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A Three Article Study Examining Sexual and Gender Minority Competency of Health Service Providers

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A THREE ARTICLE STUDY EXAMINING SEXUAL AND GENDER MINORITY

COMPETENCY OF HEALTH SERVICE PROVIDERS

by

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ABSTRACT

A THREE ARTICLE STUDY EXAMINING SEXUAL AND GENDER MINORITY
COMPETENCY OF HEALTH SERVICE PROVIDERS

Corrine N. Wilsey
Old Dominion University, 2020
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Sexual and gender minority (SGM) individuals endure a number of health disparities, such as higher rates of violence, mental health conditions, and more medical conditions. These disparities are exacerbated by the fact that SGM individuals face issues such as accessing health insurance, social support programs, and health service providers who are knowledgeable about SGM health issues. Certain health service provider governing organizations (i.e., the American Psychological Association, the Association of American Medical Colleges, and the Gay and Lesbian Medical Association) have recognized the need for guidelines regarding SGM care in recent years and published guidelines for health service providers regarding culturally competent care of SGM clients. SGM individuals represent a highly stigmatized and understudied population in regard to health service education and training.

The primary purpose of this dissertation was to understand health service providers SGM competency by developing a measure (the HCAF-SGM), examining theories (Dual Process Model of Prejudice and SIT) that may be related to SGM competency, and identifying correlates of SGM competency. Study one of the dissertation was a systematic review that examined rates and correlates of health service providers competency working with SGM individuals. Study two of the dissertation was a review of a psycho-educational training with military sexual assault victim advocates (SAVAs) serving SGM victims. Study three of the dissertation developed and assessed a measure of health service provider SGM competency.

Study one found that correlates of SGM health services are understudied. The need for a study that tested theory-based explanations of health service competency was identified. Additionally, the necessity of developing a measure that can be used across health service disciplines and that is inclusive of all SGM persons (including BDSM-practitioners) was a major finding of study one. Study two demonstrated the unique challenges when conducting research with specialty groups (i.e., the military). The need for researching transgender specific prejudice in order to understand the full realm of anti-LGBT prejudice was identified in study two, as the measure of prejudice specifically looked at prejudice against gay men and lesbian women. Study three suggested that health care providers view their competency regarding SGM individuals in a holistic manner, without differentiating between knowledge, attitude, and skill. Study results showed promise for the validity of the HCAF-SGM measure developed for the study. The measure was found to be associated with one construct of the Dual Process Model of Prejudice (RWA) and social identities that were salient to the topic being studied (i.e., healthcare professional and sexual and gender minority).

This dissertation is dedicated to my mom. I would not have made it this far without your support.

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Last, but not least, to Jeff, thank you for moving to another state with me when I was accepted into Old Dominion. Without complaint, you would make sure that dinner was cooked on days when I had late classes, and it was never a problem if I had to do homework on a Saturday. You listened to me talk about my research and you attended conferences with me, as a show of support. Thank you for being my biggest fan.

To Patches and Vader, thank you for reminding me that sometimes you just need to cry and snuggle with a puppy. You remind me to take time away from what seems like the most important thing in the world, in order to have a little more joy.

NOMENCLATURE

SGM	Sexual and Gender Minority
SOGI	Sexual and Gender Identity Minority
LGB	Lesbian, Gay, and Bisexual
LGBT	Lesbian, Gay, Bisexual, and Transgender
LGBTQIA	Lesbian, Gay, Bisexual, Transgender, Queer/Questioning/Intersex, Asexual
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, and Other
TGNC	Transgender and Gender Non-conforming
DSD	Differences in Sex Development
BDSM	Bondage, Dominance, Sadomasochism, & other alternative sexuality
KAS	Knowledge, Attitude, and Skill
RWA	Right-Wing Authoritarianism
SDO	Social Dominance Orientation
SIT	Social Identity Theory
HCAF – SGM	Healthcare Competency Assessment Form – Sexual and Gender Minority Patients
SOCCS	Sexual Orientation Counselor Competency Scale
SAVA	Sexual Assault Victim Advocate
IOM	Institute of Medicine
APA	American Psychological Association
AAMC	American Association of Medical Colleges
GLMA	Gay and Lesbian Medical Association

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CHAPTER 1

INTRODUCTION

Background

Lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual, and other (LGBTQIA or LGBTQ+) individuals are typically classified under the umbrella of sexual and gender minority (SGM) (Mayer et al., 2008; PFLAG, n.d.). According to a research study done by a committee convened by the Institute of Medicine (2011) sexual and gender minority (SGM) persons endure a number of health disparities. Such disparities include, but are not limited to, higher rates of violence (e.g., Cramer, McNeil, Holley, Shumway, & Boccellari, 2012), mental health conditions (e.g., Borgogna, McDermott, Alta, & Kridel, 2019), and medical conditions (e.g., Scheer, Harney, Esposito, & Woulfe, 2019). Further affecting the health of SGM persons are issues such as difficulty accessing health insurance, social support programs, and trouble finding a health service provider who is knowledgeable about SGM health issues (HealthyPeople.gov, 2013; Lim, Brown, & Kim, 2014). Together, this minority group represents a highly stigmatized, yet understudied, vulnerable population with respect to health service education and training.

One potential cause of health service stigma may come from interactions with health service providers (Sabin, Riskind & Nosek, 2015). As such, providers' professional organizations have realized the need to address competency, i.e., knowledge, attitude, and skill (Frank et al., 2010; Wilsey, Cramer, Macchia, & Golom, 2020) in the realm of SGM health in the last decade (American Psychological Association, 2011; American Psychological Association, 2015; Rubin, 2015). For example, the APA guidelines cover the broad areas of therapists' attitudes, clients' relationships/families, issues of diversity, economic and workplace

issues faced by clients, and continuing education, training, and research on lesbian, gay, bisexual, transgender, and gender nonconforming issues. Research correlates of providers' competency regarding SGM patients will further elucidate the health services providers' abilities to care for these populations. This research can further enhance any discovered gaps in the educational preparation of culturally competent health professionals who can appropriately care for persons from all backgrounds, including SGM patients.

In an effort to understand how health service professionals define and assess competency, study one of this dissertation was a systematic review that summarizes and describes the existing literature regarding health service providers' competency working with SGM individuals. Study one (Wilsey et al., 2020) also identified known correlates of competency working with SGM patients. Results from the study suggest that the full definition of competency (i.e., knowledge, attitude, and skill) is not used consistently across studies; instead, one component of competency (most often knowledge) is usually assessed. Study results suggest that health service education needs to focus on developing skillsets, especially pertaining to SGM care, as many providers reported feeling underdeveloped in that area.

Study two (Cramer, Wilsey, Hinkle, Kukla, & Macchia, 2018) of the dissertation examined impacts of a psycho-educational training of SGM issues for military sexual assault victims' advocates (SAVA). In this training, military SAVA personnel were taught about the specific issues that affect SGM persons. SAVA personnel participated in the training and completed a number of pre- and post- questionnaires. Study results indicate that study participants gained SGM knowledge and rated the training favorably. Pre- and post- assessment indicate that training had no impact on sexual prejudice. This study is an example of the type of

training that utilizes some of the principles identified in the systematic review that are necessary for health service providers to be familiar with when working with SGM individuals.

Study three of this dissertation builds on studies one and two by creating, developing and validating a scale of health service providers' competency working with SGM patients. Therefore, an aim of this study is to develop a survey instrument measuring SGM competency that can be used across multiple health service professions. The study will implement an online single time-point survey for undergraduate and graduate social work students enrolled at the University of North Carolina at Charlotte, graduate nursing students enrolled at the University of North Carolina at Charlotte, graduate psychology students enrolled at Loyola University Maryland, graduate counseling students enrolled at the University of Cincinnati, and a number of online medical groups consisting of physical therapists, occupational therapists, medical, surgical, and mental health professionals. Social Dominance Orientation (SDO; Sidanius & Pratto, 1999) Right-Wing Authoritarianism (RWA; Altemeyer, 1998) and Social Identity Theory (SIT; Tajfel & Turner, 2010) frameworks will be explored as targets for future training and intervention. Part of the value in studying these specific theoretical frameworks is to explore if they are correlated with anti-SGM stigma.

Theoretical Backdrop

Herek's Stigma Framework. Most of the disparities in care that the SGM population receives are due to stigma concerning sexual and gender minority identity (Herek, 2016). According to Herek, Chopp, and Strohl (2007), stigma is defined as a society's shared belief through which behavior outside of the "norm" is degraded, condemned, and invalidated. At the population level, researchers have suggested that stigma represents a fundamental cause of health disparities (Hatzenbuehler, Phelan, & Link, 2013). Stigma at the societal level works by placing

the SGM population at a disadvantage and is generally separate from individuals' prejudices. Societal stigma works by presuming that everyone is heterosexual, thereby erasing SGM individuals from conscious decision-making, and when SGM individuals are acknowledged, they are problematized by the majority group (Herek et al., 2009).

At the interpersonal level, stigma is experienced or exhibited in three ways. First, *enacted stigma* occurs when an individual engages in behaviors such as subtle (e.g., jokes, language use) or overt (e.g., interpersonal violence/hate crime) discrimination in order to target someone due to their perceived sexual orientation or gender identity (Herek et al., 2009). As a result of enacted stigma, a second manifestation of stigma at the interpersonal level is *felt stigma*. Due to the knowledge or expectation that enacted stigma can occur under certain circumstances, felt stigma motivates individuals to use self-preservation techniques to avoid being labeled as an SGM. While felt stigma can be adaptive, it also has certain costs, as it can lead SGM individuals to conceal their identity which has psychological consequences (Herek, 2016; Herek et al., 2009). Finally, at the interpersonal level there is *internalized stigma*. This type of stigma leads to an individual accepting society's negative views of SGM individuals. When a heterosexual individual (e.g., heterosexual health service provider) adopts this viewpoint it may be known as *homophobia or sexual prejudice*, and when an SGM individual adopts this viewpoint, it may manifest as *internalized sexual prejudice* (Herek 2016; Herek et al., 2009). Sexual orientation minority patients are often aware of the stigma that they face in health service settings due to their sexual orientation, and may anticipate future experiences of discrimination, which often times leads to many patients choosing not to disclose their sexual orientation to their health service provider(s), which can have negative impacts on patients' health (Sabin et al., 2015).

This proposal seeks to quantify the nature of health service providers' knowledge, beliefs and perceived skills as a potential proxy for anti-SGM stigma in a health service context.

Herek's Stigma Model frames and evaluates the training described in study two (Cramer et al., 2018). For example, one section of the training covered the risk factors that SGM persons face when it comes to mental health conditions. This section of the training was introduced using the concept of "coming out" and explained how that is a life-long process for an SGM person, because they are constantly navigating whom, when, and how to share their identity. The training also evaluated victim advocate sexual prejudice and SGM health literacy, potential sources of Herek's concept of felt and enacted stigma The purpose of utilizing Herek's Stigma Framework is to illustrate how stigma can lead to poor health outcomes for an SGM person. Germane to the primary project in this proposal, Herek's concept of enacted stigma again applies, in that the purpose of this research is to develop a measure of healthcare provider competency. Low provider competency, for instance high SGM stigma or low knowledge, may serve to cause stigma and anticipation of negative health care experiences for SGM persons (Herek, 2016).

Dual Process Model of Prejudice. The third study in this project also seeks to identify correlates of anti-SGM stigma with the hopes of developing targeted interventions in the future. As such, the study will test tenets of an established theory-based explanation of prejudice, the Dual Process Model of Prejudice (Duckitt & Sibley, 2006; Duckitt & Sibley, 2010). An important part of the Dual Process Model of Prejudice is a person's sociopolitical attitudes defined by social dominance orientation (SDO; Sidanius & Pratto, 1999) and right-wing authoritarianism (RWA; Altemeyer, 1998). SDO is an attitudinal structure that encapsulates the support an individual gives to the dominance of certain groups over others based on factors such as sexual orientation, gender, race, ethnicity, etc. (Sidanius & Pratto, 1999). Essentially, people

who are high in SDO tend to prefer intergroup relationships that are unequal in power and lead to

their group dominating another (Sidanius & Pratto, 1999). RWA, comprised of three related

attitudes reflective of authoritarianism, represents the extent to which individuals feel that

authorities should be followed instead of challenged (Altemeyer, 1998). People who tend to be

high in RWA express beliefs in coercive social control, obedience and respect for authority, and

confirmation to traditional moral and religious values (Altemeyer, 1998). Research has shown

that SDO and RWA positively predict generalized prejudice (McFarland, 2010). Research has

also suggested SDO (Jones, Brewster, & Jones, 2014; Poteat & Anderson, 2012) and RWA

(Whitley & Lee, 2000; Cramer et al., 2013) are among the strongest predictors of SGM

prejudice.

   Social Identity Theory. Social Identity Theory (SIT) suggests that society consists of

various group identities (e.g. American, Christian, Physician) in varying degrees (Tajfel &

Turner, 2010). SIT defines in-group and out-group dyads (e.g., heterosexual-SGM; medical

provider-patient). The group a person feels they belong to is considered an in-group and people

are most often motivated to view their in-group positively and their out-groups negatively (Stets

& Burke, 2000). Major, Mendes, and Dovidio (2013) expanded on SIT and found that key

features of group relations and dynamics (such as social categorization) influence how members

of high-status groups perceive, feel about, and behave toward members of low status groups.

These behaviors can lead to disparities in healthcare because the health service provider is a

member of the high-status group (e.g., by virtue of occupation, race, gender) and may exhibit

explicit or implicit bias toward patients of lower status groups (e.g., patient, SGM). While no

studies were found that looked at how SIT affected the care of SGM patients by health service

providers, McCalla (2018) utilized SIT in a study that aimed to reduce workplace bullying of

SGM employees. The study concluded that workplace policies should be implemented which protect all employees from bullying behavior (McCalla, 2018).

The Problem

Despite a clear need to address health service provider SGM competency, as well as potential theoretical models that may help explain competency, there is a general lack of literature addressing health service provider competency or theory-based correlates. Wilsey et al. (2020) conducted a systematic review of the literature to identify whether a standardized competency measurement tool exists across health service disciplines regarding SGM patients. Previous literature had not examined theory-based correlates of health service providers' competency with SGM patients. The literature also suggests that providers often overestimate their level of competence (e.g. Boysen & Vogel, 2008; Israel & Hackett, 2004; Whitman & Han, 2017), necessitating a structured approach to assessing such competency toward design of robust training programs.

Purpose

Based on the identified problem areas, there are several purposes of this dissertation, primarily focusing on health service provider competency with SGM patients. The first purpose is to systematically review the literature to examine the state of health service provider's competency working with SGM patients and to determine if a standardized definition of competency and measurement tool exists across health service disciplines. The second purpose is to develop and validate measure(s) of competency for all health service providers that assess SGM-related care. The third purpose is to identify gaps, needs, and drivers of health service provider SGM-related competency toward the long-term goal of implementing competency-based training.

Multiple groups of health service providers are being targeted as the participant group in the study for several reasons. First, previous research has shown that competency surveys tend to focus on mental health professionals only (Wilsey et al., 2020). No other work was identified that addresses multiple health service providers knowledge, attitudes, and skills working with SGM patients. Thus, a gap in the literature concerns the assessment of additional health service providers' competency with SGM patients. Second, the purpose of this study is to develop a survey instrument that can be used across multiple health service professions and utilizes all components of competency (i.e., knowledge, attitude, and skill). Development of a single SGM-competency measure will allow for more generalizability across research results in the future, as there will be a standardized measure.

Experimental Aims and Hypotheses

Aim 1: Develop a valid and reliable SGM Health Professions Competency Survey that assesses health service provider SGM-related competency.

> Hypothesis 1a: The Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM) will yield three subscales: knowledge, attitudes, and skills.
>
> Hypothesis 2b: Subscales will have acceptable internal consistency.

Aim 2: Identify theory-based (i.e., SDO, RWA, and SIT) correlates of SGM competency.

> Hypothesis 2a: As health service providers display higher levels of SDO they will display lower levels of SGM-competence.
>
> Hypothesis 2b: As health service providers display higher levels of RWA they will display lower levels of SGM-competence.

Hypothesis 2c: As health service providers display greater majority social identities (e.g., heterosexual, health service provider) they will display lower levels of SGM-competence.

Aim 3: Testing SDO, RWA, and SIT can identify gaps and needs in provider/student SGM competency and related correlates toward the goal of implementation and evaluation of a future SGM competency-based training for healthcare providers.

Hypothesis 3a: Controlling for covariates, SDO will explain significant and moderate sized variance in provider SGM-related competency.

Hypothesis 3b: Controlling for covariates, RWA will explain significant and moderate sized variance in provider SGM-related competency.

Hypothesis 3c: Controlling for covariates, social identity will explain significant and moderate sized variance in provider SGM-related competency.

Operational Definitions

Sexual and Gender Minority (SGM): Individuals, who identify as lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual, and other (LGBTQIA or LGBTQ+; Mayer et al, 2008; PFLAG, n.d.).

Competency: The integration of knowledge, attitudes, and skills that allow a health service provider to perform their job (Kak et al., 2001). Health professionals having the required knowledge, attitudes and skills to do well in a specific job role.

Health Service Provider: Individuals working within the health service field as a care provider (e.g., physician, nurse, psychologist, social worker, etc.).

Stigma: Society's shared belief through which behavior outside of the "norm" is degraded, condemned, and invalidated (Herek, Chopp, & Strohl, 2007).

Enacted Stigma: Occurs when an individual engages in behaviors such as subtle (e.g., jokes, language use) or overt (e.g., interpersonal violence/hate crime) discrimination in order to target someone due to their perceived sexual orientation or gender identity (Herek et al., 2009).

Felt Stigma: Occurs because of enacted stigma; motivates individuals to use self-preservation techniques to avoid being labeled as an SGM (Herek, 2016; Herek et al., 2009).

Internalized Stigma: Leads to an individual accepting society's negative views of SGM individuals (Herek, 2016; Herek et al., 2009).

Dual Process Model of Prejudice: A model of prejudice integrating personality traits and social attitudes (Duckitt & Sibley, 2006; Duckitt & Sibley, 2010).

Social Dominance Orientation (SDO): An attitudinal structure that encapsulates the support an individual gives to the dominance of certain groups over others based on factors such as sexual orientation, gender, race, ethnicity, etc. (Sidanius & Pratto, 1999).

Right-Wing Authoritarianism (RWA): Represents the extent individuals feel that authorities should be followed instead of challenged (Altemeyer, 1998).

Social Identity Theory (SIT): Society consists of various group identities (e.g. American, Christian, Physician) in varying degrees; defines in-group and out-group dyads (Tajfel & Turner, 2010). In this study, the following dyads are used: healthcare professional-medical patient; sexual orientation majority-sexual orientation minority; gender identity majority-gender identity minority; American-Immigrant; Christian-Jewish; Muslim-Atheist/Agnostic.

Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM): Comprehensive tool developed for this study to capture health service providers'

perceived skills working with SGM patients. The measure contains 23 items in total derived

from the APA (2011; 2015) and the American Association of Medical Colleges' (AAMC, 2014).

Sexual Orientation Counselor Competency Scale (SOCCS): 31-item measure designed to assess

the attitudes, skills, and knowledge of counselors who work with lesbian, gay, and bisexual

clients (Bidell, 2005). The measure was revised to be inclusive of gender minority individuals as

well as sexual minority individuals for use in this study.

Assumptions

For Chapter II

1. Authors accurately reported the results of their research.

2. Authors thoroughly described the survey process and methods.

3. Systematic review tool was based on prior literature.

For Chapter III

1. Military SAVA personnel were attentive to training.

2. Military SAVA personnel were honest when responding to survey questionnaires.

For Chapter IV

1. Participants will remain engaged while responding to the survey.

2. A variety of healthcare practices will be represented by the participants.

3. Participants will be honest and accurate when responding to the survey questions.

Limitations

For Chapter II

1. Variation of authors' definitions of competency.

2. Variation of authors' definition of SGM.

3. Heterogeneity of outcome variables between studies.

4. Assessment of only three databases for articles to include in the systematic review.

For Chapter III

1. No comparison group for the SAVA training.

2. Limited sample size.

3. Training failed to address trans-specific prejudice as a part of anti-LGBT prejudice.

For Chapter IV

1. Participant self-report on all study questionnaires.

2. Partial evaluation of the Dual Process Model of Prejudice.

3. Partial evaluation of Social Identity Theory.

4. The sample may not represent as many health service professions as the author is hoping due to snowball sampling method.

Delimitations

For Chapter II

1. Articles included in PsycInfo/PsycArticles, PubMed/MedLine and Google Scholar.

For Chapter III

1. Participants were military SAVA personnel stationed in Eastern Virginia.

For Chapter IV

1. Participants are health services students or providers.

CHAPTER II

LITERATURE SUMMARY

ARTICLE ONE

DESCRIBING THE NATURE AND CORRELATES OF HEALTH SERVICE

PROVIDERS' COMPETENCY WORKING WITH SEXUAL AND GENDER

MINORITY (SGM) PATIENTS: A SYSTEMATIC REVIEW

See: Wilsey, C. N., Cramer, R. J., Macchia, J. M., & Golom, F. D. (2020). Describing the

nature and correlates of health service providers' competency working with sexual and

gender minority (SGM) patients: A systematic review. *Health Promotion Practice.*

Abstract

Disparities in the health services delivered to sexual and gender minority (SGM) individuals are
widespread across health service disciplines. Many health service providers do not have the
knowledge, comfort, or skills necessary to provide health services to SGM individuals. The
objective of the current systematic review was to review the correlates of competency (defined as
knowledge, attitude, and skill) that health service providers possess for working with SGM
individuals. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses
(PRISMA) was utilized to guide search and reporting strategies. PsycInfo/PsycArticles,
PubMed/Medline, and Google Scholar databases were searched to find studies that addressed
health service providers' competency working with SGM individuals. There were 31 studies
included in the review. Approximately half of the studies utilized the full definition of
competency (knowledge, attitude, and skill). The most common competency assessed was
knowledge and the least common was skill. The majority of the studies addressed health service
providers in the social sciences. Health service education needs to emphasize competency

working with SGM individuals. Of particular importance is developing skillsets, as many

providers reported that they did not have the skills necessary to provide culturally competent

health services to SGM individuals.

