identify as lesbian, gay, bisexual, or transgender and their residence as rural. Excluded respondents were individuals who identify as traditional heterosexual and those who identified their area of residence as urban. The variables were studied in the context of the minority stress model and Andersen's healthcare utilization model. Theories such as social patterns of illness and medical care or Suchman's theory were deemed not appropriate for this research although they focus on healthcare utilization. The study is limited to the use of secondary data and quantitative analysis. Secondary analysis of existing data saved me time relative to data collection. Analyzing previously collected data allows additional interpretation from that of the primary research. Time saved and additional interpretation increase the knowledge base of the researched topic. Using secondary data and quantitative analysis is also a requirement of the university's Doctor of Healthcare Administration program. This study has good generalizability because the results can be applied to similar populations in similar situations.

Limitations

The study was limited by the scarcity of up to date (no more than 5 years) literature involving LGBT and mental health services utilization in rural communities. The university requirement of quantitative secondary analysis of primary data also limited the availability of data related to the studied variable. The study was further

limited by a small number of respondents in the available datasets relevant to the research variables. The limitations were handled by pulling specific relevant information from the available literature, using a dataset with the research variables with quantifiable data, and analyzing the available respondents relevant to the variables.

Significance, Summary, and Conclusions

Conducting research on environmental rural factors affecting mental health service utilization by LGBT individuals is significant to various stakeholders including LGBT individuals, providers, communities, and policy makers. Through the findings of this research, stakeholders can gain more knowledge on the barriers to mental health service utilization faced by LGBT individuals in rural communities. The results of the study can open dialogue toward implementing policies and initiatives to educate and train providers that eliminate barriers to utilizing mental health services. The implementation of policies and initiatives that reduce barriers for LGBT individuals can create a platform for increased mental health services utilization. Meeting the mental health needs of the LGBT community creates social change and impacts mental health outcomes.

In this study, I explored rural environmental factors impacting mental health services utilization in the LGBT community. I hypothesized that the utilization of mental health services is impacted in the LGBT community due to perceived sexual orientation discrimination and the number of available providers and their characteristics. The dependent and independent variables were mental health services utilization and rural environmental factors such as perceived discrimination and nature of available providers related to availability and cultural sensitivity. Research reflects a relationship between

mental health services utilization, perceived discrimination, and available mental health provider characteristics but is limited to urban areas (McIntosh & Bialer, 2015). Reoccurring themes from the literature show support for decreasing barriers to mental health services utilization. Decreased barriers to services improve mental health outcomes and the quality of life for individuals who access care.

Section 2: Research Design and Data Collection

Introduction

This section provides a description of the research design and the methods of collecting data. It includes a description of the population and sample size including how the sample size was determined. This section also includes operational definitions of the variables and how they were measured. Instrumentation for data collection and its reliability and validity are also recorded in this section and includes how the data were analyzed. Finally, a review of ethical considerations and procedures is included.

Research Design and Rationale

I used a nonexperimental research design to explore rural environmental factors affecting mental health services utilization by LGBT individuals. The rationale for choosing this research design is it allowed me to explore associations between the independent and dependent variables without manipulation of the subjects. In a nonexperimental research design, collected information through surveys allows for data to not be manipulated. Identification as LGBT, perceived discrimination, and the characteristics of available mental health providers were the predictor variables that cannot be controlled or manipulated. The relationship between the predictor variables and mental health services utilization, the dependent variable, was analyzed and provides correlational results. The nonexperimental research design allowed me to draw conclusions on the relationships between the variables.

Methodology

I adopted quantitative methodology, which is used to measure and describe occurrence levels based on calculations and numbers. For this study, numerical data were analyzed from secondary datasets to examine the relationship between LGBT individuals' utilization of mental health services and available providers/characteristics and perceived discrimination. The secondary analysis of the dataset mitigates threats to internal validity, as the research is not primary. I used the Virginia Transgender Health Initiative (VTHI) dataset. The VTHI contains sexual orientation, perceived discrimination, provider availability/characteristics, and mental health service utilization variables.