Background

Lesbian, gay, bisexual, transgender, queer and other sexual and gender minorities

(LGBTQ+) endure a multitude of health disparities such as mental health, HIV and other

conditions (Herek, 2016; Institute of Medicine, 2011). Likewise, alternative sexuality (i.e.,

Bondage, Dominance, Sadomasochism, & other alternative sexuality [BDSM]) interests and

practice can be thought of as reflective of a sexual minority orientation (Gemberling, Cramer, &

Miller, 2015). As these minority persons also experience stigma and health disparities (Wright,

2006, 2010), we also include them in the present review. As such, we use the term LGBTQ+ to

refer to sexual orientation and gender minority persons, whereas we employ sexual and gender

minority (SGM) to refer to the entire spectrum, inclusive of BDSM community members.

Providers' negative attitudes toward LGBTQ+ patients can negatively impact patient

health services (IOM, 2011), functioning as sexual- and gender- based stigma (Herek, 2016;

Herek, Chopp, & Strohl, 2007). A contributing factor to the disparities is due, in part, to a lack of

knowledge and comfort on the part of the health service provider (Lim, Brown, & Kim, 2014). A

complicating factor in treating any LGBTQ+ patient is that these individuals are often treated as

a single group based on sexual orientation, instead of as an individual with personal and specific

health issues (IOM, 2011). The purposes of this paper are to (1) summarize and describe the

literature regarding competency (i.e. knowledge, attitude, and skill) of health service providers

for working with SGM individuals, and (2) identify known correlates (e.g. demographics,

attitudes) of competency concerning SGM persons, in an effort to eliminate health disparities,

achieve health equity, and address social determinates of health for SGM patients. To contextualize these goals, we first review definition and measurement of SGM competency, followed by linking this literature to the importance for health service provision.

SGM Healthcare Competency

A factor affecting the health services delivered to LGBTQ+ individuals is their recognition of the negative attitudes that health service providers hold (Sabin, Riskind, & Nosek, 2015). Many LGBTQ+ patients will delay seeking services in order to avoid the stigma they face in health service settings, and, when LGBTQ+ patients do seek services, they tend not to disclose their sexual orientation or gender identity to their health service provider (Sabin et al., 2015). One reason that sexual minority individuals avoid disclosing their sexual orientation is because health service providers are more likely to express discomfort toward same-sex sexual behaviors (Matharu, Kravitz, McMahon, Wilson, & Fitzgerald, 2012). Transgender and gender nonconforming (TGNC) individuals may also delay seeking services for similar reasons. TGNC patients are frequently aware of the discomfort health service providers feel when treating them (Unger, 2015). Similarly, it has been found that individuals who identify as part of the BDSM community have been negatively affected by discrimination and stigma (Wright, 2006). One study found that disclosing an interest in BDSM to a mental health professional could result in several negative effects, including: biased health service such as an insistence that the patient give up BDSM if they wish to continue treatment, insistence that BDSM is unhealthy and abusive, and the assumption from the mental health professional that the interest indicates a history of abuse (Kolmes, Stock, & Moser, 2006).

A majority of the health service literature defines competency as knowledge, attitude, and skill (Kak, Burkhalter, & Cooper, 2001). There are several surveys that exist to measure the

competency of those working with LGBTQ+ individuals, although most are general attitude measures (non-specific to healthcare situations or settings). Bidell (2005) developed the Sexual Orientation Counselor Competency Scale (SOCCS) to assess the attitudes, skills, and knowledge of counselors who work with lesbian, gay, and bisexual patients. Bidell (2005) used several scales to create the SOCCS. The Multicultural Counseling Knowledge and Awareness Scale (MCKAS; Ponterotto, Gretchen, Utsey, Rieger, & Austin, 2002) is a self-report inventory that assesses the multicultural counselor competency of respondents and consists of knowledge and awareness subscales. The Counselor Self-Efficacy Scale (CSES; Melchert, Hays, Wiljanen, & Kolocek, 1996) is a self-report scale that measures general knowledge and skill competency related to conducting individual and group counseling. The Attitudes Toward Lesbians and Gays (ATLG; Herek, 1998) is a self-report scale that measures general negative attitudes of respondents toward gay men and lesbians. As can be seen from this short summary, attitude and knowledge measures exist specific to mental health providers and general populations.

While there are numerous measures addressing knowledge, attitude, and skills for working with sexual minorities, there are fewer measures addressing competency related to gender minorities as well as BDSM-practitioners. O'Hara and associates (2013) revised the SOCCS (Bidell, 2005) to assess counselor awareness, knowledge, and skill for working with transgender individuals. All questions on the scale were changed to emphasize gender identity and transgender concerns instead of sexual identity and orientation concerns, which resulted in the Gender Identity and Counselor Competency Scale (GICCS; O'Hara et al., 2013). Measures for gender minorities have also been created by contrasting the gender identity scales to existing sexual orientation scales (Nagoshi et al., 2008). Most of the literature regarding competency with BDSM-practitioners has utilized study specific surveys (e.g. Kelsey, Stiles, Spiller, & Diekhoff,

2013; Stockwell, Hopkins, & Walker, 2017). Kleinpatz and Moser (2004) proposed a set of guidelines for therapists who work with BDSM-active patients. These guidelines could be utilized to inform a competency-based survey for health service providers working with BDSM-practitioners.

SGM-Related Competency in Health Services Context

LGBTQ+ individuals endure a number of health disparities due to the stigma associated with identities outside of the heteronormative and cisgender spectrum (Herek, 2016). Herek (2016) posited that the term *stigma* is a useful concept for understanding health disparities. The definition for stigma that Herek offers is "an undesired differentness within a specific social interaction or across many social interactions" (p. 397). The stigma does not come from any specific characteristic but from the meanings that society has attached to certain characteristics. Herek (2016) applied this concept to the experiences of LGBTQ+ individuals to define *sexual stigma* (all facets of stigma associated with same-sex desires, sexual behaviors, and relationships, as well as sexual minority communities) and *gender minority stigma* (stigma directed at non-normative gender identities, experiences, and expressions, as well as gender minority communities).

The research on stigma has grown, but it has taken various paths, making it difficult to realize the full significance of stigma's effect on health disparities. At the population level, it has been proposed that stigma meets the criteria for a fundamental cause of health disparities (Hatzenbuehler, Phelan, & Link, 2013). A number of the disparities in services that LGBTQ+ patients receive are due to sexual and social stigma (Lim et al., 2014). These stigmas have resulted in a number of factors that affect the health of LGBTQ+ patients, such as legal discrimination when it comes to accessing health insurance, a lack of social support programs,

and a shortage of providers who are culturally competent about LGBTQ+ health issues and concerns (Lim et al., 2014). LGBTQ+ patients may delay seeking medical services because of the discrimination that they face in health service settings (Sabin et al., 2015). This is also known as enacted stigma (unfair treatment from others) and felt stigma (the shame that comes from expecting unfair treatment from others, which leads people to avoid seeking help).

Physicians often assume a patient is heterosexual if they do not state otherwise, which can lead to negative health outcomes for LGBTQ+ patients for numerous reasons, such as receiving inadequate services and feeling the need to lie about their identity (Guilfoyle, Kelly, & St. Pierre-Hansen, 2008). It also has been shown that health service providers who have negative attitudes toward same-sex behavior do not provide adequate services for sexual minority patients (Eliason & Schope, 2001). Disparities in communication and shared decision-making between the doctor and the patient are common when the patient identifies as an LGBTQ+ individual (Peek et al., 2016). The communication differences between the doctor and the patient may be one reason that minority health outcomes are worse than non-minority health outcomes. Studies also have shown that physician bias may influence the level of service provided to minority patients by influencing a physician's expectations of a patient's adherence to a treatment regimen (Peek et al., 2016). Provider attitudes can be implicit or explicit.

Stigma also affects BDSM-practitioners. For example, legal complications and interpersonal difficulties are common consequences of the stigma and discrimination against BDSM-practicing persons (Wright, 2010). Confusion for therapists exists regarding BDSM-practice due to the inclusion of sexual sadism and sexual masochism as paraphilic disorders in the Diagnostic and Statistical Manual of Mental Disorders (DSM) (American Psychiatric Association [APA], 2000). The publication of the DSM-5 specifies that a person does not qualify

for diagnosis of Sexual Sadism/Sexual Masochism paraphilic disorders if they are interested in

the behavior but are not significantly distressed or being caused dysfunction by that interest

(APA, 2013). Some practitioners of BDSM expect negative experiences with therapists, because

disclosing an interest in BDSM to a therapist can have stigma-based negative effects (Kolmes et

al., 2006). BDSM has a history of being stigmatized, but there is scarce research on how that

stigma affects individuals who identify as part of the BDSM community. What is known is that

individuals who identify as part of the BDSM community have been negatively affected by

discrimination and violence (Wright, 2006).

SGM Health Service Organization Guidelines

Two prominent health service organizations have released pertinent practice guidelines

concerning LGBTQ+ patient competency, suggesting the importance of the topic for health

service provision. The Association of American Medical Colleges (AAMC) released

comprehensive guidelines in November 2014 detailing how medical schools must teach caring

for: LGBTQ+, gender nonconforming, and differences of sex development (DSD) patients

(Rubin, 2015). The guidelines list 30 competencies (AAMC, 2014) that physicians must master

concerning LGBTQ+ health, and it also identifies a number of disparities that exist between

LGBTQ+ patients and non-LGBTQ+ patients. In 2011, the American Psychological Association

(APA, 2011) published a set of ethical guidelines for working with sexual minority patients

covering the broad areas of therapists' attitudes, patients' relationships/families, issues of

diversity, economic and workplace issues faced by patients, and continuing education, training,

and research on sexual minority issues. This was followed in 2015 by a set of ethical guidelines

for working with transgender and gender nonconforming (TGNC) patients covering general

areas of therapists' foundational knowledge and awareness, stigma and discrimination faced by

patients, patients' life span development, proper assessment, therapy and intervention, and continuing research, education, and training on TGNC issues (APA, 2015).

While a set of ethical guidelines does not exist for working with BDSM-practitioners, progress has been made in de-pathologizing the practice. When the DSM IV-TR (American Psychiatric Association, 2000) was published, Sexual Sadism and Sexual Masochism were included as Paraphilias for diagnosis under the category of sexual disorders or sexual dysfunctions. The publication of the DSM-5 (American Psychiatric Association, 2013) de-pathologized kinky sex (e.g. cross-dressing, fetishes, BDSM) and categorizes former paraphilias as Unusual Sexual Interests. The next step is for guidelines to be developed for kink-aware professionals to work with BDSM-practitioners.

Purpose and Aims

Health disparities endured by SGM individuals, coupled with a lack of empirical research concerning health provider competency and training, demonstrates a need to assess the competency of health service providers who work with SGM individuals. The current systematic review aims to (1) summarize and describe the literature regarding competency of health service providers to work with SGM individuals, and (2) identify known correlates of competency concerning SGM persons.

Methods

Search Strategy

Articles included in the current review were identified through searches of the following databases: PsycInfo, PsycArticles, PubMed, Medline, and Google Scholar. Each database was searched from January 1, 2000 to December 31, 2017. The reason for limiting the search to this time period is because the DSM IV-TR (American Psychiatric Association, 2000) was published

in 2000 and included the category of Gender Identity Disorder (GID). The DSM-5 (American Psychiatric Association, 2013) removed GID but included Gender Dysphoria. Because of the prominent shift in health professions discourse reflected by the elimination of GID, we elected to conduct a review within a contemporary time period.

Selection Criteria and Study Selection

PRISMA was utilized to guide search and reporting strategies of the current review (Moher, Liberati, Tetzlaff, & Altman, 2009). Articles were included if the article: (1) was empirical with human subjects published in a peer-reviewed journal; (2) focused completely on health service providers or health professions student samples; (3) addressed SGM-competency, and; (4) written in English. Search terms were created by identifying a list of topics and key words. There were three topics identified (type of health service provider; outcome; and SGM categories). The key words for each topic were as follows: Type of Health Service Provider (health care provider; psychologist; psychiatrist; social worker; counselor; nurse); Outcome (competency; knowledge; attitude; skill); SGM Categories (gay; lesbian; bisexual; transgender; queer; bondage; sadomasochism; dominance; BDSM; sexual minority; gender minority). Each key word from each topic was combined to create a unique search term. For example, "healthcare provider + competency + gay" was one search term. There were 264 search terms total. Each term was searched in PsychInfo/PsycArticles and PubMed/Medline. See Table II.1 for a full list of the target populations of the review. All studies did not report the same population sample characteristic information. Case studies, theses, dissertations, and non-peer reviewed articles were excluded to ensure rigor. Studies that focused on community-dwelling persons' attitudes toward SGM individuals as the target population also were excluded, as the population of interest was health service providers.

Table II.1. General Characteristics of Selected Studies

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Balkin et al. (2009)	111	USA	ATGL-R-S MAKSS-CE-R	Knowledge Skill	Counseling students and professionals.

19 of the participants were current graduate students.

90 of the participants were master's-level providers. | LG | Gender: 89 Women 21 Men 1 Unknown

Race: 94 White 6 Black 3 Asian American 2 Biracial 1 Latino 1 Native American

Average Age = 44.41 years | Counselors who are more rigid and authoritarian in their religious identity tended to exhibit more homophobic attitudes. Awareness of multicultural issues did not translate to less rigid beliefs in gender roles.

Majority of the sample (72%) reported identifying as Christian. |

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Beagan et al. (2012)	12	Nova Scotia, Canada	Semi-structured interview	Attitude	Nurses Bachelors and Master's level training	LGBTQ	Gender: 11 Women 1 Man Sexual Orientation: Heterosexual Work Experience: 10-20 years	Participants argued that sexual orientation and gender differences should not matter. Participant seemed anxious to avoid stereotyping by making assumptions. Differentiating between generalizations and stereotypes may assist nurses in their efforts to recognize social differences without harming/offending LGBTQ patients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Bidell (2005)	312	USA	SOCCS ATLG MCKAS CSES	Knowledge Attitude Skill	Undergraduate students; Master-level and doctoral-level counseling students; counselor educators; counselor supervisors	LGB	Gender: 235 Women 77 Men Race: 191 White 22 Black 33 Asian American 41 Latino 7 Biracial 4 Native American 14 Other Sexual Orientation: 85.3% Heterosexual 12.2% LGB 2.5% No Response Average Age = 31.9 years	The strong correlational and predictive relationship between the MCKAS and the SOCCS suggest that the theoretical process of defining and assessing counselor competence may be similar across different minority and oppressed groups. Results also show that skill competency is the lowest, suggesting that counselors are not being trained to work with LGB clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Bidell (2013)	23	USA	SOCCS LGB-CSI	Knowledge Attitude Skill	Master-level counseling students	LGBT	Gender: 16 Women 7 Men Race: 14 White 5 Latino 1 Black 1 Asian American 1 Native American 1 Biracial Sexual Orientation: Heterosexual Average Age = 35.48	A full credit graduate course can significantly improve counselling students' competency (especially skills and knowledge domains) when working with LGBT clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Bidell (2014a)	286	USA	MCKAS SOCCS	Knowledge Attitude Skill	Master- and doctoral-level counseling and psychology students. 211 Masters students 75 Doctoral students	LGB	Gender: 211 Female 75 Male Race: 179 White 40 Hispanic 21 Black 27 Asian American 16 Biracial 3 Native American Sexual Orientation: 87.4% Heterosexual 12.6% LGB Average Age = 32.5 years	Completion of multicultural counseling courses had a significant impact on students self-reported multicultural competency, but the impact did not increase after more than one class. Students who identify as a sexual minority report more competence working with LGB clients. Students with a strong politically conservative ideology reported the lowest level of competence working with LGB clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Bidell (2014b)	228	USA	SOCCS	Knowledge Attitude Skill	Master-level counseling students; Doctoral-level counseling educators; Counseling supervisors 160 Masters students 18 doctoral students 50 supervisors	LGB	Gender: 161 Female 67 Male Race: 144 White 27 Hispanics 21 Black 22 Asian American 10 Biracial 4 Native Americans Sexual Orientation: 85.1% Heterosexual 11.8% LGB 3.1% Did not answer Average Age = 35.18	More religiously conservative counselors had significantly lower levels of LGB competence.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Boysen et al. (2008)	105	Midwest USA	CCCI-R IAT	Knowledge Skill	Masters- and doctoral-level counseling students (Degrees offered in APA-accredited counseling psychology programs and CORE-accredited rehabilitation counseling)	LG	Exact samples for each program were not collected so as to ensure anonymity. The students in the study were mostly female, white, and heterosexual.	Students level of implicit bias toward LG clients was significantly higher than their reported multicultural competence (MCC). Unlike MCC which increased with level of education, implicit bias did not vary significant across education levels.
Braun et al. (2017)	46	California, USA	Transphobia scale; Transgender-specific medical knowledge questionnaire	Knowledge Attitude	Graduate health professions students (medicine, pharmacy, dentistry, advanced nursing practice, physical therapy)	T	Gender: 35 Female 9 Male 2 Transgender Race: 26 White 11 Asian American 6 Hispanic	An elective course on transgender health topics significantly improves health professions students' knowledge regarding transgender patients' health.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Brooks et al. (2013)	101	USA	IRI ARBS SOCCS	Knowledge Attitude Skill	Master- and doctoral-level counselors 27 Masters-level 68 Doctoral level	B	Gender: 74 Women 20 Men 1 Transgender Individual Race: 80 White 11 Asian American 2 Hispanic 1 Biracial 1 Black Sexual Orientation: 47% Heterosexual 53% LGBQ Average Age = 39.39 years	Counselors' attitudes towards bisexuality are a strong predictor of competency for working with bisexual clients. Counselors who believe that bisexuality is a stable sexual orientation believe themselves to be more competent to work with bisexual clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Carabez et al. (2016)	268	California, USA	HEI	Knowledge	Registered Nurses	LGBT	Gender, race, and age were not reported for participants.	Nurses lack knowledge in dealing with advance care directives for any patient, regardless of sexual orientation. Nurses lack awareness of the health service disparities that face LGBT patients.
Dispenza et al. (2016)	113	Southeast USA	GICCS SDS-17	Knowledge Attitude Skill	Psychologists and Mental health professionals 49.5% Doctoral level 50.5% Masters level	TGNC	Gender: 78% Women 22% Men Sexual Orientation: 75% Heterosexual 25% LGBQ Race: 47.8% White 31% Black 5.3% Asian 8% Hispanic	Provider identity contributes to competency working with TGNC clients. Identifying as a sexual minority or a racial/ethnic minority significantly increase counselor competency working with TGNC clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Eliason et al. (2004)	351	Iowa & Illinois, USA	ATGL	Knowledge Attitude	Substance Abuse Treatment Counselors	LGBT	Gender: Approx. 60% Women Race: 53% White (Chicago) 96% White (Iowa) 6% LGBT (Both Samples) Average Age = 41 years	Education about and exposure to LGBT people is insufficient to change attitudes. Attitudes toward bisexual and transgender individuals tend to be more negative than attitudes toward lesbians and gay men.
Erich et al. (2007)	150	Southern USA	Survey	Knowledge Attitude	Licensed social workers 112 MSWs 28 BSWs	T	Gender: 106 Women 43 Men 1 Transgender Individual Average Age – 45.66 years	The majority of social work students are not receiving education on TGNC clients. Students who do receive education, report a higher level of perceived competency working with TGNC clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Farmer et al. (2013)	468	Southeast USA	SOCCS MC-C	Knowledge Attitude Skill	Community counselors; School counselors; Counselor educators; Counseling graduate students	LGB	Gender: 393 Women 74 Men Race: 389 White 56 Black 8 Hispanic 8 Biracial 3 Native American 2 Asian American 1 Pacific Islander Sexual Orientation: 440 Heterosexual 28 LGB Average Age = 41.4 years	Counselors perceive themselves as most competent in their attitudes towards LGB clients and least competent in their skills with working with LGB clients. School counselors report the lowest levels of competence (in all domains) overall.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Grove (2009)	58	Great Britain	SOCCS	Knowledge Attitude Skill	Integrative counseling diploma students	LGB	Gender: 48 Women 10 Men Race: 53 White 2 Black 2 Asian 1 Biracial Sexual Orientation: 93% Heterosexual 7% LGB	Results suggest that knowledge and skills are associated with time spent in the program, with the sharpest increase seen in the first year of training. Participants' attitudes toward LGB clients are affected by reflection on their personal experiences.
Hancock et al. (2014)	10	USA	Two semi-structured interviews	Knowledge Attitude Skill	Mental health professionals	LGBT	Gender: 8 Women 2 Men Race: 8 White 2 Black Sexual Orientation: 8 Heterosexual 2 LGB	Majority of participants confirmed their perceived competency with sexual minority intimate partner violence victims (SMIPVV) was the product of their training.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Israel et al. (2004)	161	Southwest USA	Homophobia Scale; ATLG IHP KLGB	Knowledge Attitude	Masters-level counseling and social work students	LGB	Gender: 133 Women 26 Men 2 Unknown Race: 121 White 13 Hispanic 9 Black 5 Asian American 2 Native American Sexual Orientation: 150 Heterosexual 6 LGB Average Age = 34.25 years	The effect of an information intervention for students was significant improvement in knowledge about LGB individuals at post-test. Those students who received the attitude training reported significantly more negative attitudes about LGB individuals at post-test than those students who did not explore their attitudes.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Kelsey et al. (2013)	766	USA	Self-perceived competence to treat BDSM activity; Attitudes towards BDSM; Training/ education on sexual minorities	Attitude	Licensed psycho-therapists	BDSM practitioners	Gender: 437 Women 329 Men Race: 717 White 16 Asian American 14 Black 11 Hispanic 5 Native American 3 Biracial Average Age = 49.93 years	The majority of clinicians did not equate BDSM practice with psychopathology and believed that someone can engage in BDSM without emotional problems. A majority of clinicians did not think BDSM activities should be a target of therapy if the client did not specifically ask to have BDSM practices addressed. A majority of clinicians had received no exposure to BDSM during their formal graduate training.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Lawrence et al. (2008)	14	Washington, California, Illinois, New York, & Georgia, USA	Semi-structured interview	Knowledge Attitude	Licensed psycho-therapists In practice for an average of 17 years.	BDSM practitioners	Gender: 8 Women 6 Men Sexual Orientation: Mostly LGB Majority of the therapists have participated in BDSM themselves. All participants were White. Average Age = 49 years	The therapists interviewed expressed awareness of a need for cultural competence, nonjudgmental acceptance, knowledge of BDSM culture and practices, refusal to pathologize, and appropriate use of consultation and referrals when working with BDSM practitioners in a clinical setting.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
McGeorge et al. (2016)	741	USA	MHS R-SOCCS	Knowledge Attitude Skill	Licensed family therapists (members of the AAMFT)	LGB	Majority of the sample identified as female (57.4%), heterosexual (88%), and White (93%). Average Age = 54.29 years	Majority of participants believe it is ethical to refer LGB clients; however, most participants have not made such a referral. Participants that did refer based on sexual orientation demonstrated higher levels of negative attitudes towards the LGB community and lower levels of competence. Negative beliefs about the LGB community predicted the practice of referring as well as the belief that it is ethical to refer an LGB client.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
McGeorge et al. (2015)	762	USA	R-SOCCS MHS	Knowledge Attitude Skill	Marriage and Family Therapists (all members of the AAMFT)	LGB	Gender: 57.7% Women 40.6% Men 0.1% Transgender Individuals Majority of participants identified as heterosexual (88.1%) and White (92.7%). Average Age = 53.86 years	Male therapists are statistically more likely to have practiced conversion therapy and to believe that it is an ethical practice. Therapists who believe in conversion therapy report significantly lower levels of competence working with LGB clients and also hold more negative beliefs about LGB clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
O'Hara et al. (2013)	94	Southeast USA	GICCS	Knowledge Attitude Skill	Masters, specialist, and doctoral- level counseling students	T	Gender: 80 Female 1 Male 3 Female to Male Transgender Individuals Race: 71.3% White 16.1% Black 3.4% Biracial 5.7% Hispanic 3.4% Other 92% Heterosexual	The greater the exposure to gender diversity and transgender concerns, the more likely it is that counselors in training will evaluate their perceptions of competence and understanding positively.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Richardson et al. (2016)	152	Great Britain	Questionnaire assessing factors that influence comfort caring for LGBQ patients/ general attitudes; semi-structured interview	Knowledge Skill	Student nurses	LGBQ	Gender: 145 Women 7 Men Race: 61% had a non-White British ethnic origin Sexual Orientation: 96% Heterosexual Average Age = 25 years	Student nurses consider themselves to be accepting of LGBQ adolescents, however their level of comfort when it comes to providing services to this population is affected due to a lack of knowledge about LGBQ issues.
Rivers et al. (2017)	37	Southeast USA	SOCCS	Knowledge Attitude Skill	Masters-level counselor education students	LGBT	Gender: 30 Women 7 Men Sexual Orientation: 75.7% Heterosexual 18.9% LGB	University-sponsored LGBT ally training was effective in increasing knowledge, skills, and total scores on the SOCCS.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Rock et al. (2010)	190	USA	SOCCS ATS	Knowledge Attitude Skill	Master and doctoral-level Couple and Family Therapy students	LGB	Participants were mostly female (76.3%), White (81.1%), and heterosexual (88.4%). Average Age = 29.82 years	Participants reported feeling only somewhat competent to work with LGB clients and less than half had received training for working with LGB clients. The majority held positive attitudes toward LGB individuals. CFT programs should include specific training on affirmative therapy practices, as the level of affirmative training was directly related to participants' self-reported clinical competency working with LGB clients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Rutter et al. (2008)	38	Western USA	SOCCS	Knowledge Attitude Skill	Graduate counseling students	LGB	Majority of participants were female and White. Average Age = 27 years.	An LGB competency training program had a positive impact on the competency areas of knowledge and skills.
Spidsberg et al. (2011)	11	Norway	Semi-structured interview	Knowledge Attitude	Midwives	L	Gender, race, and age was not reported for participants.	Midwives' attitudes and behavior towards their patients is the most important predictor of the patient's experience.
Stockwell et al. (2017)	21	USA	Semi-structured interview; Post-interview questionnaire; Social/ Therapist Attitude Questionnaire; VAS; IRAP	Attitude	Graduate psychology students and practicing clinicians	BDSM-practitioners	Gender: 17 Women 4 Men Race: 13 White 3 Hispanic 2 Asian 2 Biracial 1 Unknown	IRAP scores were positively correlated with differences in smiling across the two interview conditions (BDSM-practitioners and non BDSM-practitioners).