Population

The study population is individuals who identify as lesbian, gay, bisexual, or transgender age of 18 and older. The total number of lesbian, gay, bisexual, and transgender individuals in Virginia is approximately 260,000. The available statistics show LGBT as one group and are not broken down individually (number of lesbian individuals, number of gay individuals, number of bisexual individuals, or number of transgender individuals). The identified young adults qualified to be respondents based on identifying their area of residence as rural or rural commuting. Rural and rural commuting is defined by the Virginia Office of Health Policy designated rural area codes (Virginia Department of Health, 2019).

Sampling and Sampling Procedure

A sample of 121 respondents was selected from the VTHI datasets. The sample size was determined by two factors. The first factor was sexual orientation identification as lesbian, gay, bisexual, or transgender. The second factor was the available respondents for the research variables calculated using the power of a 99% confidence interval through the Qualtrics sample size calculator. The datasets contained the variables stated from the research questions, sexual orientation, perceived discrimination, mental health service utilization, and available mental health service providers and characteristics. The sample was a random sample from the available respondents dictated by the variables. Using a random sample decreases the chance for research bias and lowers the external threat to validity. Excluded from the sample were individuals who identified as traditional heterosexual. The procedure for obtaining the random sample was completed using the data tab, select cases, select random sample in SPSS.

Instrumentation and Operationalization of Constructs

The study was conducted from data in which surveys were used as the instrument of collection. Reliability of the survey instrument used for data collection was maintained by using the same questions for everyone surveyed. Validity of the survey instrument used for data collection was accomplished by using content relevant to the research topic. For example, the question that ask respondents about discrimination from a health care provider supplied pertinent information for the research. The VTHI was developed by the Virginia Health Department in collaboration with the department of Health and Human Services in 2005 and released in 2015. The data collection came from

surveys for multiple years in multiple phases with respondents 18 and older from voluntary focus groups from the Virginia Health Department (Bradford, 2015). The history and maturation of the collected data was a threat to the internal and external validity. Random sampling coupled with recent background literature minimized the threat of outdated results. The datasets were pulled from the Inter-University Consortium for Political and Social Research through Walden University's partnership with permission for use. The datasets reliability and validity were confirmed through Inter-University Consortium for Political and Social Research.

The surveys contained the specific variables needed for this research. The dependent variable, mental health service utilization, was measured with yes or no in which the answers were converted to numerical values (1-no, 2-yes). The independent variable, perceived discrimination, was measured with yes or no in which the answers were converted to numerical values (1-yes, 2-no). Available providers in the area and belief of provider insensitivity or ridiculing characteristics was measured with "not selected" or "selected" in which the answers were converted to numerical values (0-not selected, 1-selected). The data measures were analyzed using logistic regression and interpreted based on the *p* value of the ANOVA indicating acceptance or rejection of the analyzed variable model. The adjusted r-squared from the model was used to determine the degree in which the independent variable predicted the dependent variable.

Ethical Procedures

The first ethical procedure adhered to was receiving approval from the University Research Reviewer on use of the chosen data set. Use of the data set for secondary

analysis was obtained by data open to public and by agreements between dataset owners and Walden University. The original researcher of the chosen dataset for secondary analysis obtained previous approval from the IRB and ethics committee to collect data on human participants. Human participants voluntarily participated in surveys for data collection. Ethical concerns for the recruitment of participants were mitigated by thorough explanation of the purpose of data collection as reported from primary research. Current IRB approval (approval no. 01-25-19-0667437) was also obtained for this research study and was also a required ethical procedure adhered to for this research. Since secondary data was used for this study, additional respondent consent was not necessary. Other ethical considerations included privacy and confidentiality. The dataset used for this research is a public dataset. However, deidentification of participants was used during the primary research data collection to protect participants privacy and confidentiality. Ethical concerns noted using the VTHI are that of participant comfort with the interviewer to reveal truthful answers. Other ethical concerns with the VTHI were researcher bias. Participant comfort with the interviewer was addressed by vetting interviewers. Participant comfort with the research was addressed by collaboration of the Virginia Health Department and the Center for Disease control in the formulation of a task force to engage community support and trust. Participants could review the results of the research and random sampling wad done to mitigate researcher bias. The researchers conducting the VTHI, received consent from participants for collected data to be stored and used for additional research.

The following section presents the results and findings of the study. The section includes tables to illustrate the results and explanation of the tables.

Section 3: Presentation of the Results and Findings

Introduction

The purpose of the study was exploring rural environmental factors that impact mental service utilization by LGBT individuals. The study addressed the following research questions: "What is the association of available mental health providers and provider characteristics and utilization of mental health services in rural LGBT communities?" and "What is the nature of association of perceived sexual discrimination and mental health services utilization in rural communities?" I hypothesized that there is an association with mental health services utilization based on available providers and the provider characteristics as well as perceived discrimination.

This section is broken down into three sections: data collection of the secondary dataset, the results, and a summary. The first section will describe the process of data collection of the secondary dataset in terms of time frame and recruitment and response rates. The section also provides baseline descriptive and demographic information as well as how representative the sample is to the population. The Results section provides descriptive statistics of the sample and reports statistical analysis findings as appropriate to the research questions. It includes tables and figures to illustrate the results. The summary gives an overview of the answers to the research questions. This section concludes with a transition to Section 4 which describes how this research can be applied to professional practice and influence social change.

Data Collection of Secondary Dataset

The data collection for the VTHI dataset was done as a collaboration between the Virginia Health Department and the Department of Health and Human Services. Adults 18 and over were surveyed using questionnaires from 2005 to 2006. The surveys were completed onsite at the health department or mailed for respondent recruitment. A total of 350 participants made up the respondents for the dataset and represent 60 of the 136 counties in Virginia. There were 130 out of the 350 respondents who identified as LGBT and identified their area of residence as rural. There are approximately 2.5 million people in rural Virginia out of the 8 million total population. Approximately 260,000 out of the 8 million total population identify as lesbian, gay, bisexual, or transgender making up less than 3% of the population (Movement Advancement Project, 2019). Individual verifiable statistics for rural LGBT versus urban LGBT are not available. The sample for this study represents .05% of the total LGBT population in Virginia.

For this study the dataset was broken down into a subset representing only rural and rural commuting respondents and respondents identifying as lesbian, gay, bisexual, and transgender. The remaining available respondents were 130 in which a random sample of 121 was used for this research study.

Results

The random sample of respondents in this study is comprised of LGBT individuals living in rural and rural commuting Virginia. The break down for each category are as follows: 26 lesbian, 18 gay, 33 bisexual, 44 transgender (labeled transhetero). Statistical analysis for the first research question “What is the association of

mental health providers availability and their characteristics with the utilization of mental health services in rural LGBT communities?" is illustrated in Tables 1-6. The tables address the research question for which the hypothesis that there is an association between provider availability, provider characteristics, and mental health service utilization. The association of provider availability and mental health services utilization is seen in Tables 1-3.

Table 1

Model Summary for Mental Health Provider Availability

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.468[a]	.219	.184	.400

a. Predictors: (Constant), Counseling or psychotherapy - PRIMARY reason you are unable to receive-not available in area.

Table 2

ANOVA for Mental Health Provider Availability

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.986	1	.986	6.169	.021[b]
	Residual	3.514	22	.160		
	Total	4.500	23			

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

b. Predictors: (Constant), Counseling or psychotherapy - PRIMARY reason you are unable to receive-not available in area.

Table 3

Coefficients for Mental Health Provider Availability

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.397	.164		8.519	.000
	Counseling or psychotherapy - PRIMARY reason you are unable to receive-not available in area.	.054	.022	.468	2.484	.021

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

Table 2 provides a *p*-value of .021, which shows a statistical significance and acceptance of the model summary of provider availability (Table 1). This indicates that no provider availability in the area impacts receiving mental health services. The model summary in Table 1 provides an *R*-squared value of .219, which indicates that approximately 22% of those not receiving mental health services is determined by no provider availability in the area. The coefficients in Table 3 show that for every 1 degree of change in the independent variable (no provider availability) there is a .054 change in not receiving mental health services (receiving mental health services is measured by the "not selected" response). The association of mental health services and provider characteristic insensitivity is illustrated in Tables 4-6.