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Unger (2015)	141	USA	Survey assessing provider experience with and education regarding transgender patients	Knowledge	Obstetrics and Gynecology providers	LGBT	Gender, race, and age was not reported for participants.	Less than half of providers had received education about LGBT patients while in school. More recently trained providers were not more likely to have received education. Transgender specific education is necessary, as providers were not likely to have received education about the health services needs of LGBT patients, but a majority were comfortable caring for LGB patients.

Table II.1. Continued

Study	Study Sample Size	Location of Study	Measure(s) of Competency	Competency Assessed	Type of Health Service Provider	SGM Categories	Study Population Characteristics	Major Findings
Vance Jr. et al. (2016)	20	California, USA	Curriculum evaluation	Knowledge	4th year med students, pediatric interns, psychiatry interns, nurse provider students	T	The majority of participants were female pediatric residents. Race, sexual orientation, and age were not reported.	A curriculum consisting of online modules and an observational experience in a pediatric gender clinic was effective at improving medical students' perceived knowledge of issues facing transgender youth.
Whitman et al. (2017)	53	USA	GICCS TGNC KA SDQ	Knowledge Attitude Skill	Psychiatrists; Psychiatry residents; Clinical and Counseling psychologists; Doctoral students; Licensed counselors; Licensed clinical social workers	TGNC	Gender: 73.6% Women 17% Men 1.9% TGNC 1.9% Genderqueer Sexual Orientation: 71.7% Heterosexual 26.4% LGBQA	Many clinicians are unfamiliar with TGNC issues and clients. Clinicians expressed an inappropriately high level of perceived competence regarding TGNC clients.

Note: L = Lesbian; G = Gay; B = Bisexual; T = Transgender; Q = Queer or Questioning; TGNC = Transgender and Gender Non-conforming; BDSM = Bondage, Domination, Submission/Sadism, and Masochism; MAKSS-CE-R = Multicultural Awareness, Knowledge, and Skills Survey – Counselor Edition – Revised; ATGL-R-S = Attitudes Toward Lesbians and Gay Men – Revised – Short; SOCCS = Sexual Orientation Counselor Competency Scale; ATGL = Attitudes Toward Lesbians and Gays; MCKAS = Multicultural Counseling Knowledge and Awareness Scale; CSES = Counselor Self-Efficacy Scale; LGB-CSI = Lesbian, Gay and Bisexual Affirmative Counseling Self-Efficacy Inventory; CCCI-R = Cross Cultural Counseling Inventory – Revised; IAT = Implicit Association Test; IRI = Interpersonal Reactivity Index; ARBS = Attitudes Regarding Bisexuality Scale; HEI = Health Care Equality Index; GICCS = Gender Identity Counselor Competency Scale; SDS-17 = Social Desirability Scale – 17; MC-C = Marlowe-Crowne Social Desirability Scale – Short Form C; IHP = Index of Homophobia; KLGB = Knowledge About Lesbian, Gay, and Bisexual Issues Scale; MHS = Modern Homophobia Scale; R-SOCCS = Revised – Sexual Orientation Counselor Competency Scale; ATS = Affirmative Training Scale; VAS = Visual Analogue Scale; IRAP = Implicit Relational Assessment Procedure; TGNC KA = Transgender and Gender Non-Conforming Knowledge Assessment; SDQ = Social Desirability Questionnaire

Quality Assessment

The quality of each article was assessed using an 18-item assessment tool created by the author based on a prior assessment tool of quality in the literature (Long, Cramer, Jenkins, Bennington, & Paulson, 2019). See Supplement A to review the assessment tool. Items were separated into four sections: introduction, methods, results, and discussion/conclusion. A point system was used to assess the quality of each article. High scores indicate a higher quality study, with possible scores ranging from 0 to 29. To ensure the reliability of ratings, the quality assessment tool was used by two authors (CW and JM) to assess each of the final 31 selected articles. The two coders began by assessing five articles independently. Intraclass correlations were then conducted and any items with coefficients under .70 were revised for clarity in definition. CW and JM then completed the same process again to ensure the intraclass coefficients were above .70 (i.e., above acceptable inter-rater agreement values; Bakeman & Gottman, 1997; Koo & Li, 2016).

Supplement A – Quality Assessment Tool

Introduction

1. Is the hypothesis/aim/objective clearly stated?
        Yes – 1
        No – 0
 	
 2. Did the authors give an appropriate rationale for the study?
        Yes – 1
        No – 0

Supplement A – Continued

Methods

3. Is this study qualitative, quantitative, or mixed methods design?
        Mixed methods – 3
        Quantitative only – 2
        Qualitative only – 1

4. Indicate the study design:
        Intervention (e.g. educational intervention) – 3
        Multi-time point survey – 2
        Single-time point survey – 1
        Other – 0
        Cannot tell – 0

5. Did the authors address sample size/statistical power concerns?
        Yes - 1
        No – 0
        Cannot tell – 0

6. How does the article define sexual minority and/or gender minority in relation to study procedure and competency addressed?
        Sexual orientation minority, transgender, and BDSM - 3
        Only two categories mentioned (e.g. sexual orientation and gender only) – 2
        Only one category mentioned (e.g. sexual orientation only) – 1
        No category is mentioned – 0

7. Is the target population clearly described? (e.g. nurse, social worker, psychiatrist, psychologist, counselor)
        Yes – 1
        No – 0

8. Did the authors target single or multiple health professions populations? (e.g. psychiatrists only or social workers and counselors)
        Two or more – 2
        One – 1
        None – 0

9. Was validity of the data collection tool discussed?
        Statistics provided/elaborated upon – 2
        Reference to prior studies/brief text mention – 1
        No – 0
        Not applicable – 0

10. Was reliability of the data collection tool discussed?
        Statistics provided/elaborated upon – 2
        Reference to prior studies/brief text mention – 1
        No – 0
        Not applicable – 0

Supplement A – Continued

Results

11. Is any rationale provided for choice of analytic approach?
        Yes – 1
        No – 0
 	
12. Does the article address competency as knowledge, attitudes, and skill?
        All three – 3
        Only two (e.g. attitudes and knowledge) – 2
        Only one (e.g. attitudes only) – 1
        None of the above – 0
 	
13. Are there outcome/dependent measure variables in inferential statistical models other than competency?
        Yes – 1
        No – 0
 	
14. Are the demographics clearly described?
        Yes – 1
        No – 0
 	
15. Did the authors directly address hypotheses/aims?
        Yes – 1
        No – 0
        Not applicable – 0

Discussion/Conclusion

16. Do the authors make appropriate conclusions based on results?
        Yes – 1
        No – 0
 	
17. Do the authors discuss study limitations or potential bias?
        Yes – 1
        No – 0
 	
18. Do the authors discuss interpretations or applications of results?
        Yes – 1
        No – 0

Results

Quality Assessment Summary

The results of the quality assessment tool are shown in Table II.2. Each section of the

quality assessment tool is described in further detail below.

Table II.2. Numerical Results of Quality Assessment Tool

Introduction	Yes (%)	No (%)	
1. Is the hypothesis/aim/objective clearly stated?	30 (96.8%)	1 (3.2%)	
2. Did the authors give an appropriate rationale for the study?	31 (100.0%)	0 (0.0%)	

Methods

		Mixed Methods	Quantitative	Qualitative
3. Is the study qualitative, quantitative, or mixed methods design?		7 (22.6%)	19 (61.3%)	5 (16.1%)
	Intervention	Multi-time Point Survey	Single-time Point Survey	Cannot Tell/Other
4. Indicate the study design:	4 (12.9%)	4 (12.9%)	20 (64.5%)	3 (9.7%)
		Yes	No/Cannot Tell	
5. Did they address sample size/statistical power concerns?		13 (41.9%)	18 (58.1%)	
		2 Categories	1 Category	
6. How does the article define sexual minority and/or gender minority in relation to study procedure and competency addressed?		7 (22.6%)	24 (77.4%)	
		Yes	No	
7. Is the target population clearly described?		31 (100.0%)	0 (0.0%)	
	Two or More	One		
8. Did the authors target single or multiple health professions populations?	4 (12.9%)	27 (87.1%)		
		Yes, with statistics	Yes, text only	No/NA
9. Was validity of the data collection tool discussed?		14 (45.2%)	8 (25.8%)	9 (29.0%)
10. Was reliability of the data collection tool discussed?		19 (61.3%)	4 (12.9%)	8 (25.8%)

Table II.2. Continued
Results

	Yes	No
11. Is any rationale provided for choice of analytic approach?	29 (93.5%)	2 (6.5%)

	All Three	Only Two	Only One
12. Does the article address competency as knowledge, attitudes, and skill?	16 (51.6%)	10 (32.3%)	5 (16.1%)

	Yes	No/NA
13. Are there outcome/dependent measure variables in inferential statistical models other than competency?	15 (48.4%)	16 (51.6%)
14. Are the demographics clearly described?	29 (93.5%)	2 (6.5%)
15. Did the authors directly address hypotheses/aims?	30 (96.8%)	1 (3.2%)

Discussion/Conclusion

16. Do the authors make appropriate conclusions based on results?	31 (100.0%)	0 (0.0%)
17. Do the authors discuss study limitations or potential bias?	31 (100.0%)	0 (0.0%)
18. Do the authors discuss interpretation or application of results?	30 (96.8%)	1 (3.2%)

Introduction. Of the 31 articles included in the current review, 30 (96.8%) clearly stated the hypothesis, aim, or objective of the study. In 31 (100%) of the articles, the author clearly stated the rationale for doing the study.

Methods. The study designs were spread across quantitative only (n=19, 61.3%), qualitative only (n=5, 16.1%), and mixed methods (n=7, 22.6%). Most of the articles addressed the study design, with 20 (64.5%) being single-time point surveys, 4 (12.9%) being multi-time point surveys, and 4 (12.9%) being an intervention. Three articles (9.7%) did not explain the study design used. The majority of the articles (n=18, 58.1%) did not address sample size or statistical power concerns, but 13 of the articles (41.9%) did address these concerns.

All of the articles defined sexual minority and/or gender minority in relation to study procedure and competency addressed. Twenty-four (77.4%) of the studies only addressed one category of SGM, such as sexual orientation. There were 7 (22.6%) studies that addressed two categories of SGM (i.e., sexual orientation and gender identity). All of the articles (n=31, 100%) clearly described the type of health service provider (e.g., nurse, social worker, psychiatrist). In 27 (87.1%) of the studies there was a single health service provider type. In 4 (12.9%) of the studies there were two or more types of health service provider (among them, counselors and other mental health professionals were the most common).

A number of the articles addressed the reliability and validity of the data collection utilized in the studies. For 14 (45.2%) of the studies, statistics were provided to support the validity of the data collection tool. There were 8 (25.8%) studies that briefly mentioned the validity of the data collection tool and 9 (29.0%) studies that did not address the validity. The reliability of the data collection tool was addressed in 23 (74.2%) of the studies, with 19 (61.3%)

providing statistics regarding the reliability of the measure and 4 (12.9%) mentioning the reliability briefly. Eight (25.8%) studies did not address the reliability of the data collection tool.

Results. In 29 (93.5%) of the studies the authors provided a rationale for the choice of their analytic approach. There were 2 (6.5%) studies that did not address the analytic approach. All of the studies addressed competency, although there was variation in how competency was defined. Sixteen (51.6%) of the studies defined competency as knowledge, attitudes, and skill. Ten (32.3%) of the studies addressed competency as two of those three (e.g., knowledge and attitudes), while 5 (16.1%) of the studies addressed competency as only one of the three (e.g., knowledge only). Regarding outcome variables other than competency, the articles were almost evenly split between yes (n=15, 48.4%) and no (n=16, 51.6%) as to whether additional outcomes (e.g., years of clinical experience, education level) were included.

The majority of the studies (n=29, 93.5%) also clearly described the demographics. Similarly, most of the authors (n=30, 96.8%) directly addressed the hypotheses or aims of the studies in the results section. Overall, the quality of articles was relatively high.

Discussion. There were three indicators of quality for the discussion and conclusion section of each article. Each author (100%) made appropriate conclusions based on the results, the authors discussed study limitations and potential bias, and almost all the authors (n=30, 96.8%) discussed potential application of the results. The discussion sections of each articles were therefore generally strong.

Study Characteristics

Characteristics of the 31 selected studies are shown in Table II.1. Quality assessment total scores ranged from 14 to 26 ($M = 20.23$, $SD = 2.94$) among the 31 studies, indicating a

fairly wide range of article quality in the literature regarding health service providers'

competency caring for SGM individuals.

Competency Measurement Tools. There was no one tool favored for measuring

competency. The goal and target population of the study determined the competency

measurement tool utilized by the authors, with most authors using more than one measurement

tool. The most commonly utilized measurement tool used in the 31 studies (n=10, 32.3%) was

the SOCCS. This percentage increases if revised versions of the scale are included (i.e., R-

SOCCS, n=2, and the GICCS, n=3), meaning the SOCCS or a version of it was utilized in 15

studies (48.4%). Other prominently used measures included the ATGL (n=3, 9.7%), MCKAS

(n=2, 6.5%), and the MHS (n=2, 6.5%). Seven studies (22.6%) utilized unvalidated tools (e.g.

knowledge questionnaires) and 6 studies (19.4%) utilized semi-structured interviews as the main

source of information from participants.

Competency Assessed. All of the studies assessed competency, although as mentioned

earlier, there was variation in how competency was defined and therefore assessed. The

breakdown among studies and which aspect of competency was assessed was widespread.

Sixteen (51.6%) of the studies assessed competency as knowledge, attitudes, and skills. Three

(9.7%) of the studies assessed competency as knowledge and skills, while six (19.4%) of the

studies assessed competency as knowledge and attitudes. Three (9.7%) of the studies assessed

competency as knowledge only. Three of the studies (9.7%) assessed competency as attitudes

only.

Type of Health Service Provider. The most common health service profession included

in the studies was counseling, with 13 (41.9%) of the studies using counseling professionals or

counseling students as their target demographic. Eleven (35.5%) of the studies targeted other

mental health professionals (e.g., family therapists and social workers) or students. Three (9.7%) studies targeted nurses. Two (6.5%) of the studies targeted health professions students. Two (6.5%) of the studies targeted health professionals that had not been previously defined (e.g., OB-GYNs and midwives).

SGM Categories. The studies were heavily focused on health service providers' competency with sexual minorities rather than gender minorities or BDSM-practitioners. There were 15 (48.4%) studies that looked at health service providers competency with sexual minorities only. Six (19.4%) of the studies looked at health service providers competency with gender minorities only. There were 7 (22.6%) studies that looked at health service providers competency with both sexual orientation and gender minority individuals. Three (9.7%) studies looked at health service providers' competency with BDSM-practitioners.

Overview of Health Service Providers' Competency with SGM Persons

Competency to work with SGM individuals was addressed by all articles included in the review in some form (see Table II.1). Many counseling students and professionals believe they have a high level of competence working with sexual minorities, but actually hold negative implicit beliefs (Boysen & Vogel, 2008; Israel & Hackett, 2004). For instance, counseling students at varying levels of training took implicit association tests about African Americans and lesbians and gay men. While the students reported high levels of competence (knowledge and skill) overall, with the highest levels the further along they were in training, implicit association tests showed that bias did not vary based on level of training, suggesting a divergence between counseling students' explicit and implicit attitudes (Boysen & Vogel, 2008). Similarly, counseling students who were placed in an intervention to explore their attitudes about sexual

minorities reported an increase in negative attitudes after the intervention compared to students who were not given the attitude training (Israel & Hackett, 2004).

Another key finding from the review was that health service providers consistently report that they are not being trained to work with LGBTQ+ individuals (Bidell, 2005; Erich, Boutte-Queen, Donnelly, & Tittsworth, 2007). Counseling students and counseling professionals report that they do not feel they have the skills to work with sexual minorities. While they may have the knowledge and they may have a positive attitude regarding sexual minorities, they feel that their training did not give them the necessary skills to work with this population (Bidell, 2005). Similarly, licensed social workers report that their education does not give them the knowledge or skills necessary to work with gender minorities. These professionals report that they have more desire to work with this population and feel more competent to do so when they are educated regarding the issues that gender minorities face (Erich et al., 2007).

Further, findings from this review demonstrate that courses specifically about LGBTQ+ individuals are necessary and useful for health service providers (Braun, Garcia-Grossman, Quinones-Rivera, & Deutsch, 2017; Unger, 2015). One study found that few practicing OB-GYNs received education during medical school about the health services LGBTQ+ individuals need. Despite this, a majority of providers responded that they routinely provided health services for sexual minorities and rarely provided health services for gender minorities. Furthermore, most of the providers reported feeling comfortable caring for sexual minority patients while around a third of the study sample reported feeling comfortable caring for gender minority patients (Unger, 2015). A study with graduate health professions students found that an elective course on gender minorities was useful in improving students' knowledge about gender identity health topics and in reducing transphobia (Braun et al., 2017).