Table 4

Model Summary for Provider Insensitivity

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.270[a]	.073	.056	.451

a. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of provider insensitivity

Table 5

ANOVA for Provider Insensitivity

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.864	1	.864	4.253	.044[b]
	Residual	10.975	54	.203		
	Total	11.839	55			

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?
b. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of provider insensitivity

Table 6

Coefficients for Provider Insensitivity

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.500	.113		13.309	.000
	Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitivity	.275	.133	.270	2.062	.044

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

Table 5 provides a *p*-value of .044, which indicates statistical significance and acceptance of the model summary for provider characteristic of insensitivity (Table 4). This indicates that the characteristic of provider insensitivity impacts mental health service utilization. The model summary in Table 4 provides an *R*-squared value of .073, which indicates that approximately 7.3 of those not receiving mental health services is determined by provider characteristic of insensitivity. The coefficients in Table 6 inform that for every degree of change in the independent variable (provider insensitivity) receiving mental health services changes by .275. The measured response for receiving counseling or psychotherapy is "not selected." These determination values appear low when evaluating the percent of impact. However, *R*-squared values are often low when predicting a complex field like human behavior.

Statistical analysis for the second research question "Is perceived sexual orientation discrimination associated with the level of mental health services utilization in rural LGBT communities?" is illustrated in Table 7 and Table 8. The tables answer the research question and provides information to reject the hypothesis that there is an association between perceived discrimination and mental health services utilization. The association of perceived discrimination and mental health services utilization is seen in Tables 7 and Table 8.

Table 7

Model Summary for Perceived Discrimination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.018[a]	.000	-.008	.413

a. Predictors: (Constant), Have you ever experienced discrimination by a doctor or other health care provider due to your transgender/sexual orientation?

Table 8

ANOVA for Perceived Discrimination

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.006	1	.006	.037	.848[b]
	Residual	19.652	115	.171		
	Total	19.658	116			

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

b. Predictors: (Constant), Have you ever experienced discrimination by a doctor or other health care provider due to your transgender status/sexual orientation?

Table 6 provides a *p*-value of .848 which indicates no statistical significance and rejection of the model summary for Perceived discrimination and its association to mental health services utilization (Table 5). The above tables inform that perceived discrimination is not a rural environmental factor that impacts mental health services utilization. However, the data analysis found that when provider insensitivity is coupled with ridicule (sometimes seen as discrimination) there is an association of not receiving mental health services. Tables 9-11 illustrate these results.

Table 9

Model Summary for Provider Insensitivity and Ridicule

Model Summary

Model	R Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of ridicule = Selected (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661[a]	.437	.402	.331

a. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitivity

Table 10

ANOVA for Provider Insensitivity and Ridicule

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.361	1	1.361	12.444	.003[c]
	Residual	1.750	16	.109		
	Total	3.111	17			

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?
b. Selecting only cases for which Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of ridicule = Selected
c. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitive reaction

Table 11

Coefficients for Provider Insensitivity and Ridicule

Coefficients[a,b]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.000	.234		4.276	.001
	Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitive reaction	.875	.248	.661	3.528	.003

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

b. Selecting only cases for which Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of ridicule = Selected

Table 10 provides a *p*-value of .003 which indicates statistical significance and acceptance of the model summary for provider insensitivity and ridicule (Table 9). This indicates that the characteristic of provider insensitivity coupled with provider ridicule impacts mental health services utilization. The model summary in Table 9 provides an *R* squared value of .437. This informs that approximately 44% of not receiving mental health services is determined by provider characteristic of insensitivity and ridicule. The coefficients in Table 11 inform that for every degree of change in the independent variable (provider insensitivity and ridicule) receiving mental health services changes by .875. The measured response for receiving counseling or psychotherapy is “not selected”

so reading the coefficients values indicates that not receiving mental health services increases by .875 for every degree of increase in insensitivity and ridicule.

A multiple regression analysis of the data also found that when provider insensitivity is coupled with hostility (sometimes seen with discrimination) there is an association of not receiving mental health services. Tables 12-14 illustrate these results.