There are several key findings from this study regarding health service providers' competency with SGM individuals. First, competency is inconsistently defined and measured (as seen in Table II.1). Second, providers do not believe that they are being trained to work with LGBTQ+ populations (Bidell, 2005; Erich et al., 2007). Specifically, they do not feel that they have the necessary skills to care for LGBTQ+ patients. Third, when training is provided to health service providers, gaining knowledge is emphasized over skill development and acquisition (Bidell, 2005). Finally, course content specific to gender minorities has proven useful in improving healthcare providers' competency with gender minorities (Braun et al., 2017).

Correlates of LGBTQ+ Competency. Practicing counselors and counseling students who are more rigid and authoritarian in their religious identity tended to exhibit more homophobic attitudes (Balkin, Schlosser, & Levitt, 2009). Similarly, counseling students and professionals who identify as religious conservatives demonstrate significantly lower knowledge, attitude, and skill levels working with sexual minority patients (Bidell, 2014b). Additionally, those counselors who report a strong politically conservative ideology have the lowest knowledge, attitude, and skill levels when working with sexual minority patients (Bidell, 2014a). Counseling professionals and counseling students who identify as sexual minorities report more knowledge, positive attitudes, and skill working with sexual minority patients than heterosexual counselors. Also, mental health professionals who identify as a sexual or racial/ethnic minority have higher knowledge, attitude, and skill levels working with TGNC patients (Dispenza et al., 2016). The counselor's attitude toward alternative sexuality is a predictor for competency working with bisexual patients (Brooks et al., 2013). Male marriage and family therapists are more likely to have practiced conversion therapy and to believe that it is an ethical practice. Those therapists who believe in conversion therapy have lower knowledge, attitude, and skill

levels working with sexual minority patients (McGeorge et al., 2015). Physicians were not more likely to have received LGBTQ+ education during medical school if they had graduated more recently from medical school (Unger, 2015).

Discussion

The current review summarized literature on definitions, measures, and correlates of health service provider competency working with SGM individuals. The 31 selected studies demonstrated a wide array of correlates and competency for health service providers working with SGM individuals. A key methodological weakness of the current literature is the lack of using the standard definition when assessing competency. Almost all studies included knowledge in their definition of competency, and a majority of the studies included attitude in their definition. Skill was the aspect of competency that was most often ignored. In the studies that did look at skill as a part of competency, it was found that this was the aptitude most lacking by health service providers.

There was not a single measurement tool of competency that was favored by a majority of the studies. All of the studies used a number of measurements of competency, and each study chose different measures, although the SOCCS (Bidell, 2005) was the most frequently utilized measure. The SOCCS is one of the more versatile scales available, as it measures each aspect of competency (attitude, knowledge, and skills) and it has been successfully revised several times to measure competency in areas other than sexual orientation. Due to the strong psychometrics of the SOCCS, we recommend utilizing this measurement tool moving forward and adapting it for broader health service provider audiences.

There was a wide variety of types of health service providers for the studies. Overall, the most common target population was within the behavioral health disciplines. The studies were

heavily focused on sexual orientation, followed by gender identity, and very few addressing

BDSM-practitioners. There are several correlates of health service providers' competency

working with sexual minority patients, such as counselors and counseling students who are rigid

and authoritarian in their religious identity tend to exhibit more homophobic attitudes (Balkin et

al., 2009), and counseling students and professionals who identify as religious conservatives

demonstrate significantly lower knowledge, attitude, and skill levels working with sexual

minority patients (Bidell, 2014b).

Implications for Research and Practice

Findings hold several implications for SGM-competency research moving forward. The

current review demonstrates that BDSM-practitioners are not being addressed in the health care

literature. Despite calls for more BDSM-aware professionals (Dunkley & Brotto, 2018; Pillai-

Friedman, Pollitt, & Castaldo, 2014), competency measures specific to health service providers

working with BDSM-practitioners have not been developed. Future research should address

knowledge, attitude, and skills of health service providers working with BDSM-practitioners by

developing measures such as knowledge tests, and prejudice and related-attitude and skills

assessments. Competency trainings specifically for health service providers working with

BDSM-practitioners should be developed based on the results of the assessments. Researchers in

this area may benefit from partnering with leading national expert or community-based

organizations devoted to public education and advocacy for sexual diversity issues. Finally, an

emphasis needs to be placed on the difference between sexual orientation and gender identity.

Many health service providers conflate the two, which can communicate lack of understanding to

the patient.

Another finding from the current review is that correlates of SGM health care competency are understudied. One possibility for future research in the area of correlates of health service providers' competency with SGM individuals, is investigating theory-based explanations. Theories linked to general LGBTQ+-related prejudice (Cramer, Miller, Amacker, & Burks, 2013; Stones, 2006) may be a starting point. Such theory-based correlates include: Social Identity Theory (SIT; Tajfel & Turner, 2010) in the form of more majority group social identities, the Dual Process Model of Prejudice (Duckitt & Sibley, 2010) constructs of higher social dominance and authoritarianism, and the Five-Factor Model of Personality (FFM; Costa & McCrae, 1992) traits such as low openness to experience.

Implications for SGM-competent health promotion practice can be drawn from this review as well. Findings from the current review suggest strategies such as: creating a welcoming environment by displaying LGBTQ+ friendly brochures (Fuzzell, Fedesco, Alexander, Fortenberry, & Shields, 2016); customizing patient intake forms to ask for preferred pronouns, include family options other than "married" (Barbara, Quandt, & Anderson, 2008); and listing practices on LGBTQ+ medical directories (e.g., GLMA: Health Professionals Advancing LGBTQ+ Equality's "Find A Provider" directory). Health promotion is also important when it comes to caring for patients who practice BDSM. Providers should take steps to make all clients feel welcome in their practice. For those patients who are a part of the BDSM community, it is important that a provider not make them feel as though they are engaging in an unhealthy behavior (Kelsey et al., 2013; Kolmes et al., 2006).

Limitations

This body of literature contains a number of additional shortcomings needing to be addressed as the science of SGM-competency develops. First, there is variation in how competency is defined. All of the studies did not use the standard definition of knowledge,

attitude, and skill, opting to use pieces of the definition instead. This is important to note because it is also difficult to draw conclusions across research studies due to the lack of a consistent definition. Standardized assessment tools, such as a health literacy quiz (knowledge) and assessment of skills, should be implemented in future research on health service providers competency. If a standardized measurement tool that could be used with multiple health service providers (e.g., physicians, mental health providers, nurses, etc.) could be developed, then it is possible research conclusions would be more generalizable across studies.

The heterogenous nature of the type of health service providers and SGM categories addressed limits generalizability of conclusions. While the question set forth by the review was broad, the variability between studies makes it difficult to compare them with regard to definitions and correlates of health service provider competency. Another limitation of the research was that the majority of the articles did not address sample size or statistical power concerns. Similarly, psychometric properties were not reported in many studies which leaves the potential for poor psychometrics to explain some non-significant findings.

CHAPTER III

ARTICLE TWO

IMPLEMENTATION AND EVALUATION OF A PSYCHO-EDUCATIONAL

TRAINING FOR ADVOCATES OF LGBT MILITARY SEXUAL ASSAULT VICTIMS

See: Cramer, R. J., Wilsey, C., Hinkle, I., Kukla, A., & Macchia, J. (2018). Implementation and

evaluation of a psycho-educational training on sexual and gender minority needs for

military sexual assault victim advocates. *Military Behavioral Health, 7*(1), 14-21.

Abstract

Members of the Lesbian, Gay, Bisexual and Transgender (LGBT) community continue to face

increased risk for stigma and victimization, particularly in military settings. At the same time,

health literacy among victim services professionals serving LGBT persons is often lacking. The

present study examined impacts of an interactive psycho-educational training in sexual and

gender identity (SOGI) minority issues for military sexual assault victims' advocates (SAVA).

Twenty-seven SAVA personnel participated and completed pre-post demographic, SOGI health

literacy, sexual prejudice, and training feedback questionnaires. Descriptive statistics, repeated

measures analyses, and regression were used to examine training impacts. The training: (1)

yielded positive gains in SOGI health literacy; (2), was favorably rated, and (3) had no impact on

participant sexual prejudice. Intent to use training content was highest for female SAVA

professionals and those higher in pre-training SOGI health literacy. To our knowledge, this is the

first study to pilot test a SOGI health literacy training for military SAVA personnel. The training

demonstrates preliminary positive impacts with regard to health literacy and intent to implement

training content. Future adaptation and evaluation are warranted in order to effect positive

change in anti-LGBT prejudice and track actual usage among SAVA personnel.

Introduction

The lesbian, gay, bisexual, and transgender (LGBT) community is at increased risk for violence victimization, including sexual and relational violence (Cramer et al., 2012). Such victimization among LGBT community members has been linked to adverse psychosocial and health-related impacts such as anxiety, depression, suicide, substance use, HIV and other sexually transmitted infections (STIs) (Cramer et al., 2012; Gemberling, Cramer, Miller, Stroud, Noland, & Graham, 2015; Mereish, O'Cleirigh, & Bradford, 2014; Russell, Ryan, Toomey, Diaz, & Sanchez, 2011). The military is a setting in which anti-LGBT stigma and victimization may be more of a public health concern. For instance, historically stigmatizing policies such as "Don't Ask Don't Tell" (DADT) have been classified as heterosexist and prejudicial in nature (Herek, Gillis, & Cogan, 2009) and linked to poor mental health for lesbian, gay and bisexual (LGB) members of the military (Burks, 2011). Although it has been repealed, the lingering atmosphere created by this act has been one of sexual stigma and traditional gender role ideologies. Furthermore, anti-LGBT victimization remains a pressing problem in the military with factors such as internalized homophobia, peer/organizational support, and leadership behavior influencing the ultimate health of LGBT service members (Castro & Goldbach, 2018).

Sexual assault victim advocates (SAVA) represent a potential supportive solution for minority victims in the military; SAVA personnel are individuals who have been specially trained to support victims of sexual crimes (Powell-Williams, White, & Powell-Williams, 2013), including crisis management (Office of Victims of Crime, n.d.). Presence of a SAVA can have a range of positive impacts (e.g., social/emotional support) for a victim (Maier, 2008). SAVA involvement is also associated with positive impacts for victims such as significantly increased likelihood of police reports being taken at the hospital, more positive interactions with the

criminal justice system, receiving more medical services, and feeling more positive about medical service provision (Campbell, 2006).

With the promise of SAVA professionals in helping victims of crime, another domain of victim support lies in the need for training in LGBT concerns. Health professions training literature offers some insight into this issue. Evidence to date suggests educational and other interventions show some positive impacts for medical students (Utamsingh, Kenya, Lebron, & Carasquillo, 2017) and other graduate students (Finkel, Storaasli, Bandele, & Schaefer, 2003) in their comfort working with, and attitudes toward, LGBT persons. The Veterans Health Administration (VHA) initiated extensive staff training in 2012 to raise awareness and create a more welcoming environment for LGBT veterans (Kauth, Barrera, & Latini, in press). Prior to this training, sexual orientation and gender minority veterans tended not to report their identity to the VHA or they avoided the facilities due to negative experiences while in the military. Data from current sexual and gender minority users, however, demonstrate that a majority of the LGBT-identifying individuals who used VHA services were comfortable disclosing their identity to their healthcare provider and felt welcome at the facility, suggesting that psycho-educational VHA training was successful. The present paper features similar training for SAVA professionals toward the goal of ensuring LGBT-competent victim service provision to LGBT persons in the military.

The Present Study

The focus of the present study centered on evaluating a pilot LGBT identity, victimization and health psycho-educational training program for military SAVA personnel. Consistent with competency-based training literature (e.g., Finkel et al., 2003; Frank, Mungaroo, Ahmad, et al., 2010), we focus the evaluation of the training's initial impact on shaping

participants' sexual orientation and gender identity (SOGI)-related attitudes, health literacy, and intent to enact training content. First, we hypothesized that training will result in increased SOGI health literacy and reductions in sexual prejudice. Second, we expected that participants will report generally high degrees of training satisfaction and intent to use training content. Third, we hypothesized that participant SOGI health literacy and female sex will be positively associated with intention to use training content, whereas sexual prejudice would be negatively associated with such intention.

Methods

Participants

A total of 27 (100% participation rate) trainees agreed to participate in the pre-post survey. All 27 provided both pre- and post-training survey responses. Demographic information permitted for reporting by the host Naval training site was as follows.[1] The group was of average young adult age (M =29.70, SD=5.42), and two thirds of the sample (18/27, 66.7%) was female. Race was reported as Caucasian (n=12, 44.4%), African American (n=10, 37.0%), other (n=2, 7.4%), American Indian (n=1, 3.7%), Pacific Islander (n=1, 3.7%), and bi-racial (n=1, 3.7%). The group was of relatively low-to-mid rank on average, consisting of: E3 (Seaman, n=1, 3.7%), E4 (Petty Officer Third Class, n=3, 11.1%), E5 (Petty Officer Second Class, n=8, 29.6%), E6 (Petty Officer First Class, n=7, 25.9%), E7 (Chief Petty Officer, n=3, 11.1%), E9 (Master Chief Petty Officer, n=1, 3.7%), and O3 (Lieutenant, n=2, 7.4%). Two participants did not report rank.

Procedure

The LGBT Life Center (Norfolk, VA) is a community agency devoted to health service, education, advocacy, and training provision regarding HIV and sexual and gender diversity. A

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[1] Although additional demographic information would be ideal for describing the sample, the military partner only permitted limited demographics to be collected and reported.

Naval training partner requested the Center provide a training concerning SOGI models, victimization, resilience and other topics for Naval SAVA personnel. The training was psycho-educational and interactive in nature, and part of a larger training provided by additional agencies engaged by the Naval training site. Training was conducted in late 2017. The written pre-post questionnaires were distributed to participants prior to the start of the training. Evaluation tools were coded with a random numerical identifier prior to distribution to ensure anonymity. Prior to the start of the training, participants completed the pre-test and turned it in. Completed post-tests were collected at the end of the training. Material was presented using prepared slides and videos (see description below). Participants were provided opportunity to ask questions during pre-post evaluation and the training session. A waiver of consent was requested and approved by the Old Dominion University Institutional Review Board for secondary analysis of the training database for academic publication. Study procedures were summarized in this application approval. Because the initial evaluation was conducted by the LGBT Life Center for purposes of evaluating and improving their program, a-priori study approval was not obtained.

Training Description[2]

The training presentation was 1.5 hours in length, organized in three primary content sections: (1) SOGI minority identity models, (2) unique experiences and risk/resilience for LGBT persons, and (3) methods to recognize one's own implicit bias. A series of true/false questions with associated interactive discussion were used across training content areas. Section 1 of the training included factual content addressing SOGI definitions and categories (PFLG, n.d.), visual aids like the Genderbread person (Genderbread Person, n.d.), prominent sexual orientation identity models in the scholarly literature (e.g., Klein, Sepekoff, & Wolf, 1985; Mohr

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[2] Full training materials available upon request from LGBT Life Center authors.

& Kendra, 2011), and sample statistics on LGBT military service members. Training section 2 included review of the coming out process (with an associated video), overview of population-specific risk (e.g., for mental health concerns, substance use) and resilience (e.g., identity affirmation, community involvement), models of LGBT stigma and health (e.g., Herek, 2016; Herek et al., 2009), sample LGBT victimization statistics (e.g., CDC, 2010; Human Rights Campaign, 2017), examples of challenges for LGBT sexual assault victims (e.g., difficulty accessing victims' shelters). This section culminated in a video-based case study in which participants were asked to apply content; this was followed by a discussion surrounding issues of stigma and victim's needs. Section 3 began with an interactive activity demonstrating the concept of bias. Definitions and examples of stereotyping, prejudice and implicit bias were then reviewed. This section ended with provision of a series of recommendations to manage one's own implicit bias; these included review of intergroup contact-based approaches, provision of consultation and educational resources (e.g., PFLAG, Kinsey Institute), introduction to building mindfulness skills as a method of remaining aware of potential implicit bias, and provision of self-reflection resources (e.g., Project Implicit, n.d.).

Measures

Demographics. Participants provided demographics pre-approved by the military training site partner.

SOGI Health Literacy. Participants were asked to complete the SOGI Health Literacy quiz. The quiz consisted of 15 true/false items that were derived from the training content. Consistent with Item Response Theory, items were intended to possess varying levels of difficulty (DeVellis, 2017). Table III.1 contains response rates for each quiz item for pre- and post-test; correct answer ranges suggest achievement of varying levels of difficulty.

Table III.1. Participant Satisfaction and SOGI Health Literacy Items and Descriptive Statistics

Training Satisfaction Statement	Mean	SD
1. Overall, I am satisfied with the training program.	4.55	0.64
2. The educational content of the training was helpful.	4.52	0.75
3. The presenter was clear and effective.	4.59	0.57
4. The videos were appropriate for the training.	4.59	0.75
5. The activities and discussion were appropriate for the training.	4.63	0.56
6. I think this training will help me in my role as a sexual assault victim advocate.	4.59	0.64
7. I intend to use the training content after today.	4.59	0.64

SOGI Health Literacy Quiz Statement	T1 % Correct	T2 % Correct
1. Sexual orientation can be considered a combination of desire, behavior, and identity that each person displays. (True)	81.5	100
2. Transgender identity is considered a sexual orientation. (False)	51.9	88.9
3. There are only three types of sexual orientation categories. (False)	81.5	74.1
4. Gender identity is the extent to which one views themselves as male or female. (True).	77.8	88.9
5. Transsexual and transvestite are interchangeable terms. (False)	81.5	81.5
6. The "coming out" process is complete by adulthood for LGBTQ+ persons. (False).	100	100
7. Identifying as a member of the LGBTQ+ community is considered a psychological disorder. (False).	85.2	100
8. LGBTQ+ individuals are at elevated risk for suicide compared to heterosexual persons. (True).	66.7	77.8
9. Support system members such as family and religious community members sometimes react negatively to LGBTQ+ persons' identity disclosure. (True).	96.3	100
10. Internalized prejudice is one explanation for poor health outcomes among LGBTQ+ individuals. (True).	70.4	81.5
11. LGBTQ+ individuals draw little meaning from advocacy or activist activities. (False).	88.9	74.1
12. Hate crime victimization is considered one social cause of stress for LGBTQ+ individuals. (True).	96.3	100
13. Sexual assault victimization rates are about equal for heterosexual and LGBTQ+ groups. (False).	40.7	74.1
14. Individuals often identify as bisexual because they cannot make-up their mind about who they are attracted to. (False).	70.4	81.5
15. Most LGBTQ+ persons possess good health and positive identities. (True).	74.1	70.4

Notes: SOGI = sexual orientation and gender identity; Mean = mean agreement on 5-point scale range of 1 = *strongly disagree* to 5 = *strongly agree*; T1 = pre-training assessment; T2 = post-training assessment; % correct = number of correct answers/27 total training participants.

Sexual Prejudice. Sexual prejudice was assessed with a revised short version of the Attitudes towards Lesbian and Gay Men Scale (ATLGS; Herek, 1988, 1994). The measure consists of 10 items; 5 of which are about gay men and the other 5 about lesbians. Most items on the scale are negative in nature regarding sexual minority persons, with several positive items requiring reverse scoring. Participants rated the extent to which they agreed with each item along a 5-point Likert scale (*strongly disagree* to *strongly agree*). Alpha levels are typically greater than .80 for non-student adult samples (Herek, 1988, 1994). Cronbach's alpha for the pre-test (.82) and post-test (.80) total score were acceptable.

Training Satisfaction. Training satisfaction was assessed using seven statements concerning training pedagogy and outcomes (e.g., "Overall, I am satisfied with the training program") respondents indicated extent of agreement or disagreement on a 5-point Likert scale (*strongly disagree* to *strongly agree*). Table III.1 contains descriptive statistics for all items.

Statistical Analyses

Data missingness for questionnaire items ranged from 0 to 3.7%. Multiple imputation was used to remedy missing data. Pre-post training analyses concerning SOGI health literacy and sexual prejudice were examined using within-subjects t-tests. Descriptive statistics and open-ended responses were used to examine training satisfaction. Linear regression was implemented to identify predictors of intent to use training content.

Results

Table III.2 contains summary statistics for these measures. In partial support of hypothesis 1, participants demonstrated significant and large gains in SOGI health literacy. Contrary to hypothesis 1, participants demonstrated non-significant reductions on a total score of sexual prejudice. In support of hypothesis 2, participants indicated somewhat-to-strong average

agreement (i.e., 4 to 5 on a 5-point scale) with all items, suggesting high degrees of training

satisfaction (see Table III.1). Open-ended participant training feedback suggested case videos

were particularly engaging and helpful. Participants also recommended provision of training

materials ahead of the actual training. Inspection of Table III.3 partially supports hypothesis 3;

both pre-training SOGI health literacy and female sex displayed large significant positive

associations with intention to use training content, whereas sexual prejudice was unrelated to

such intention.

Table III.2. Descriptive and Inferential Statistics for Pre- and Post-Training Participant Measures

Measure	Range	T1 M (SD)	T2 M (SD)	T (df)	p-value	Cohen's d
SOGI HL	0-15	11.67 (1.33)	12.98 (1.20)	5.06 (26)	< .001	1.03
Sexual Prejudice	5-50	20.96 (7.05)	20.01 (7.28)	-1.41 (26)	.17	-0.13

Notes: T1 = pre-training survey; T2 = post-training survey; T = test statistic for within-subjects T-test; df = degrees of freedom; M = mean; SD = standard deviation; SOGI HL = sexual orientation and gender diversity health literacy test score; Sexual Prejudice = total score on 10-item Attitudes towards Lesbians and Gay Men Scale.

Table III.3. Linear Regression Model Predicting Participant Intention to Use Training Content

Predictor Variable	B	SE β	*p*-value	η2
Intercept	1.87	1.17	.12	.11
Male sex	-0.87	.21	.001	.46
Age	0.01	.02	.47	.03
T1 SOGI HL	0.23	.09	.01	.27
T2 SOGI HL	-0.03	.09	.72	.01
T1 Sexual Prejudice	-0.01	.03	.66	.01
T2 Sexual Prejudice	0.03	.03	.34	.04

Notes: Full model: $F_{(6, 20)}$ = 5.09, *p* = .003, Adj R2 = .49.
Male sex = dummy code with male as reference group; SOGI HL = sexual orientation and gender diversity health literacy test score; Sexual Prejudice = total score on 10-item Attitudes towards Lesbians and Gay Men Scale; T1 = pre-training score; T2 = post-training score; SE = standard error.

Discussion

Overall, the training yielded positive gains in SOGI health literacy, and participants rated the training very highly. Understanding the positive training impact on SOGI health literacy appears straightforward given the training modality was highly didactic and psycho-educational. The clear link between educational training and impact on factual LGBT health knowledge is of high importance. Reflecting on the roles of SAVA professionals (e.g., crisis intervention, case management; OVC, n.d.), it is critical these professionals possess a high degree of cultural competence, as reflected by LGBT health literacy. Such knowledge has the potential to tremendously shape victim health and other impacts (Powel-Williams et al., 2008). With the potential benefits of enhanced SOGI health literacy in mind, the overall high intent to enact training content is quite encouraging.

The training demonstrated no impact on participant sexual prejudice. Such a failure to affect trainee sexual prejudice contradicts related training for health professions trainees showing reduction in sexual prejudice and discomfort in working with LGBT patients (Finkel et al., 2003; Utamsingh et al., 2017). A number of explanations exist for this pattern. For example, differences in training impacts may be a function of the training content or sample, as prior studies have implemented a range of educational interventions in healthcare settings. Our training contained factual information concerning both general LGBT concerns (e.g., identity labels and models) and sexual assault/military-specific statistics. Combined with a unique sample of military personnel, it may be that alternative training content or approaches are necessary to impact sexual prejudice among military personnel. Such techniques may include use of a military service member as a trainer, or implementation of perspective taking and guided imagery exercises.

Intent to use the training was generally high, and most likely to occur for female participants and those with higher pre-training SOGI health literacy. Consistent with general trends in females holding fewer stigmatizing views (e.g. Herek, 1988), this pattern of findings leaves the door open for further work. For example, future research could follow trainees post-training to assess actual implementation in their SAVA roles. Moreover, future training evaluation would benefit from linking training participation to actual victim outcomes. Adjustment of training techniques could also account for best practices in how to engage males and those lower in initial SOGI health literacy.

The present investigation possesses several limitations. Methodologically, our non-significant findings may be a function of low sample size and, therefore, insufficient statistical power. Such concerns echo rationale for our emphasis on effect sizes when interpreting current

findings. Future trainings could be more widely implemented with larger training groups beyond military SAVA personnel. Adopting a public health education and awareness perspective, SOGI health literacy training could be widely implemented for all new recruits. The present training evaluation also failed to measure transgender-specific prejudice. Such an outcome is critical to future training evaluation in order to address the full scope of anti-LGBT prejudice.

Conclusion

Consistent with a broader military effort toward education and training in LGBT issues (Kauth et al., in press), the present study offers preliminary supporting evidence for a training in LGBT competence for military SAVA personnel. Although the training yielded positive impacts on SOGI health literacy and intended usage, it should be exposed to additional evaluation and adaptation as necessary. Such future investigation may include training for other military legal professionals such as military police and attorneys.

CHAPTER IV

ARTICLE THREE

DEVELOPMENT AND INITIAL VALIDATION OF A SEXUAL AND GENDER MINORITY COMPETENCY-BASED SURVEY FOR HEALTH SERVICE PROFESSIONALS

LITERATURE REVIEW

In a study conducted by a research committee convened by the IOM (2011), patients who identify as SGM persons endure a multitude of health disparities. Such problems include higher rates of violence (e.g., Cramer et al., 2012), mental health conditions (e.g., Borgogna et al., 2019), and medical conditions (e.g., Scheer et al., 2019). A significant factor that affects SGM persons' health is access to health service providers who are knowledgeable about SGM health issues (Lim et al., 2014). For instance, providers' negative attitudes toward SGM persons can become internalized stigma for the patient, thereby negatively impacting patient health services (IOM, 2011). Such negative service coincides with documented elevated risk for mental health, HIV and other conditions (IOM, 2011; Herek, 2016). A contributing factor to the disparities in services are due to a lack of knowledge and comfort on the part of the health service provider, which stems from sexual and social stigma (Lim et al, 2014). One potential cause of health service stigma may stem from interactions with health service providers (Sabin, Riskind & Nosek, 2015). One way to enhance health service provider competency regarding SGM patients is to identify malleable theory-based correlates.

Overview of SGM Health Disparities

Research studies have demonstrated that individuals who identify as SGM experience a multitude of health disparities (Lim et al., 2014). For example, SGM persons have difficulty

accessing health insurance, social support programs, and often feel uncomfortable disclosing their identity to their health service provider (Lim et al., 2014; Sabin et al., 2015). Possibly due to this disclosure discomfort, it has been found that women who identify as lesbians often have lower rates of cervical cancer screening than heterosexual women (Cahill & Makadon, 2013). Research has also found that SGM persons report more instances of mental health issues related to minority stress. For instance, transgender patients are more likely to report suicidal ideation or a suicide attempt than non-transgender patients (Reisner, White, Bradford, & Mimiaga, 2014). Transgender patients are also more likely to report social stressors such as violence, discrimination, and childhood abuse, compared to non-transgender patients (Reisner et al., 2014). Overall, individuals who identify as SGM are more likely to experience a number of health issues such as obesity, smoking, alcohol abuse, and inadequate access to health care (IOM, 2011).

SGM individuals endure a number of health disparities due to the stigma associated with identities outside of the heteronormative and cisgender spectrum (Herek, 2016). The concept of sexual stigma is used to refer to any stigma that is associated with same-sex desires, behaviors, and relationships, as well as sexual minority communities. The concept of gender minority stigma is used to refer to any stigma directed at non-normative gender identities, experiences, expressions, and gender minority communities (Herek, 2016). Herek (2016) explained that stigmas operate by making a target invisible. When the target does become visible, the stigma then defines the individual or community as problematic, abnormal, inferior, or unnatural. Stigma could help to explain some of the healthcare disparities that SGM patients face when seeking care as the health service provider may frame the behavior as abnormal or unnatural, leading to an inferior level of care. Researchers have also theorized that stigma represents a

fundamental cause of systematic health disparities at the population level (Hatzenbuehler et al.,

2013).

What is Competency?

Educators who work with those in the medical field recognize the need for physicians to

become culturally competent, knowing that bias affects patient outcomes (Matharu et al., 2012).

It is known that many physicians often assume a patient is heterosexual if they do not state

otherwise, which can lead to negative health outcomes for SGM patients for numerous reasons,

such as receiving inadequate care and feeling the need to lie about their identity (Guilfoyle et al.,

2008). It also has been shown that health service providers who have negative attitudes toward

same-sex behavior do not provide adequate care for SGM patients (Eliason & Schope, 2001). In

a study on medical school students' attitudes toward SGM patients, it was found that the majority

of students did not express negative attitudes about SGM persons, nor did they think that SGM

persons should be denied civil rights (i.e. same-sex sexual behavior should not be illegal). While

most of the students reported that they would not express a negative attitude toward an SGM

patient, the students did report discomfort with same-sex behavior (Matharu et al., 2012). This

could lead to a situation where a patient does not disclose a health issue with their provider due

to discomfort and fear.

A majority of the health service literature defines competency as knowledge, attitudes,

and skills (e.g., Bidell, 2005; Kak et al., 2001; Kaslow, Dunn, & Smith, 2008). For instance, the

American Psychological Association (APA, 2015) published a report on the necessary

competency for primary care psychologists to possess, and stated that "competence in primary

care psychology refers to the knowledge, skills, and attitudes – and their integration – that allow

an individual to perform tasks and roles as a PC [primary care] psychologist, regardless of service delivery model" (APA, 2015, p. 5).

In November 2014, the Association of American Medical Colleges (AAMC) released comprehensive guidelines that medical schools must follow for teaching students how to care for LGBT+, gender nonconforming, and DSD (differences of sex development) patients (Rubin, 2015). The report lists 30 competencies (e.g. "sensitively and effectively eliciting relevant information about sex anatomy, sex development, sexual behavior, sexual history, sexual orientation, sexual identity, and gender identity from all patients in a developmentally appropriate manner," AAMC, 2014, p. 56) that physicians must master in SGM health. It also identifies a number of health disparities between SGM patients and those who are not SGM individuals.

In 2011, the American Psychological Association (APA, 2011) published a set of ethical guidelines for working with LGB clients covering the broad areas of therapists' attitudes, clients' relationships/families, issues of diversity, economic and workplace issues faced by clients, and continuing education, training, and research on LGB issues. One of the competency statements from the guidelines is "Psychologists understand that lesbian, gay, and bisexual orientations are not mental illnesses" (APA, 2011, p. 13). This was followed in 2015 by a set of ethical guidelines for working with gender identity minority clients covering general areas of therapists' foundational knowledge and awareness, stigma and discrimination faced by clients, clients' life span development, proper assessment, therapy and intervention, and continuing research, education, and training on gender identity issues (APA, 2015). A specific competency from the guidelines states, "Psychologists recognize how stigma, prejudice, discrimination, and violence affect the health and well-being of gender identity minority people" (APA, 2015, p. 838).

The competency assessment tool developed in this proposal, the Health Competency Assessment Form-SGM (HCAF-SGM), draws on AAMC and APA guidelines, as well as two existing competency measurement tools: the Sexual Orientation Counselor Competency Scale (SOCCS; Bidell, 2005) and the Suicide Competency Assessment Form (SCAF; Cramer et al., 2013). The SOCCS is a 31-item self-assessment tool that was developed to assess attitudes, skills and knowledge of counselors who work with lesbian, gay, and bisexual clients. It was designed using multicultural counselor competency theory and was the first valid and reliable scale for measuring counselors' competency working with LGB clients. The tool has three subscales to measure the three components of competency. The SCAF is a 10-item measure designed to assess self and observer ratings of trainee psychologists' competency evaluating suicide risk. The measure was developed based on research that showed psychologists were not well-attuned to evaluating suicide risk. The HCAF-SGM borrows from the SCAF in the competency scale that it uses to have health service providers rate their level of competence working with SGM patients. The HCAF-SGM also draws on the SOCCS in that it is expected to break down into three subscales; the HCAF-SGM, however, applies more broadly to all health service providers.

Theoretical Correlates of SGM Competency

Duckitt and Sibley (2006; 2010) proposed the Dual Process Model of Prejudice, which integrates personality traits and social attitudes. An important part of the model is a person's sociopolitical attitudes, which are defined by social dominance orientation (SDO) and right-wing authoritarianism (RWA). Those who are high in SDO tend to prefer intergroup relationships that are equal in power (Sidanius & Pratto, 1999). People who tend to be high in RWA express beliefs in coercive social control, obedience and respect for authority, and confirmation to traditional moral and religious values (Altemeyer, 1998). SDO and RWA were originally thought

to be measures of personality; however, they have come to be thought of as measures of social values and political attitudes. These two sociopolitical attitudes lead to prejudice in the way they affect a person's worldview. For example, someone who demonstrates thinking consistent with SDO values will tend to value competitiveness over group goals (Sidanius & Pratto, 1999). On the other hand, someone who demonstrates thinking consistent with RWA values will tend to perceive threats as a threat to collective security (Altemeyer, 1998).

Research has shown that SDO and RWA positively predicts generalized prejudice (McFarland, 2010) and has also suggested SDO (Jones et al., 2014; Poteat & Anderson, 2012) and RWA (Whitley & Lee, 2000; Cramer et al., 2013) are among the strongest predictors of SGM prejudice. Recently research on the Dual Process Model revealed three broader categories of generalized prejudice: derogated, dangerous, and dissident groups (Hadarics & Kende, 2017). SDO is related to negative attitudes toward derogated groups (those that have low status and are regarded as inferior). RWA is related to negative attitudes towards dangerous groups (those that are considered a threat to personal or societal safety). SDO and RWA equally correspond to prejudice against dissident groups (those that are challenging in-group values and social norms) (Hadarics & Kende, 2017). SGM individuals would be considered members of a dissident group.

Social Identity Theory (SIT; Tajfel & Turner, 2010) suggests that societies consist of various group identities (e.g., Black, White) that individuals subscribe to in varying degrees; also known as in-groups and out-groups. The group a person identifies with is considered an in-group (e.g., "I am White"), and people are most often motivated to view their in-group positively and their out-groups negatively (e.g., individuals who are White feel more positively about other White individuals; which is one component of racism) (Stets & Burke, 2000). Major, Mendes, and Dovidio (2013) expanded on SIT and found that key features of group relations and

dynamics (such as social categorization) influence how members of high-status groups perceive, feel about, and behave toward members of low-status groups. These behaviors can lead to disparities in healthcare due to the fact that the health service provider is a member of the high-status group (by virtue of occupation) and may exhibit explicit or implicit bias toward patients of lower status groups (SGM, race, ethnicity, etc.).

One of the novelties of this study is applying SIT to the provider-patient dyad (e.g., doctors are more likely to view other doctors in a more positive light than they are patients). Research has found that conditions that diminish cognitive capacity (e.g., time pressure, fatigue, information overload – conditions familiar to health service providers) can contribute to stereotyping of minority group members by those who are cognitively overloaded (Burgess, Fu, & van Ryn, 2004). Several of the dyads in healthcare that this study aims to examine are: physician-patient; nurse-patient; mental health provider-patient (including psychologists and social workers); and physical therapist-patient. Physicians are at an increased risk of burnout compared to workers in other fields, with about 44% of U.S. physicians reporting burnout symptoms (Shanafelt et al., 2019). Physicians are also at increased risk for depression with approximately 42% screening positive for depression (Shanafelt et al., 2019). One of the most overworked populations of health service providers is intensive care unit nurses – the workload these nurses face impact the quality of care received by patients and the safety of the care (Carayon & Gurses, 2005; Gurses, Carayon, & Wall, 2009). Mental health providers report experiencing high rates of burnout as well, with social workers reporting some of the highest rates compared to psychologists and psychiatrists when it comes to mental exhaustion and lower job satisfaction (Morse, Salyers, Rollins, Monroe-DeVita, & Pfaher, 2012). Physical therapists are a group of health service providers that are often not included in studies of burnout. One

study found that factors which increased burnout among physical therapists included: working in a hospital and having seniority (Pustulka-Piwnik, Ryn, Krzywoszanski, & Stozek, 2014).

SIT requires that a person self-categorize into one group, essentially excluding themselves from another group. This self-categorization is a person's sense of who they are versus who they are not (Burford, 2012). Within the medical profession there are many types of specialties; the different groups can lead to feelings of in-group and out-group membership among different health service providers as well as between health service providers and patients (Burford, 2012). Research has shown that health service providers tend to hold on to their group identities (e.g. doctor versus nurse, doctor versus management, OB-GYN versus primary care, etc.) when they are at work and maintaining their specific in-group identity is important to them (Kriendler, Dowd, Star, & Gottschalk, 2012).

The Present Study

The proposed study assessed an interdisciplinary sample of health service provider SGM-related competency and identify theory-based correlates of SGM competency. It is important to have a measure that can be used across disciplines so that research results are more generalizable across disciplines. Additionally, theory-based correlates of SGM competency are important to identify as potential future training principles regarding combatting anti-SGM stigma and prejudice. Specific aims and hypothesis are provided below.

Aims and Hypotheses of the Present Study

Aim 1: Develop a valid and reliable SGM Health Professions Competency Survey that assesses health service provider SGM-related competency.

Hypothesis 1a: The Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM) will yield three subscales: knowledge, attitudes, and skills.

Hypothesis 2b: Subscales will have acceptable internal consistency.

Aim 2: Identify theory-based (i.e., SDO, RWA, and SIT) correlates of SGM competency.

Hypothesis 2a: As health service providers display higher levels of SDO they will display lower levels of SGM-competence.

Hypothesis 2b: As health service providers display higher levels of RWA they will display lower levels of SGM-competence.

Hypothesis 2c: As health service providers display greater majority social identities (e.g., heterosexual, health service provider) they will display lower levels of SGM-competence.

Aim 3: Testing SDO, RWA, and SIT can identify gaps and needs in provider/student SGM competency and related correlates toward the goal of implementation and evaluation of a future SGM competency-based training for healthcare providers.

Hypothesis 3a: Controlling for covariates, SDO will explain significant and moderate sized variance in provider SGM-related competency.

Hypothesis 3b: Controlling for covariates, RWA will explain significant and moderate sized variance in provider SGM-related competency.

Hypothesis 3c: Controlling for covariates, social identity will explain significant and moderate sized variance in provider SGM-related competency.

Methodology

Study Design

Utilizing insight from study one, a survey designed to measure health service provider SGM competency was developed (see Appendix A). Data was collected online in a single time point survey collection. The independent variables were the theory-based correlates of SGM competency, measured by the Social Identity Scale, the Social Dominance Orientation (SDO) Scale (Pratto, et al, 1994), and the Right-Wing Authoritarianism Scale (Altemeyer, 2006). The dependent variable was the SGM competency of the health service providers, measured by the SGM Health Literacy Quiz, the Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM), and the Sexual Orientation Counselor Competency Scale (SOCCS; Bidell, 2005).

Community Partners

Utilizing a community-engaged design (e.g., Michener et al., 2013), project partners were five health professions training programs: (1) University of North Carolina at Charlotte Bachelor of Social Work (BSW) program, (2) University of North Carolina at Charlotte Master of Social Work (MSW) Program, (3) University of North Carolina at Charlotte Master of Science in Nursing (MSN) Program, (4) Loyola University Maryland Doctor of Psychology (PsyD) Program and (5) University of Cincinnati Master of Science in Mental Health Counseling (MS) Program. Project partners also included: (1) Charlotte Transgender Healthcare Group, a multi-disciplinary group of licensed medical and mental health care providers working with gender-diverse individuals in the Charlotte, NC area (http://cthcg.org/); (2) Body Connect Health & Wellness, a progressive health and wellness center dedicated to providing patients with personalized, comprehensive care (http://bodyconnecthw.com/); and the (3) American

Association of Suicidology (AAS), a non-profit organization dedicated to the prevention of suicide whose members include mental health and public health professionals (https://suicidology.org/). Letters of support were obtained from each community partner (see Appendices B, C, D, E, F, G, and H). The overarching community-engaged goal was to translate study findings to the design of an SGM competency-based education or training program for health service students and providers at a later date.

Participants

Participants included current health service students enrolled in the five health professions training programs previously named as well as practicing health service professionals. Inclusion criteria for the study required that participants be 18 years of age or older and currently enrolled in one of the health profession training programs or a currently practicing health service professional, such as a doctor, nurse, or psychologist. A series of power analyses were run to determine an appropriate sample size.

Scale development literature suggests a sample size of as few as 50 (de Winter, Dodou, & Wieringa, 2009) or about 10 participants per item on a scale (DeVellis, 2017) for aim 1 EFA analyses, which translated to 230 participants. G*Power was used to determine the required sample size range to detect effects in a MANOVA framework using the following parameters: alpha = .05; beta = .80; effect size varied from small to moderate; number of predictors varied from 10 to 15 (to account for a high number of demographic covariates), and 7 outcomes (i.e., total health literacy score, 3 SOCCS subscale, and 3 anticipated HCAF-SGM subscale). The required sample size range necessary to achieve study aim 3 analyses ranged from 64 to 120.

Participants ($N = 155$) were, on average 37.59 years old ($SD = 12.08$). Participants were mostly female (75.5%), heterosexual (60.6%), White (85.2%), and not of Hispanic/Latinx origin

(96.1%). The majority of participants (69.7%) had earned a Master's degree or a doctorate (e.g.,

PhD, MD, DO). All participants indicated they knew at least one person who was LGBTQ+. Full

participant demographics are presented in Table IV.1.