Table 12

Model Summary of Provider Insensitivity and Hostility

Model Summary

Model	R Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of hostile reaction = Selected (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697[a]	.486	.462	.284

a. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitivity

Table 13

ANOVA for Provider Insensitivity and Hostility

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.607	1	1.607	19.882	.000[c]
	Residual	1.697	21	.081		
	Total	3.304	22			

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

b. Selecting only cases for which Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of hostile reaction = Selected

c. Predictors: (Constant), Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitivity

Table 14

Coefficients for Provider Insensitivity and Hostility

Coefficients[a,b]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.250	.142		8.793	.000
	Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of insensitive reaction	.697	.156	.697	4.459	.000

a. Dependent Variable: Counseling or psychotherapy - Have you received this service?

b. Selecting only cases for which Why Very Uncomfortable/Uncomfortable discussing health care needs - Fear of hostile reaction = Selected

Table 13 provides a *p*-value of .000 which indicates statistical significance and acceptance of the model summary for provider characteristic (insensitivity and hostility from Table 12). This indicates that the characteristic of provider insensitivity coupled with provider hostility impacts mental health services utilization. The model summary in Table 12 provides an *R* squared value of .486. This informs that approximately 49% of not receiving mental health services is determined by provider characteristic of insensitivity and hostility. The coefficients in Table 14 inform that for every degree of change in the independent variable (provider insensitivity and hostility) receiving mental health services changes by .697. The measured response for receiving counseling or psychotherapy is "not selected" so reading the coefficients values indicates that not receiving mental health services increases by .697 for every degree of increase in insensitivity and hostility.

Summary

The results and findings section provide the data that answers the research questions for this study. No statistically significant association was found between perceived discrimination and the use of mental health services by LGBT individuals in rural areas when evaluated singularly. However, additional models and statistics show a correlational relationship between mental health services utilization and the provider characteristic of insensitivity. When insensitivity is coupled with ridicule or hostility (a potential form of discrimination), it impacts utilizing mental health services by LGBT individuals in rural areas. I also found a statistically significant relationship between

mental health services utilization and the lack of mental health service providers in the area. The following section will suggest how these results can be useful in professional practice. How these results can impact social change will also be discussed in the following section.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

Individuals who identify as LGBT have rates of mental health issues that are double the rates of heterosexuals but have shown lower rates of mental health service utilization in urban and large metropolitan areas (National Alliance of Mental Illness, 2017). Previous research also shows higher suicide ideation and attempts in rural areas versus the rates in urban and metropolitan areas (National Alliance of Mental Illness, 2017). The purpose of the study was to evaluate rural environmental factors that impact mental health services utilization by individuals who identify as lesbian, gay, bisexual or transgender. I used a nonexperimental, quantitative design with secondary analysis of primary data from previous research. The goal of the study was to determine the relationship between perceived discrimination and mental health services utilization as well as provider availability and characteristics and mental health services utilization.

Using logistic regression analysis, I determined no statistically significant relationship between perceived discrimination and mental health services utilization when perceived discrimination was evaluated singularly. However, I found a statistically significant relationship when provider ridicule or hostility (often related to discrimination) was coupled with provider insensitivity in multiple regression. Analysis of the data showed a correlational relationship between provider insensitivity and decreased mental health services utilization.

This chapter also includes an interpretation of the results that connect to the data analysis. The limitations and recommendations of the study follow. The study is

concluded with how this study can benefit and refine medical practice and improve mental health outcomes for LGBT in rural communities.

Interpretation of the Findings

The results show that LGBT individuals' utilization of mental health services are not impacted when there is perceived discrimination. The *p*-value was > .05, which means that the null hypothesis of no association between perceived discrimination and mental health services utilization is accepted. This result disconfirms previous research that has indicated discrimination to be a barrier to seeking mental health care in urban areas for LGBT people. However, these results extend the previous literature by providing information as it relates to rural areas.

Provider insensitivity was found to be a determining factor in mental health services utilization in the LGBT community in rural areas. The variable of receiving psychotherapy or counseling was measured with "not selected or not receiving" as the affirmative for measurement. This means the data analysis shows provider insensitivity has a positive correlation to individuals not receiving mental health services. These results are framed in the minority stress model that shows the fear of provider insensitivity is a determinant of health seeking behaviors. These results confirm similar results noted by Bonvinci (2017) that support the need for specialized sensitivity training. These results also extend the previous literature by providing information as it relates to rural areas.

I also found that the lack of provider availability in the area is a determining factor in mental health services utilization. Like provider sensitivity, lack of mental

health service providers in the area has a positive correlation to individuals not receiving mental health services. These results are framed in Andersen's healthcare utilization model that suggests that predisposing factors like geographical location and sexual orientation are determinants of the utilization of health services. These results confirm access issues that have been noted as a barrier in previous research (see Romanelli et. al., 2017). Again, these results extend the previous literature by providing information as it relates to rural areas.