Table IV.1. Sample Demographic and Descriptive Information

Variable*	N (Sample %)	*M* (*SD*)	Skewness (Std. Error)	Kurtosis (Std. Error)
Community Partner				
AAS	16 (10.3)	-	-	-
Body Connect	13 (8.4)	-	-	-
UNCC BSW	8 (5.2)	-	-	-
CTHCG	73 (47.1)	-	-	-
Loyola	14 (9.0)	-	-	-
UNCC MSN	16 (10.3)	-	-	-
UNCC MSW	10 (6.5)	-	-	-
UCC	5 (3.2)	-	-	-
Gender Identity				
Male	28 (18.1)	-	-	-
Female	117 (75.5)	-	-	-
Male-to-Female	1 (0.6)	-	-	-
Female-to-Male	3 (1.9)	-	-	-
Non-Binary	6 (3.9)	-	-	-
Sexual Orientation				
Heterosexual	94 (60.6)	-	-	-
Gay	14 (9.0)	-	-	-
Lesbian	12 (7.7)	-	-	-
Bisexual	21 (13.5)	-	-	-
Other•	14 (9.0)	-	-	-
Race				
White	132 (85.2)	-	-	-
Black	8 (5.2)	-	-	-
Native American	1 (0.6)	-	-	-
Asian	11 (7.1)	-	-	-
Multiracial	1 (0.6)	-	-	-
Other°	1 (0.6)	-	-	-
Declined to State	1 (0.6)	-	-	-
Ethnicity				
Non-Hispanic/Latinx	149 (96.1)	-	-	-
Hispanic/Latinx	6 (3.9)	-	-	-

Table IV.1. Continued

Variable*	N (Sample %)	*M* (*SD*)	Skewness (Std. Error)	Kurtosis (Std. Error)
Highest Degree Earned				
High School	8 (5.2)	-	-	-
Associates	3 (1.9)	-	-	-
Bachelors	25 (16.1)	-	-	-
BSW	3 (1.9)	-	-	-
BSN	5 (3.2)	-	-	-
Masters	33 (21.3)	-	-	-
MSW	7 (4.5)	-	-	-
MSN	2 (1.3)	-	-	-
Master in Psych./Couns.	8 (5.2)	-	-	-
MEd	1 (0.6)	-	-	-
MPT	1 (0.6)	-	-	-
Doctorate/PhD	27 (17.4)	-	-	-
MD	10 (6.5)	-	-	-
DO	2 (1.3)	-	-	-
DNP	2 (1.3)	-	-	-
DPT	5 (3.2)	-	-	-
DPharm	1 (0.6)	-	-	-
DSW	1 (0.6)	-	-	-
PsyD	7 (4.5)	-	-	-
DMin	1 (0.6)	-	-	-
Other	3 (1.9)	-	-	-
U.S. Region Degree Received**				
Northeast	17 (10.9)	-	-	-
Midwest	24 (15.4)	-	-	-
South	92 (59.3)	-	-	-
West	16 (10.2)	-	-	-
Multiple	5 (3.2)	-	-	-
Declined to State	1 (0.6)	-	-	-
Clinical Specialty				
Children/Adolescents	15 (9.7)	-	-	-
Ment. Health/Couns.	28 (18.1)	-	-	-
Social Work	6 (3.9)	-	-	-
Nursing	10 (6.5)	-	-	-
General Medicine	10 (6.5)	-	-	-
LGBTQ+	14 (9.0)	-	-	-
Women's Health	7 (4.5)	-	-	-
Pelvic Floor/Sex. Health	10 (6.5)	-	-	-
Trauma	12 (7.7)	-	-	-
Other	15 (9.7)	-	-	-
Declined to State	28 (18.1)	-	-	-

Table IV.1. Continued

Variable*	N (Sample %)	*M (SD)*	Skewness (Std. Error)	Kurtosis (Std. Error)
Discipline				
Currently a Student	4 (2.6)	-	-	-
Medicine	18 (11.6)	-	-	-
Clinical Psychology	20 (12.9)	-	-	-
Social Work	23 (14.8)	-	-	-
Ment. Health/Couns.	46 (29.7)	-	-	-
Nursing	12 (7.7)	-	-	-
Physical Therapy	10 (6.5)	-	-	-
Other	13 (8.4)	-	-	-
Declined to State	9 (5.8)	-	-	-
LGBTQ+ Persons Known***				
Acquaintance	105 (67.7)	-	-	-
Friend	141 (91.0)	-	-	-
Family Member	89 (57.4)	-	-	-
Other†	44 (28.4)	-	-	-
Age (in years)****	-	*37. 59 (12.08)*	.66 (.22)	-.55 (.44)
Years of Experience*****	-	*10.70 (9.79)*	1.11 (.20)	.33 (.39)
Formal Training Hours******	-	*41.33 (104.18)*	6.09 (.19)	48.60 (.39)
LGBTQ+ Patients*******	-	*219.94 (777.66)*	5.98 (.20)	39.48 (.39)
Institutional Climate	-	*5.79 (1.34)*	-1.66 (.19)	3.20 (.39)
Political Identity	-	*2.33 (1.34)*	1.06 (.19)	.82 (.39)
SOCCS Knowledge Subscale	-	*5.49 (.97)*	-1.00 (.19)	.78 (.39)
SOCCS Attitude Subscale	-	*6.87 (.41)*	-4.71 (.19)	24.75 (.39)
SOCCS Skill Subscale	-	*5.00 (1.50)*	-.45 (.19)	-.80 (.39)
SDO	-	*21.57 (8.06)*	2.34 (.19)	6.71 (.39)
RWA	-	*35. 36 (17.56)*	2.11 (.19)	5.76 (.39)
SGM Health Literacy Quiz	-	*92.23 (6.98)*	-1.32 (.19)	3.12 (.39)
Health Care Professional	-	*6.22 (1.42)*	-2.33 (.19)	5.20 (.39)
Straight/Heterosexual	-	*4.57 (2.61)*	-.45 (.19)	-1.60 (.39)
Cisgender	-	*6.06 (1.92)*	-2.07 (.19)	2.70 (.39)

Table IV.1. Continued

Variable*	N (Sample %)	M (SD)	Skewness (Std. Error)	Kurtosis (Std. Error)
American	-	6.45 (.99)	-2.15 (.19)	4.66 (.39)
Christian	-	3.43 (2.41)	.31 (.19)	-1.56 (.39)
Medical Patient	-	4.81 (1.94)	-.63 (.19)	-.71 (.39)
LGTBQ+	-	3.74 (2.65)	.17 (.19)	-1.79 (.39)
TGNC	-	1.75 (1.65)	2.34 (.19)	4.36 (.39)
Immigrant	-	1.70 (1.54)	2.30 (.19)	4.33 (.39)
Jewish	-	1.69 (1.69)	2.41 (.19)	4.36 (.39)
Muslim	-	1.15 (.76)	5.83 (.19)	36.32 (.39)
Atheist/Agnostic	-	3.57 (2.34)	.14 (.19)	-1.55 (.39)

Notes: M = Mean; SD = Standard Deviation; *Definitions of Variable Acronyms: AAS = American Association of Suicidology; Body Connect = Body Connect Health & Wellness; UNCC BSW = University of North Carolina at Charlotte Bachelor of Social Work; CTHCG = Charlotte Transgender Healthcare Group; Loyola = Loyola University Maryland Doctor of Psychology; UNCC MSN = University of North Carolina at Charlotte Master of Science in Nursing; UNCC MSW = University of North Carolina at Charlotte Master of Social Work; UCC = University of Cincinnati Master of Science in Counseling; BSW = Bachelor of Social Work; BSN = Bachelor of Nursing; MSW = Master of Social Work; MSN = Master of Social Work; Master in Psych./Couns. = Master in Psychology or Mental Health Counseling; MEd = Master in Education; MPT = Master in Physical Therapy; Doctorate/PhD = Doctor of Philosophy; MD = Medical Doctor; DO = Doctor of Osteopathy; DNP = Doctor of Nursing Practice; DPT = Doctor of Physical Therapy; DPharm = Doctor of Pharmacy; DSW = Doctor of Social Work; PsyD = Doctor of Psychology; DMin = Doctor of Ministry; Ment. Health/Couns. = Mental Health and/or Counseling; Pelvic Floor/Sex. Health = Pelvic Floor/Sexual Health; LGBTQ+ = Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual, and other; SOCCS = Sexual Orientation Counselor Competency Scale; SDO = Social Dominance Orientation; RWA = Right Wing Authoritarianism; SGM = Sexual and Gender Minority; Cisgender = gender identity matches the gender assigned at birth; TGNC = Transgender and Gender Non-conforming.**Categories defined by the U.S. Census.***Multiple selections allowed. **** 36 participants declined to provide their age. ***** 3 participants declined to provide the number of years of experience they have providing healthcare services. ******1 participant declined to provide the number of formal training hours they have in providing LGBTQ+ healthcare. ******* 3 participants declined to provide the number of LGBTQ+ patients they are aware they have cared for during their career. •Responses for "Other" in the Sexual Orientation category included: pansexual, queer, demisexual, polysexual, androphyllic, asexual, and panromantic. °The participant who indicated "Other" in the Race category wrote in Hispanic for race. †Responses written in for the "Other" category for LGBTQ+ Persons known included: self, partners, spouses, supervisors, professors, mentors, healthcare providers, patients, clients, co-workers, colleagues, and classmates.

Procedure

The current study was approved by the dissertation committee, the University of North Carolina at Charlotte's Institutional Review Board, and Old Dominion University's Institutional Review Board through an Institutional Review Board Authorization Agreement. Participants were recruited through program email contact lists (see Appendix I, J, K, and L) and community partner listservs (see Appendix M). Community partner listservs included U.S. Division of World Professional Association of Transgender Health and Mecklenburg Psychological Association and social media groups (such as LGBQIA and Trans Affirming Therapists and DMV Pelvic Floor Physical Therapy) for health service professionals. After initial distribution, follow-up posts and distributions were provided twice by each community partner (Sanchez-Fernandez, Munoz-Leiva, & Montoro-Rios, 2012).

Data was collected using a single time-point, anonymous survey lasting approximately 15-20 minutes, administered via Qualtrics software (2020). Participants were able to take the survey in a setting of their choosing assuring anonymity and they were able to complete the survey at their own pace. Personally identifying information (e.g., name, date of birth, address) was not collected. Informed consent and debriefing forms were provided as part of the online survey. The informed consent document (Appendix N) included a summary of the research project, researcher contact information, and potential benefits and risks of the study. Clicking through to the survey indicated consent to participate in the study after reading the informed consent page. The debriefing document covered study aims and researcher contact information (see Appendix O). Participation in the survey was incentivized by offering participants the chance to win one of 10 $25.00 e-gift cards. Such an incentive is appropriate, common, and ethical and has been shown to enhance response and completion rates (e.g., Laguilles, Williams,

& Saunders, 2011). Once participants completed the survey they were asked if they wanted to enter their email address into a separate survey link for the random gift card drawing.

Data collection occurred between January and March 2020 in two waves. Initially, the survey was sent to students in identified programs at the University of North Carolina at Charlotte as well as to listservs identified by the Charlotte Transgender Healthcare Group and Body Connect Health & Wellness. After three weeks of data collection (with a survey reminder out sent to potential participants by community partners), there were a total of 140 responses, which was below the projected sample size. The decision was made to recruit additional community partners at this time. Five additional community partners were identified due to initial low responding from initial partners, allowing the project to go back under Institutional Review Board consideration with an addendum. Once approved by the Institutional Review Board, the survey was sent to the new community partners for distribution, where three of the community partner sites had active participants. After another three weeks of data collection (with a reminder to participants), there were 215 participants total, exceeding the goal of 200. Upon data cleaning, 60 participants were dropped due to complete missing data on variables of interest, yielding a final sample size of 155.

Measures (see Appendix A)

Item development was reviewed by four health service professionals (a PhD level professional in Health Services Research, a PhD level professional in Clinical Psychology, an MD trained in Family Medicine, and a Masters level trained Vice President of Diversity & Inclusion at a medical school) to ensure appropriate survey length and culturally appropriate phrasing.

Demographics. Using U.S. Census categories (U.S. Census Bureau, 2010) where applicable, the demographics section requested age, gender identity, sexual orientation, race, ethnicity, political orientation (i.e., conservative to liberal), highest education level, current degree sought, and clinical specialty. Participants were asked how many years of experience they have providing health care, number of formal hours of training received regarding SGM patients, first-hand care experience for an SGM patient, personal relationships with anyone who identifies as SGM, and perceptions of institutional climate concerning SGM individuals.

SGM Competency

SGM Health Literacy. The Sexual and Gender Minority Health Literacy Quiz (Cramer et al., 2018) consists of 15 true/false items that were derived from a psycho-educational training concerning LGBT identity, victimization and health. Consistent with Item Response Theory, items are intended to possess varying levels of difficulty (DeVellis, 2017). Percent correct rate for items ranged from 40.7% to 100.0%. Sample questions (T/F response in parentheses) include: "there are only three types of sexual orientation categories" (False) AND "gender identity is the extent to which one views themselves as male or female" (True).

Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM). The HCAF-SGM developed for this study as a comprehensive tool to capture health service provider perceived skills working with SGM patients. In total, it contains 23 items (see Appendix A) derived from the APA (2011; 2015) and Association of American Medical Colleges' (AAMC, 2014) guidelines on caring for SGM patients. For example, item content includes coverage of skills ranging from utilization of SGM-culturally competent terminology to accounting for the unique stigma- and identity-based challenges faced by SGM persons. Sample items include statements such as "Know that LGBTQ+ individuals may face discrimination in

their everyday lives" and "Develop strategies to minimize the power imbalances between a health care provider and an LGBTQ+ patient." The measure is designed to assess the health providers' perceived level of competency caring for SGM patients. The scoring of the measure is based on the SCAF (Cramer et al., 2013), which uses a 4-point scale (with anchor points of $1 =$ incapable to $4 =$ advanced). With the HCAF-SGM, participants rate each skill on a 4-point scale $(1 =$ incapable to $4 =$ advanced) assessing perceived level of skill mastery.

   Sexual Orientation Counselor Competency Scale (**SOCCS;** Bidell, 2005)**.** The SOCCS is a 31-item measure designed to assess the attitudes, skills, and knowledge of counselors who work with lesbian, gay, and bisexual clients. Participants respond to items on a 7-point Likert scale ($1 =$ not at all true, $4 =$ somewhat true, $7 =$ totally), with higher scores indicating higher perceived levels of competence. Fourteen of the 31-items are reverse coded and then each of the items are summed within their respective subscale (attitude, knowledge, or skill) to give a score in that competency area. It has an overall internal consistency of .90, with the attitudes subscale scoring .88, the skills subscale scoring .91, and the knowledge subscale scoring .76. Cronbach's alpha in the present sample is .90 overall, with the attitudes subscale scoring .92, the skills subscale scoring .92, and the knowledge subscale scoring .83. The original SOCCS was designed to be used with mental health counselors working with LGB patients. A revised version [known as the gender identity counselor competency scale (GICCS); O'Hara, Dispenza, Brack, & Blood, 2013] was created to be used by mental health counselors working with transgender and gender nonconforming patients. At the recommendation of the survey review panel, several changes were made to the SOCCS for inclusion in this study. The implemented changes include: three items were added to the attitude subscale regarding gender identity; two items in the skill subscale regarding therapy with gay and lesbian clients was consolidated into one item regarding

LGBTQ+ clients; and the entire scale was reworded to reflect more up-to-date cultural language (LGBTQ+ and gender identity). Essentially, the version that was created for this study is a combination of the original SOCCS and the GISSC, utilizing the term LGBTQ+ instead of LGB and T separately. These revisions were necessary in order to create an SGM competency measurement tool that can be used across health service provider disciplines.

Theory Measures

Social Identity Scale. Consistent with literature on Social Identity Theory (e.g., Murphy, Cramer, Waymire, & Barkworth, 2018), a set of Social Identity items was generated for the present proposal. Specifically, the scale consists of 12 items that are a mix of perceived high-status majority groups (e.g., healthcare professional, heterosexual) and low status minority groups (e.g., patient, sexual orientation minority) groups. Identity scores were used at the individual item level as well as subtracting minority values from majority in order to capture overall identity scores (e.g., medical provider-patient, sexual orientation majority-minority) dyad-based identities.

Social Dominance Orientation (SDO) Scale (Pratto, Sidanius, Stallworth, & Malle, 1994). This is a 16-item scale designed to measure one's degree of preference for social inequality among groups. Half the items indicate approval of inequality and the other half indicate approval of equality. Sample items include "Some groups of people are just more worthy than others" and "It would be good if all groups could be equal." Participants respond to items on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree), with higher scores indicating higher levels of SDO. Eight of the 16-items are reverse coded and then all of the items (using the reverse coded items), are summed for a total SDO score. The measure was developed by testing participants' acceptance of "legitimatizing myths" in the areas of ethnic prejudice,

nationalism, cultural elitism, sexism, political-economic conservatism, noblesse-oblige, and meritocracy. Overall, SDO was found to be higher in men. It was also significantly correlated with opposition to SGM rights (Pratto et al., 1994). The Cronbach's alpha for the measure is .90 (Pratto et al., 1994). Cronbach's alpha in the present sample is .85.

   Right-Wing Authoritarianism (RWA) Scale (Altemeyer, 2006). This is a 20-item scale designed to measure the degree that individuals defer to established authorities, show aggression to out-groups when authorities sanction such aggression, and support traditional values, especially when those values are endorsed by authorities. Sample items include "Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us" and "Gays and lesbians are just as healthy and moral as anybody us." Participants respond to items on a 9-point Likert scale (-4 = very strongly disagree, +4 = very strongly agree), with higher scores indicating higher levels of RWA. Ten of the 20-items are reverse coded and then all of the items (using the reverse coded items), are summed for a total RWA score. The Cronbach's alpha for the overall measure is .90 (Altemeyer, 2006). Cronbach's alpha in the present sample is .91.

Results

Pilot Data

   Pilot data were collected from a mid-Atlantic School of Nursing Master of Science in Nursing and Doctor of Nursing Practice programs to develop and test the HCAF-SGM for content validity and reliability. The sample size was 29 participants, collected online utilizing a single time point survey. Principal components analysis and internal consistency were run on the data.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Value was acceptable (KMO = .73), indicating the presence of meaningful relationships among the HCAF-SGM items. The Bartlett's Test of Sphericity indicates the presence of meaningful correlations among the factors, $x_2(253) = 856.86$, $p < .001$. Visual inspection of the scree plot and the initial Eigenvalues suggest the possibility of two subscales, however all 23-items loaded positively on Factor 1 (λ range = .62 to .91). Therefore, all items were treated as a sum total score. The HCAF-SGM total score displayed good internal consistency (α = .98).

Primary Data Collection: Preliminary Analyses

All statistical analyses were completed with SPSS Version 26. To examine statistical assumptions, skewness and kurtosis were assessed. Pearson correlations and between-groups tests (i.e., ANOVA and independent samples T-test) were conducted to identify potential demographic control variables for later SGM competence analyses. To examine independence of the predictors, bivariate tests were used to examine how predictor variables (i.e., SDO, RWA, and SIT) relate to one another.

Thirty-one items of interest had missing data. Multiple imputation was used to account for missing data as is consistent with recommended approaches in the statistical literature (e.g., Enders, 2017). Missing values were imputed based upon existing responses to the variables of interest (i.e., SGM Health Literacy quiz, HCAF-SGM, SOCCS, SIT, SDO, and RWA). The model was run with a total of five imputations; imputed values were checked to ensure they fell within appropriate item response ranges.

Primary Analyses

Aim 1. Develop a valid and reliable SGM Health Professions Competency Survey that assesses health service provider SGM-related competency.

Analyses: Exploratory factor analysis (EFA) was used to evaluate potential multiple factors of the HCAF-SGM. EFA specification included oblique promax rotation with maximum likelihood extraction. These parameters were selected to evaluate the expected possibility of correlated factors and to identify an ideally simple structure. As is consistent with scale development guidelines (e.g., DeVellis, 2017) and measurement development in health professions competency (e.g., Cramer, Ireland, Long, Hartley, & Lamis, 2019), a factor-loading cut-off of .40 was used for retaining items. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Value was ideal (KMO = .97), indicating the presence of meaningful relationships among the HCAF-SGM items. Additionally, the Bartlett's Test of Sphericity indicates the presence of meaningful correlations among the factors, $x_2(253) = 3,458.18$, $p < .001$.

Visual inspection of the scree plot (see Figure IV.1) and the initial Eigenvalues (Factor 1 Eigenvalue = 15.05, accounted for 65.41% of the variance; Factor 2 Eigenvalue = 1.14, accounted for 4.97% of the variance) suggest the possibility of two subscales. Factor loading patterns can be seen in Table IV.2. All 23 items loaded significantly on both factors (Factor 1 λ range = .55 to .84; Factor 2 λ range = .61 to .92). Although the scree plot and Eigenvalues suggested the potential of two factors, such a high degree of item cross-loading supports presence of one factor or a total score. Therefore, all items were treated as a sum total score. The HCAF-SGM total score displayed good internal consistency ($\alpha = .97$).

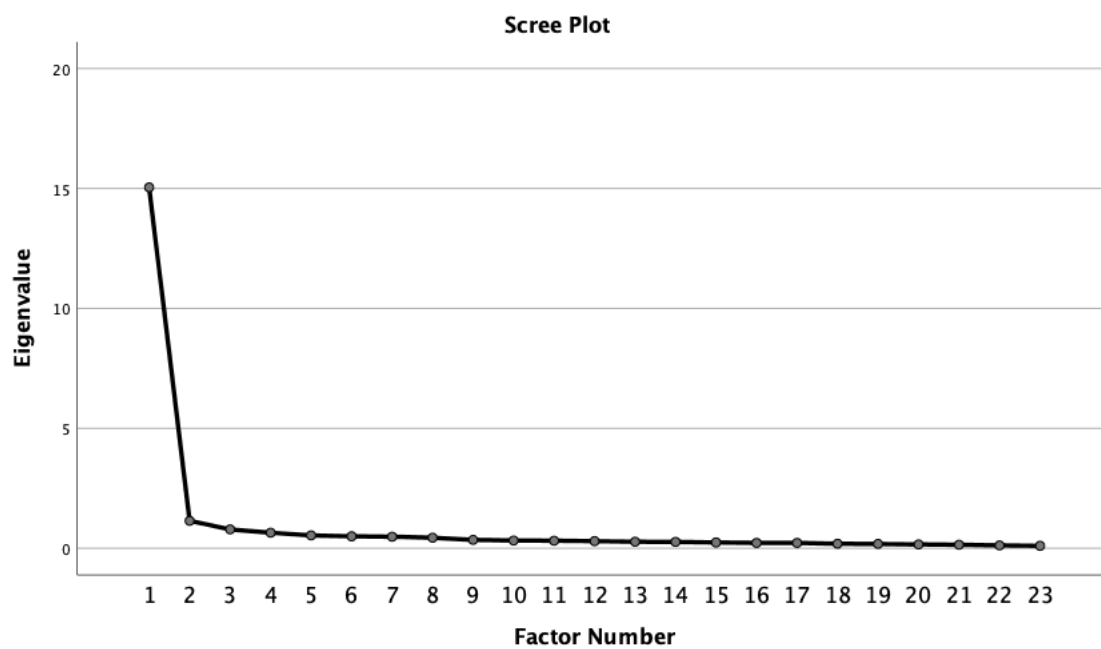Figure IV.1. Scree Plot for Exploratory Factor Analysis

Table IV.2. HCAF-SGM Exploratory Factor Analysis Factor Loadings

HCAF-SGM Item		Factor 1	Factor 2
1	Manage your attitudes and reactions toward LGBTQ+ individuals.	.82	.70
2	Understand that LGBTQ+ families may face difficulties non-LGBTQ+ families do not.	.80	.66
3	Know that LGBTQ+ individuals may face discrimination in their everyday lives.	.74	.61
4	Understand how identifying as LGBTQ+ can affect their economic status.	.84	.80
5	Continue to seek out knowledge and training regarding best practices caring for LGBTQ+ individuals.	.81	.81
6	Be aware of misrepresentation/misunderstanding of research findings regarding LGBTQ+ individuals.	.81	.80
7	Distinguish between issues of gender identity and sexual orientation.	.84	.71
8	Recognize that LGBTQ+ families include individuals who are not legally or biologically related.	.81	.61
9	Consider the influence of spirituality and religion in the lives of LGBTQ+ persons.	.71	.62
10	Understand unique problems and risks that exist for LGBTQ+ youth.	.67	.66
11	Elicit relevant information regarding sexual orientation and gender identity (e.g., behavior, orientation, history).	.82	.85
12	Describe special health care needs of transgender and gender non-conforming (TGNC) persons.	.77	.92
13	Tailor physical exam and treatment recommendations to the unique needs of LGBTQ+ individuals.	.55	.74
14	Recognize the unique health risks and challenges often encountered by LGBTQ+ individuals.	.79	.91
15	Identify gaps in scientific knowledge and potentially harmful practices for LGBTQ+ individuals.	.71	.88
16	Develop strategies to minimize power imbalances between a health care provider and an LGBTQ+ patient.	.75	.82
17	Develop rapport with LGBTQ+ individuals and their families.	.84	.72
18	Respect the sensitivity of certain healthcare information pertaining to LGBTQ+ patient care.	.79	.73
19	Understand that implicit bias may adversely affect LGBTQ+ patient care.	.82	.67

Table IV.2. Continued

HCAF-SGM Item		Factor 1	Factor 2
20	Accept shared responsibility for eliminating LGBTQ+ health disparities.	.80	.73
21	Explain how to navigate the special legal and policy issues encountered by LGBTQ+ patients.	.68	.86
22	Partner with community resources that provide support for LGBTQ+ individuals.	.72	.74
23	Value the importance of interprofessional collaboration in providing culturally competent LGBTQ+ care.	.79	.68

Aim 2: Identify theory-based (i.e., SDO, RWA, and SIT) correlates of SGM competency.

Analyses: Bivariate correlations were used to evaluate the relationship between theoretical correlates (i.e., SDO, RWA, and SIT) and the HCAF-SGM score. Correlation coefficients can be seen in Table IV.3. Significant positive convergent associations were observed between the HCAF-SGM and SOCCS subscales of knowledge and skill (but not attitudes). Moreover, the HCAF-SGM demonstrated a significant positive association with SGM health literacy. The hypothesized negative association (hypothesis 2a) between SDO and lower HCAF-SGM scores was not supported. However, the hypothesized negative association (hypothesis 2b) between RWA and lower HCAF-SGM scores was supported. The hypothesized negative association (hypothesis 2c) between health service providers who endorse greater majority social identities (e.g., heterosexual, health service provider) and lower HCAF-SGM scores was partially supported. Contrary to expectations, there was a moderate positive correlation between the HCAF-SGM and the identity of "Healthcare Professional." There was a small positive correlation between the HCAF-SGM and the identity "American." However, there

were small negative correlations between the HCAF-SGM and the identities of "Heterosexual" "Cisgender" and "Christian." It should also be noted that health service providers who endorsed minority social identities (specifically related to healthcare and sexual orientation and gender identity), had positive correlations with the HCAF-SGM. There was a small positive correlation between the HCAF-SGM and the identity of "Medical Patient." There was a moderate positive correlation between the identities of "Sexual Orientation Minority" and "Gender Identity Minority." There was a small positive correlation between the HCAF-SGM and the identities of "Jewish," "Muslim," and "Atheist/Agnostic." There was a small negative correlation between the HCAF-SGM and the identity "Immigrant."

Table IV.3. Correlation Coefficients Between the Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF – SGM) and Theoretical Variables of Interest

	HCAF SGM	SOCCS KNWL	SOCCS ATT	SOCCS SKL	SGM HL	SDO	RWA	HCP	Hetero	Cis
HCAF - SGM	-	.46***	.12	.86***	.25**	-.09	-.23***	.45***	-.27***	-.21**
SOCCS KNWL		-	.33***	.42***	.28***	-.34***	-.55***	.20**	-.21**	-.12
SOCCS ATT			-	.18*	.36***	-.47***	-.67***	-.01	-.13	-.04
SOCCS SKL				-	.26***	-.18*	-.31***	.51***	-.18*	-.18*
SGM HL					-	-.30***	-.39***	.08	-.09	-.07
SDO						-	.56***	-.04	.07	-.03
RWA							-	-.07	.25**	-.01
HCP								-	.08	-.05
Hetero									-	.17*
Cis										-

Table IV.3. Continued

	American	Christian	Patient	LGBQ	TGNC	Immigrant	Jewish	Muslim	Agn./Ath.
HCAF – SGM	.07	-.20	.25***	.35***	.36***	-.14	.22**	.12	.12
SOCCS KNWL	.01	-.29***	.21**	.23**	.23**	-.10	.05	-.05	.15
SOCCS ATT	.14	-.19*	.12	.07	-.06	-17*	-.03	-.26**	.17*
SOCCS SKL	.11	-.17*	.23**	.27**	.27**	-.14	.19*	.06	.10
SGM HL	.09	-.06	.19*	.12	.07	-.14	.02	-.12	.07
SDO	-.27***	.06	-.14	.01	.08	.12	-.10	.18**	.01
RWA	-.10	.37***	-.13	-.20**	-.05	.14	-.09	.09	-.30***
HCP	.19*	.002	.19*	-.01	.08	-.17*	.14	-.03	-.05
Hetero	.02	.39***	-.12	-.88***	-.31***	.04	.02	-.05	-.25**
Cis	-.02	.01	-.16*	-.25***	-.66***	.12	-.07	-.04	-.02
American	-	.10	.21**	.001	-.01	-.49***	.08	-.26***	-.08
Christian		-	-.07	-.30***	-.20**	-.11	-.26***	-.01	-.62***
Patient			-	.16*	.20*	-.15	.01	-.001	.02
LGBQ				-	.41***	-.07	-.02	.16*	.16*
TGNC					-	-.03	.20*	.21**	.13
Immigrant						-	-.01	.08	.09
Jewish							-	.19*	-.03
Muslim								-	-.03
Agn./Ath.									-

Note: HCAF - SGM = Mean Score used in calculations; SOCCS = Sexual Orientation Counselor Competency Scale; SOCCS KNWL = Knowledge Subscale; SOCCS ATT = Attitude Subscale; SOCCS SKL = Skill Subscale; SGM HL = Sexual and Gender Minority Health Literacy; SDO = Social Dominance Orientation; RWA = Right Wing Authoritarianism; HCP = Healthcare Professional; Hetero = Heterosexual; Cis = Cisgender; LGBQ = Sexual Orientation Minority; TGNC = Gender Identity Minority; Agn./Ath. = Agnostic/Atheist; *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Analysis of Demographic Covariates for Aim 3 Analyses

A series of statistical analyses were performed to identify the covariates for Aim 3. Overall race was reclassified into White versus Racial Minority due to low cell counts in some of the original race categories. An independent samples t-test was conducted to compare the HCAF-SGM score by race. There was no significant difference in the scores for white participants ($M = 3.03$, $SD = .70$) and racial minority participants ($M = 2.86$, $SD = .61$); $t(152) = 1.14$, $p = .26$. These results suggest that participants' racial identity has no effect on their overall provider related SGM-competency.

A one-way ANOVA was conducted to compare the effect of the data source on the HCAF-SGM score. The effect of the data source on the HCAF-SGM score was significant, $F(7, 147) = 12.36$, $p < .001$. Bonferroni post-hoc comparisons were carried out. The participants responding to the survey from the Charlotte Transgender Healthcare Group ($M = 3.37$, $SD = .58$) reported significantly higher HCAF-SGM scores compared to: the participants from the University of North Carolina at Charlotte (UNCC) Bachelors of Social Work program ($M = 1.99$, $SD = .58$, $p < .001$); the participants from the Loyola University Maryland Doctor of Psychology program ($M = 2.38$, $SD = .30$, $p < .001$); the participants from the UNCC Masters of Nursing program ($M = 2.77$, $SD = .57$, $p = .004$); and the participants from the UNCC Masters of Social Work program ($M = 2.63$, $SD = .59$, $p \cong .003$). The participants responding to the survey from the American Association of Suicidology (AAS) ($M = 2.92$, $SD = .57$) listserv reported significantly higher HCAF-SGM scores compared to the participants from the UNCC Bachelor of Social Work program ($M = 1.99$, $SD = .58$ $p = .004$). The participants responding to the survey from Body Connect Health & Wellness ($M = 3.06$, $SD = .52$) reported significantly higher HCAF-SGM scores compared to the participants from the UNCC Bachelor of Social Work

program ($M = 1.99$, $SD = .58$, $p = .001$). The participants responding to the survey from the

UNCC Master of Nursing program ($M = 2.77$, $SD = .57$) reported significantly higher HCAF-

SGM scores compared to the participants from the UNCC Bachelor of Social Work program (M

$= 1.99$, $SD = .58$, $p = .04$). These results suggest that study participants invested in a transgender

specialty health care group feel as though they have adequate to exceptional training when it

comes to caring for SGM patients.

A one-way ANOVA was conducted to compare the effect of gender identity on the

HCAF-SGM score. Gender identity was reclassified into three categories [Male, Female, and

transgender and gender non-conforming (TGNC)] due to low cell counts in some of the original

categories. The effect of gender identity on the HCAF-SGM score was significant, $F(2, 152) =$

10.64, $p < .001$. Bonferroni post-hoc comparisons were carried out. TGNC participants ($M =$

3.80, $SD = .25$) reported significantly higher HCAF-SGM scores compared to males ($M = 3.19$,

$SD = .67$, $p = .04$) and females ($M = 2.89$, $SD = .66$, $p < .001$). No other significant effects for

gender identity were found. These results suggest that participants who identify as a gender

minority have higher SGM competency.

A one-way ANOVA was conducted to compare the effect of sexual orientation on the

HCAF-SGM score. The effect of sexual orientation on HCAF-SGM scores was significant, $F(4,$

$150) = 6.31$, $p < .001$. Bonferroni post-hoc comparisons were carried out. Heterosexual

participants ($M = 2.86$, $SD = .63$) reported significantly lower HCAF-SGM scores compared to

gay participants ($M = 3.45$, $SD = .55$, $p = .02$) and "Other" participants ($M = 3.59$, $SD = .48$, $p <$

$.001$). Bisexual participants ($M = 2.83$, $SD = .78$) reported significantly lower HCAF-SGM

scores compared to "Other" participants ($M = 3.59$, $SD = .48$, $p = .01$). These results suggest that

participants who identify as a sexual orientation minority have higher SGM competency.

A one-way ANOVA was conducted to compare the effect of participants' highest degree earned on the HCAF-SGM score. Highest degree earned was reclassified into five broad categories (High School/Associates/Other, Bachelors, Masters, PhD/ Other Doctoral degrees, and Medical Doctors/Doctors of Osteopathy) due to low cell counts in some areas. The effect of highest degree earned on HCAF-SGM scores was significant, $F(4, 150) = 4.03, p < .001$. Bonferroni post-hoc comparisons were carried out. Participants with a high school diploma/associates degree or "other" ($M = 2.49, SD = .81$) reported significantly lower HCAF-SGM scores compared to those with a master's degree ($M = 3.04, SD = .66, p = .03$), doctoral degree ($M = 3.15, SD = .62, p = .01$) and a medical degree ($M = 3.77, SD = .16 p < .001$). Participants with a bachelor's degree ($M = 2.66; SD = .81$) reported significantly lower HCAF-SGM scores compared to those with a doctoral degree ($M = 3.15, SD = .62, p = .01$) and a medical degree ($M = 3.77, SD = .16 p < .001$). Participants with a master's degree ($M = 3.04, SD = .66$) reported significantly lower HCAF-SGM scores than those with a medical degree ($M = 3.77, SD = .16 p = .002$). Participants with a doctoral degree ($M = 3.15, SD = .62$) reported significantly lower HCAF-SGM scores than those with a medical degree ($M = 3.77, SD = .16, p =.02$. These results suggest that participants who hold a higher level of education have higher SGM competency. Furthermore, the results indicate that medical doctors feel they have more advanced SGM training than other health service professionals feel they do.

A one-way ANOVA was conducted to compare the effect of the U.S. Census region on the HCAF-SGM score. State of degree earned was reclassified into the U.S. Census regions due to low cell counts for each state. The effect of the training region on HCAF-SGM scores was significant, $F(3, 150) = 2.03, p = .004$. Bonferroni post-hoc comparisons were carried out. Participants who earned their highest degree in the south ($M = 2.87, SD = .68$) reported

significantly lower HCAF-SGM scores compared to those who earned their degree in the West (M = 3.46, SD = .45, p = .01). No other significant effect for training region was found. These results suggest that participants' training region may have an impact on SGM competency.

Due to potential confounding of data source with education, a follow-up Pearson Chi-square was conducted. If significant, results may indicate covariation between these two variables, thereby suggesting retention of only one of the variables for Aim 3 analyses. A Pearson Chi-square was performed to examine the relationship between the data source (collapsed into Charlotte Transgender Healthcare Group versus Special Interest Groups) and highest degree earned. A significant effect was found, χ_2 (4, N = 155) = 44.44, p < .001. Percentages and frequency counts by cell can be seen in Table IV.4. Results indicate a significant association between data source and education level; specifically, more participants from the Charlotte Transgender Healthcare Group have a higher education level than all other participants. Therefore, data source and education are not independent of one another. Consequently, data source will be retained for Aim 3 analyses, as it is a better predictor of the HCAF-SGM score than education level.

Table IV.4. Highest Degree Earned by Data Source

| | | Data Source Recoded | | Total |
		CTHCG	Other	
Highest Degree Earned	HS/Associates/Other	2	12	14
		2.7%	14.6%	9.0%
	Bachelors	3	30	33
		4.1%	36.6%	21.3%
	Masters	29	23	52
		39.7%	28.0%	33.5%
	Doctoral	26	17	43
		35.6%	20.7%	27.7%
	MD and DO	13	0	13
		17.8%	0.0%	8.4%
Total		73	82	155
		100%	100%	100%

Note: CTHCG = Charlotte Transgender Healthcare Group; Other = American Association of Suicidology; Body Connect Health and Wellness; UNCC Bachelor of Social Work Program; UNCC Master of Social Work Program; UNCC Master of Nursing Program; Loyola Maryland University Doctor of Psychology Program; University of Cincinnati Counseling Program; Educational Breakdown = HS/Associates/Other = High School, Associates, and Other; Bachelors = All Bachelor's degrees; Masters = All Masters degrees; Doctoral = PhD and other doctoral degrees; MD and DO = Medical Doctor and Doctor of Osteopathy

Bivariate correlations were used to evaluate the relationship between continuous demographic variables of interest (i.e., age, political identity, years of experience, formal training hours, number of known SGM patients, total known SGM persons, perceived institutional climate toward SGM persons) and the HCAF-SGM score. Correlation coefficients can be seen in Table IV.5. Significant positive associations were observed between the HCAF-SGM score with age, years of experience, SGM health training hours, SGM patients served, known SGM persons, and positive SGM institutional climate. There was a non-significant association between political identity and the HCAF-SGM score. Based on the exceedingly high correlation between age and years of experience, it was concluded that these two variables are systematically related to one another. Therefore, the decision was made to control only for years of experience in Aim 3

analyses, as using both variables would violate the basic assumption of regression, that all variables are independent of one another. Retaining years of experience is also preferable due to the number of participants who did not provide their age. Missing age data would limit the statistical power of Aim 3 analyses.

Based on the preceding analyses the following demographic variables will be controlled for in Aim 3 analyses: data source collapsed; gender identity; sexual orientation; U.S. region collapsed; years' experience; total SGM health training hours; number of SGM patients served; total number of SGM persons known; and institutional climate towards SGM persons.

Table IV.5. Correlation Coefficients Between the Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF – SGM) and Demographic Variables of Interest

	HCAF-SGM	Age	Political ID	Years Exp.	Trang. Hours	SGM Pts.	SGM Known	Climate
HCAF-SGM	-	.41***	-.12	.48***	.36***	.20*	.35***	.22**
Age		-	.01	.89***	.42***	.21*	.26**	.19*
Political ID			-	.001	.02	-.09	-.06	-.01
Years Exp.				-	.34***	.21**	.19*	.17
Trng. Hours					-	.11	.28***	.12
SGM Pts.						-	.10	.12
SGM Known							-	.05
Climate								-

Note: HCAF - SGM = Mean Score used in calculations; Age reported in years; Political ID = Political Identity; Years Exp. = Number of years of experience providing medical or healthcare services; Trng = Training; SGM Pts. = Number of Sexual and Gender Minority Patients; SGM Known = Total Number of Sexual and Gender Minority persons known; Climate = Perceived Institutional Climate toward SGM persons; $*p \leq .05$, $** p \leq .01$, $*** p \leq .001$.

Aim 3: Testing SDO, RWA, and SIT can identify gaps and needs in provider/student SGM competency and related correlates toward the goal of implementation and evaluation of a future SGM competency-based training for healthcare providers.

Analyses: A linear regression model was conducted to examine SDO, RWA, and social identity predictors of the HCAF-SGM score. Table IV.6 contains model and individual predictor-level statistics. The following covariates were controlled for: data source collapsed (reference group = Other than CTHCG); gender identity (reference group = TGNC); sexual orientation (reference group = Other); U.S. region collapsed (reference group = Non-south US Region); years' experience; total SGM health training hours; number of SGM patients served; total number of SGM persons known; and institutional climate towards SGM persons. In this model, the dependent variable was the HCAF-SGM score. The independent variables of interest were: SDO; RWA; and the following Social Identities: Health Care Professional, Medical Patient, Heterosexual, Sexual Minority, Cisgender, Gender Minority, and Jewish. All continuous predictors were centered prior to running analyses.

H3a was unsupported. SDO demonstrated a non-significant association with HCAF-SGM scores. H3b was partially supported. RWA demonstrated a small significant negative association with HCAF-SGM scores. H3c was partially supported. The identities of "Healthcare Professional" and "Sexual Orientation Minority" demonstrated small significant positive associations with HCAF-SGM scores.

Several regression model covariates also demonstrated significant associations with the HCAF-SGM score (see Table IV.6). The following notable patterns were observed. Participants from the Charlotte Transgender Healthcare Group (a specialty interest provider) were significantly more likely to score higher on the HCAF-SGM than other participants (moderate

effect). Finally, the years of experience and the total number of formal training hours

demonstrated small significant positive associations with HCAF-SGM scores.

Table IV.6. Regression Models Predicting the Healthcare Competency Assessment Form – Sexual and Gender Minority (HCAF-SGM) Score

Variable	B	seB	T	p	η_{p2}
Intercept	2.79	.33	8.42	< .001	.36
Charlotte Transgender Healthcare Group[a]	**.29**	**.10**	**3.02**	**.003**	**.07**
Male[b]	.19	.36	.52	.60	.002
Female[b]	.20	.32	.63	.53	.003
Heterosexual[c]	-.003	.31	-.01	1.00	<.001
Gay[c]	-.42	.24	-1.72	.09	.02
Lesbian[c]	-.38	.21	-1.85	.07	.03
Bisexual[c]	-.40	.20	-2.05	.04	.03
South[d]	.04	.09	.41	.68	.001
Number of Years of Experience	**.13**	**.05**	**2.51**	**.01**	**.05**
Training Hours	**.09**	**.04**	**2.09**	**.04**	**.03**
Number of SGM Patients	.02	.04	.47	.64	.002
Number of Known SGM Persons	.03	.05	.68	.50	.004
Institutional Climate	.08	.04	1.94	.06	.03
SDO Total Score	.05	.05	.96	.34	.01
RWA Total Score	**-.11**	**.05**	**-2.10**	**.04**	**.03**
SIT: Healthcare Professional	**.14**	**.05**	**2.69**	**.01**	**.05**
SIT: Patient	.05	.04	1.10	.27	.01
SIT: Heterosexual	-.08	.13	-.57	.57	.003
SIT: Sexual Orientation Minority	**.21**	**.09**	**2.21**	**.03**	**.04**
SIT: Cisgender	.04	.06	.74	.46	.004
SIT: Gender Identity Minority	.12	.08	1.44	.15	.02
SIT: Jewish	.08	.04	1.75	.08	.02

Note: Bold font = significant predictor; se = standard error; η_{p2} = partial eta squared; SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism; SIT = social identity; Number of Years Experience = Total number of years experience providing medical care; Training Hours = Total number of training hours received in sexual and gender minority health; Institutional Climate = how welcoming the environment is towards sexual and gender minorities; a = reference group: Other than CTCHG (American Association of Suicidology; Body Connect Health and Wellness; UNCC Bachelor of Social Work Program; UNCC Master of Social Work Program; UNCC Master of Nursing Program; Loyola Maryland University Doctor of Psychology Program; University of Cincinnati Counseling Program); b = reference group: TGNC (Transgender and gender non-conforming); c = reference group: Other; d = reference group: Non-South US Regions (Northeast, Midwest, and West)
$F(22, 150) = 41.92$, $p < .001$; Adj. $R_2 = .52$.