Though discrimination on its own was not found to impact mental health services utilization when ridicule and hostility (often signs of discrimination) are coupled with provider insensitivity, the data shows that these are determining factors on mental health service utilization in rural communities for LGBT individuals. The more insensitivity and ridicule the LGBT individual fears, the less they are utilizing mental health services. These results are framed in the minority stress model that shows the fear of provider insensitivity, ridicule, and hostility determine health seeking behaviors. The results confirm that fear issues and negative experiences of LGBT people deter them from seeking mental health care (Bialer et al., 2017). Further, these results indicate a gap in practice for provider availability and cultural competence and extend the previous literature by providing information for rural areas.

Limitations of the Study

The limitations of this study are the generalizability outside of the rural population of Virginia. The original data collected was completed on less than half of the counties in the state. The respondents available to sample were only a third of the total

respondents. This limits the study on the power of the results and the ability to link the results to a broader population. The study is also limited by maturation of the data. Health care and social norms change rapidly, and data collected more than five years ago threatens the meaningful use of the collected data. Another limitation is LGBT were studied together as one. While these individuals may have similar experiences because of the marginalization they experience, they also have experiences that differ as it relates to social support and acceptance.

Recommendations

It is recommended that additional studies are completed to gather data on larger populations in multiple rural areas in multiple states. This would give a greater degree of generalizability to broader populations. I also recommend up to date collection of data to determine if anything has changed in reference to access. With the rise of telehealth, the ability of receiving care may not be as difficult as it was in previous years. I recommend sectioning out the groups and doing a comparison analysis to see the degree in which each group experiences the barriers. Another key recommendation is analyzing the individual identities based on education. The degree of education and literacy could be a determinant on how experiences are perceived. This helps providers and other stakeholders understand how to develop policies and practices that are specialized in meeting the needs of the individual group.

Implications for Professional Practice and Social Change

This study confirms a gap in cultural sensitivity and competence. The findings support the need for additional cultural sensitivity training of health care providers in the

care of individuals in the LGBT community. The Affordability Care Act has linked provider compensation to quality outcomes. This study encourages the need for the quality metrics to be extended to the mental health arena. Compensation should be directly linked to patient satisfaction in the areas of sensitivity and compassionate care. The fear of insensitivity, hostility and ridicule discourage people in LGBT communities from receiving needed mental health services. The results indicate a need for organizations to invest in and enforce sensitivity training that encourages mental health services utilization and help improve mental health outcomes. LGBT individuals need care throughout the continuum of health care services and there is a mental health component to all care. Increased resources for mental health care and mandated training can promote health service providers comfort in delivering care. Exuding an energy of acceptance and support can help build relationships and foster environments that encourage LGBT individuals to seek mental health care. This level of support and acceptance can change the trajectory of LGBT lives who are on negative mental health paths

Allocating additional resources to health service organizations for telehealth is an additional way to improve practice. Marketing those services so that rural LGBT consumers are aware of the service will help provide greater access. Provider engagement in extending community support can improve practice and mental health services utilization by decreasing fears of a negative experience. Therapy has been shown to decrease suicide rates (NAMI, 2017). Improving sensitivity training, engagement and access can lower suicide rates in LGBT communities. These areas of

social change that can improve the health care of LGBT and improve mental health outcomes.

Conclusion

An individual who identifies as lesbian, gay, bisexual, or transgender experiences is considered a member of a minority group. These individuals experience a lack of support and acceptance in many communities. Reports of mistreatment due to identifying as a member of this community has been reported when these individuals seek health care. Health care is regarded as a place to receive care for whatever ails a person. The name alone implies that individuals who need help will get the care they need when engaging health care providers. The research shows that this is often not the case for LGBT individuals. The rates of mental health issues for this group is higher than heterosexuals and includes suicide ideation and attempts. Previous research in urban areas as well as this research from the rural environment indicates a direct relationship of the lack of mental health seeking behaviors and provider characteristics and availability. As a health care community, and society at large it is our duty to mitigate the barriers to mental health care for this minority group and stimulate and strengthen their utilization of mental health services. This is necessary to improve the quality of life for many and reduce lives lost to suicide.

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