Discussion

Major Findings

The current study developed a valid and reliable SGM competency survey for health service providers. Contrary to expectations, the HCAF-SGM did not break down into three distinct subscales measuring knowledge, attitude, and skill; it is manifested as one total score. The scale displays good internal consistency and concurrent validity. The need for a measure that can be used across health services professions to evaluate the competency of health service providers was highlighted in earlier research done by Wilsey et al. (2020). Findings from that study showed that there was not a standardized assessment tool which could be used across health service providers. The SOCCS (Bidell, 2005) is an example of an existing SGM competency measure that is limited in scope, as it was designed to be used solely by mental health care counselors. Similarly, prior research (e.g., Boysen et al., 2008; Erich et al., 2008; Israel et al., 2004) did not use the standard definition of knowledge, attitude, and skill to assess competency. The use of a standard definition for competency is important in research because it makes it difficult for researchers to draw conclusions across studies otherwise.

Based on the finding that the HCAF-SGM provides one total score, it is plausible that health services providers think of the items that form competency as a task that they need to perform when working with or caring for clients (e.g., Lampley, Little, Beck-Little, & Xu, 2008; Valdez, 2008). As health services providers gain more experience (and therefore competence) in their discipline, they are able to see the big picture, rather than breaking tasks down into component parts (Benner, 1982). To illustrate this idea, researchers (Burger et al., 2010) studied how nurses (classified as advanced beginners, competent, and experts) respond to complex patient care. As nurses advanced in competence (defined by their classification from advanced

beginner to expert), they were better able to organize tasks, handle interruptions, anticipate patient needs, consolidate various tasks, and communicate effectively (Burger et al., 2010).

Furthermore, the HCAF-SGM may be a measure of scope of practice or skill rather than competency more broadly. Scope of practice describes the various services that a health professional has been deemed competent to perform under the terms of their license (American Nurses Association, n.d.). Health service providers may think of the various tasks that they perform while with a client not as separate knowledge, attitude, and/or skill, but as an undertaking that is more holistically within their scope of practice. Prior research related to scope of practice described five levels of proficiency based upon experience and education: novice, advanced beginner, competent, proficient, and expert (Benner, 1982). According to Benner (1982) novices have no experience with the situation they are asked to perform tasks in and therefore cannot use discretionary judgement. Individuals who have reached the competent level have generally been on the job for 2-3 years and are able to make decisions based on future goals and plans. Finally, the expert provider does not need to rely on rules or guidelines to connect their understanding of a situation to an action. This individual has years of experience backing up a practical solution to the problem (Benner, 1982). The HCAF-SGM instructed participants to rate the extent to which they had attained each clinical skill on a scale of Incapable to Advanced. Further supporting the notion that the HCAF-SGM is a measure of scope of practice is the fact that the bivariate correlation between the HCAF-SGM and the SOCCS skill subscale is significantly strong. While, the HCAF-SGM is significantly weakly to moderately positively correlated with the SOCCS knowledge subscale and significantly weakly positively correlated with the SGM health literacy quiz, the largest correlation is with the SOCCS skill subscale, suggesting support for the idea that the HCAF-SGM is a measure of scope of practice.

The second aim of the current study was to identify theories that may inform understanding of SGM competency. It was found that one piece of the Dual Process Model of Prejudice (Duckitt & Sibley, 2006; Duckitt & Sibley, 2010), RWA, is negatively associated with the HCAF-SGM. SDO had no association with the HCAF-SGM These findings are partially consistent with respect to prior research, which suggests SDO (Jones, Brewster, & Jones, 2014; Poteat & Anderson, 2012) and RWA (Cramer et al., 2013; Whitley & Lee, 2000) are among the strongest predictors of SGM prejudice. Prior research on the Dual Process Model of Prejudice, specifically the RWA component (Cramer et al., 2013), found that individuals who adhere to more conventional thinking tend to express more prejudicial views toward SGM individuals. Research (Von Collani, Grumm, & Streicher, 2010) has also found that RWA has a strong impact on homophobia. Individuals who are high in authoritarianism tend to display negative attitudes toward and reject people living with HIV/AIDS because they believe that the disease can be spread through casual contact.

One possible explanation for the findings related to the constructs of the Dual Process Model of Prejudice that this study tested may be related to the ideologies that are attributed to SDO and RWA. Individuals who adhere to high SDO (Sidanius & Pratto, 1999) ideology view the world as a competitive place, where struggle is necessary to maintain the hierarchal social order. Individuals who adhere to a high RWA (Altemeyer, 1998) ideology view the world as a threatening place, thereby rejecting groups that they perceive as threatening to their worldview. Recent evidence shows RWA is comprised of three interrelated attitudinal clusters: authoritarian submission (subjugation to authority), authoritarian aggression (aggression towards norm violators), and conventionalism (strict adherence to conventional norms and values) (Mavor, Louis, & Laythe, 2011; McKee & Feather, 2008; Rattazzi, Bobbio & Canova, 2007).

Considering present RWA findings, it is possible that RWA is a driving factor in the Dual

Process Model for items related to SGM prejudice because of the conventionalism cluster. SGM

individuals violate conventional societal norms and values, thereby activating the conventional

attitudes held by those high in RWA. The preference for a traditional lifestyle may be driving the

negative association between RWA and the HCAF-SGM that was found in this study. Due to the

high RWA ideology that an individual may ascribe to, SGM individuals may be seen as

threatening to the individual's worldview and system of values.

 Another theory that was explored as a possible correlate of SGM competency, was SIT

(Tajfel & Turner, 2010). The original hypothesis regarding SIT was that as more majority social

identities are displayed, SGM competence will decrease. However, only certain social identities

(i.e., healthcare professional, sexual minority, and gender minority) which are salient to the topic

of interest (i.e., SGM healthcare), were significantly positively associated with the HCAF-SGM.

The findings are consistent with prior research on social identity (Tyler & Blader, 2000).

Individuals make status judgments regarding their group membership. Individuals are more

likely to cooperate with their group if they are proud of their group membership and feel

respected by their group. To illustrate, research on female sexual minority athletes who

participated in a sporting event specifically for sexual minorities, found that those women were

more likely to report higher levels of pride in their identity (Krane, Barber, & McClung, 2000).

Similarly, medical educators have expressed concern that medical students do not seem to show

an appropriate amount of pride in their position (Frost & Regehr, 2013). Those status judgements

impact attitudes, values, and behaviors (Tyler & Blader, 2000). Research has also found that

stereotypes are likely to be shared within groups, as perceivers define an in-group versus an out-

group (Haslam, Oakes, Reynolds, & Turner, 1999). Another concept to discuss is identity

centrality, which is the extent to which a dimension of one's identity is important to their self-image or definition of oneself over a period of time (Bowman & Felix, 2017). Identity centrality may be a factor in the explanation of why the identity of SGM individual had bearing on the HCAF-SGM. The findings suggest that identity centrality had an effect on study results, possibly causing participants to connect to identities central to themselves rather than larger group identities. Research on identity centrality suggests that it can have a protective psychological affect for groups that traditionally face stigma (Settles, 2004). The concept of relational empathy, which emphasizes a productive approach to understanding and awareness of power differences (DeTurk, 2001) may explain why the identity of healthcare professional was linked to provider SGM competency in a positive association. Individuals who are aware of their identities and acknowledge both their privileges and their oppressions, are better able to build alliances with those who are traditionally oppressed (DeTurk, 2001). A study that measured the relational empathy of general providers toward patients found that relational empathy was important in building rapport with patients, despite the patients' circumstances (e.g., chronic illness, emotional distress, low socio-economic status) (Mercer, McConnachie, Maxwell, Heaney, & Watt, 2005).

The third aim of the current study was to determine which theory (Dual Process Model of Prejudice or SIT) is more important to understanding SGM competency, while controlling for covariates. Only one construct of the Dual Process Model of Prejudice, SDO, demonstrated a non-significant association with the HCAF-SGM. Another construct of the Dual Process Model of Prejudice, RWA, had a small significant negative association with the HCAF-SGM. The identities of "Healthcare Professional" and "Sexual Orientation Minority" demonstrated small significant positive associations with the HCAF-SGM. For both RWA and SIT, the effect sizes

were small, which indicates that both theories have relatively equivalent importance when it comes to SGM competency. These findings are elaborated on in the implications section.

Furthermore, the Charlotte Transgender Healthcare Group demonstrated a moderate significant positive association compared to the other data sources. The Charlotte Transgender Healthcare Group is a special interest group devoted to the advocacy and care of gender minority individuals (CTHCG, n.d.). Their higher SGM competency may be explained by heightened sympathy, empathy, motivation, interest, and/or knowledge in SGM healthcare. Prior research on educators working with SGM students provides examples. Researchers found that teachers who choose to include SGM content in their syllabi often do so because of personal sympathies rather than a mandate from the school board (Gorski, Davis, & Reiter, 2013). Additionally, educators who identify as SGM allies often develop even greater empathy for their SGM students, as they may experience having their sexuality questioned (Ratts et al., 2013). Researchers have also reported that individual's personal experiences with oppression tends to serve as a motivating factor to become an advocate for SGM causes, such as a school's Gay-Straight Alliance (Theriault, 2017). Finally, educators who report an interest in joining an SGM alliance group state that they have inadequate knowledge regarding the population they will be helping (Dragowski, McCabe, & Rubinson, 2015). Research suggests that sympathy, empathy, motivation, interest, and/or knowledge may be associated with higher SGM competency (Dragowski, et al., 2015; Gorski, et al., 2013; Ratts, et al., 2013; Theriault, 2017). Regarding the participants from the Charlotte Transgender Healthcare Group, it is possible that these individuals may have experienced increases in sympathy, empathy, motivation, interest, and/or knowledge after joining a special interest group devoted to gender minority advocacy and care. Research with general practitioners who have a special area of interest (e.g., respiratory care)

indicates that other health service providers and patients believe the special interest reduces the

practitioner's ability to practice general medicine (Moffat et al., 2006). It is possible that

providers from the Charlotte Transgender Healthcare Group displayed higher SGM competency

because they only work with SGM clients.

Implications

There are several practice implications to this study that can applied in the areas of

clinical supervision, training implementation and evaluation. Clinical supervision is an essential

piece of any health service providers training. It is essential that future health service providers

are trained by effective and competent supervisors so that they are as prepared as possible for the

situations they will face when working in the field (Barnett, Erikson Cornish, Goodyear, &

Lichtenberg, 2007). The HCAF-SGM can be used in clinical supervision to evaluate the progress

future health service providers are making. Ideally, health service provider trainees could be

given the measure at the beginning of their clinical training to assess their current abilities. The

clinical supervisor and the health service provider trainee could engage in discussion and

reflection on the score that the trainee received, acknowledging the limitations of a self-report

scale. At the mid-point of the clinical supervision period, the health service provider trainee

could complete the HCAF-SGM again to evaluate progress on their abilities, again engaging in

discussion and reflection with the health service provider trainees' clinical supervisor to identify

areas for improvement. Finally, at the end of the training period, the health service provider

trainee could take the HCAF-SGM a final time and engage in discussion and reflection regarding

how the health service provider trainees' abilities have grown over the course of their training

period. The health service provider trainee could also use this opportunity to identify areas for

further improvement.

Future trainings should focus on health service providers' scope of practice and the skills that providers need in the field, rather than provider attitudes. As suggested by the finding that the HCAF-SGM provides one total score instead of breaking into three subscales, health service providers may be better served by trainings that focus on health service providers' skills. For example, results from this study found that provider training hours with SGM-specific content were significantly positively associated with HCAF-SGM scores. In order to capitalize on the information that formal training hours are associated with HCAF-SGM scores, training content should cover basic (e.g., distinguishing the difference between sexual orientation and gender identity) and advanced (e.g., tailoring exams and treatments to SGM clients) skills. For example, health service providers need to understand how to approach clients who may not have a history of positive interactions with health service providers. SGM individuals may feel uncomfortable in the health service environment for a number of reasons, such as discrimination from the provider, lack of provider knowledge, or feeling ignored (Alpert, Cichoskikelly, & Fox, 2017). Potential training approaches could include asking an SGM individual to co-deliver the training, which would inform the training material with a first-person perspective, which benefits the larger SGM community (Transgender Training Institute, n.d.). Another training approach to consider is the use of standardized patients. Medical schools have adopted the use of standardized patients to teach students certain clinical skills (Myung et al., 2010). Other health service professions may want to consider implementing the use of standardized patients in training settings in order to teach certain clinical skills. Finally, application of critical thinking skills training can be emphasized in all trainings, as providers may find themselves in situations that require the ability to prioritize, communicate, negotiate, and make decisions quickly (Mishoe, 2003).

Study findings also suggest that trainings should provide education about the Dual Process Model, specifically the RWA component. Since RWA is negatively associated with the HCAF-SGM, it could be beneficial to conduct awareness-raising (Matthyse, 2017) about RWA in a health service provider SGM competency training. One method of awareness-raising around RWA could be to have participants complete an RWA measure, such as the Short Version RWA Scale (Rattazi et al. 2007). The limitations of self-report should be considered (and possibly discussed) such as, social desirability bias, recall mistakes, and cognitive demands caused by certain instruments (Sallis & Saelens, 2015). One way to potentially reduce prejudice predicted by RWA is through the contact hypothesis (Allport, 1954). Trainings could potentially utilize group work, where individuals are able to share personal experiences. Trainings provided by a member of the SGM community could also be beneficial. Participants who have personal connections with SGM individuals are more likely to view themselves as SGM allies (Fingerhut, 2011).

The current study has several implications for future research. Future research studies should explore utilizing the Short Version RWA Scale developed by Rattazzi et al., (2007) instead of Altemeyer's (2006) version used in this study. The short version of the scale has two subscales: (1) submission and authoritarian aggression and (2) conservatism. If it is the conventionalism cluster of RWA that is driving the negative association between RWA and the HCAF-SGM, then future studies that utilize the shortened version of the scale would see a higher negative association between the HCAF-SGM on the conservatism subscale than on the submission and aggression subscale.

One of the major aims of the study was to develop a measure that was widely applicable to health service professions and SGM persons. As identified by Wilsey et al. (2020), the

existing measures are limited for a number of reasons. The existing measures are mostly designed for use by mental health service professionals and the measures apply to a portion of the SGM population (i.e., lesbians, gays, and bisexuals) (SOCCS; Bidell, 2005; LGB-CSI; Dillon & Worthington, 2003). The HCAF-SGM can be used by researchers to study any health service provider and is inclusive of all SGM individuals. The development and validation of the HCAF-SGM addresses the prior gap in assessment of SGM competency by providing a single measure of SGM competency for all health service providers and is inclusive of all SGM individuals. Utilizing the HCAF-SGM in future research will help with generalizability of conclusions across research studies by utilizing a consistent definition of competency and including all health service providers and SGM individuals in a single measure.

Future studies of the HCAF-SGM may want to explore other theories of prejudice potentially related to SGM individuals. A more complete test of the Dual Process Model of Prejudice (Duckitt & Sibley, 2006; Duckitt & Sibley, 2010) would include the Five Factor Model of Personality (FFM; Costa & McCrae, 1992). Research indicates that certain facets of personality described by the FFM are more likely to be an indicator of SDO or RWA (Sibley & Duckitt, 2010). Another theory that could be examined is Integrated Threat Theory (ITT; Stephan & Stephan, 1996). Prejudice is a defensive reaction individuals are likely to display when they feel that their values, beliefs, and social groups are threatened. Of note, is the fact that the perception of threat is enough to produce a prejudicial reaction from individuals (Stephan & Stephan, 1996). Additionally, Role Congruity Theory (Eagly & Karau, 2002) could be examined. Role Congruity Theory states that prejudice arises when members of a social group enter (or attempt to enter) into social roles that are stereotypically mismatched to their group (Eagly & Karau, 2002).

Limitations and Future Directions

This study possesses several key limitations. The homogenous nature of the sample limits generalizability of conclusions. Nearly half (47.1%) of the participants were from the Charlotte Transgender Healthcare Group, which is a specialty interest group specifically devoted to the health of gender minority individuals. Compared to the other data sources, participants from the Charlotte Transgender Healthcare Group had a higher level of education (more masters, doctoral, and medical degrees). Further limiting generalizability of conclusions, the majority of the sample was female, White, and heterosexual. More than half of the sample was educated in the South and the majority of the sample had earned a master's degree or above. In the future, HCAF-SGM research should be repeated with a larger participant pool over sampling for heterogenous demographics in order to increase generalizability of results. Researchers may want to consider limiting special interest groups related to the topic of interest (i.e. SGM healthcare) from the participant pool to increase evaluation of effectiveness of the measure.

Limitations to the research study design also exist. The survey was administered exclusively online, which research shows can contribute to low participation rates (Crouch, Robinson, & Pitts, 2011). The online method is also a limitation because it involved convenience sampling, which is subject to selection bias and therefore is not representative of the entire population. The results may be skewed to reflect the answers of people who were interested in the topic being studied or who have access to online survey studies. Therefore, future research on this topic should expand beyond online convenience sampling in ways such as in-person data collection or pairing data collection with the provision of training.

Regarding sample size, some participants had to be removed from the study due to total missing data. It is possible that these individuals just clicked through the survey in order to enter

the incentive drawing. Due to the separation of databases to ensure participant anonymity, there

is no way to tell which responses belong to which incentive entry. Loss of participants decreases

statistical power, although the final sample is sufficient to answer study questions. Alternative

research methods above could allay the matter of clicking through a survey. Alternatively,

making participant compensation contingent on survey completion is an option for studies

moving forward.

The unique impact of an historical event must also be acknowledged. Data collection

occurred between January and March 2020. The COVID-19 pandemic was also starting to

emerge in the United States during that timeframe. Since this study surveyed health services

providers and students, it is possible that the pandemic had an effect on potential participants'

ability or willingness to participate. Additionally, participants may have joined the study but

their engagement could have been affected by the pandemic. For instance, some participants may

not have been as thorough in their responses to the survey, resulting in rushed responses from

some, while others may have stopped part-way through the questionnaire. There are a number of

ways in which the pandemic could have affected participation and response rates. Major

historical events should be considered when interpreting results and designing next steps in

HCAF-SGM development.

A possible limitation with regards to the findings of significant social identities pertaining

to the HCAF-SGM should be acknowledged. The identities of "Healthcare Professional" and

"Sexual Orientation Minority" demonstrated small significant associations with the HCAF-SGM,

while all other identities did not. It is possible that the other identities, such as "Patient" and

"Jewish" were not significantly associated with the HCAF-SGM due to the fact that the measure

is specifically designed to assess health service providers competency with SGM clients. Since

the measure is not designed to assess health service providers competency with topics such as religion, identities that are inconsequential to the measure would not be provoked by the measure. Balkin et al. (2009) studied the link between religious identity and aspects of sexism, homophobia, and multicultural competence. The study found that counselors who were more rigid and authoritarian in their religious beliefs tended to exhibit more sexist and homophobic attitudes, although the counselors did exhibit higher multicultural competence when conforming with others (Balkin et al., 2009).

A final limitation of the study is due to the terminology used within the survey. For those participants who are more familiar with the language regarding SGM care, some of the language within the survey could have caused confusion. For example, some statements included transgender and gender nonconforming individuals under the same umbrella as lesbian, gay, and bisexual individuals. Other statements addressed only transgender and gender-nonconforming individuals. If a provider does not possess accurate knowledge regarding such nuances, responses may be affected.

Chapter V

CONCLUSIONS

The overall purpose of this dissertation was to understand health service providers SGM competency by developing a measure (the HCAF-SGM), examining theories (Dual Process Model of Prejudice and SIT) that may be related to SGM competency, and identifying correlates of SGM competency. The purpose of this dissertation was accomplished through three studies. Study one of the dissertation was a systematic review. Study two of the dissertation was a psycho-educational training with military SAVAs serving SGM victims. Study three of the dissertation developed and assessed a measure of health service provider SGM competency. A summary of the results of each hypothesis is provided below:

Hypothesis for Aim 1(A): The Healthcare Competency Assessment Form – Sexual and Gender Minority Patients (HCAF-SGM) will yield three subscales: knowledge, attitudes, and skills.

Findings: The hypothesis was not supported, as results showed that all item should be treated as a sum total score.

Hypothesis for Aim 1 (B): Subscales will have acceptable internal consistency.

Findings: The hypothesis was partially supported, as the HCAF-SGM total score displayed good internal consistency with a Cronbach's alpha of .97.

Hypothesis for Aim 2 (A): As health service providers display higher levels of SDO they will display lower levels of SGM-competency.

Findings: The hypothesis was not supported, as SDO demonstrated a non-significant association with HCAF-SGM scores.

Hypothesis for Aim 2 (B): As health service providers display higher levels of RWA they will display lower levels of SGM-competency.

Findings: The hypothesis was supported, as there was a significant negative association between RWA and HCAF-SGM scores.

Hypothesis for Aim 2 (C): As health service providers display greater majority social identities (e.g., heterosexual, health service provider) they will display lower levels of SGM-competence.

Findings: The hypothesis was partially supported. Contrary to expectations there was a moderate positive correlation between the HCAF-SGM and the identity of "Healthcare Professional." There were moderate positive correlations between the identities of "Sexual Orientation Minority" and "Gender Identity Minority."

Hypothesis for Aim 3 (A): Controlling for covariates, SDO will explain significant and moderate sized variance in provider SGM-related competency.

Findings: The hypothesis was not supported, as SDO demonstrated a non-significant association with HCAF-SGM scores.

Hypothesis for Aim 3 (B): Controlling for covariates, RWA will explain significant and moderate sized variance in provider SGM-related competency.

Findings: The hypothesis was partially supported, as RWA demonstrated a small significant negative association with HCAF-SGM scores.

Hypothesis for Aim 3 (C): Controlling for covariates, social identity will explain significant and moderate sized variance in provider SGM-related competency.

Findings: The hypothesis was partially supported. The identities of "Healthcare Professional" and "Sexual Orientation Minority" demonstrated small significant positive associations with HCAF-SGM scores.

Summary and Research Implications

The review of the literature within this dissertation provided a synthesis of findings related to health service provider competency with SGM individuals, as well as components of the Dual Process Model of Prejudice (RWA and SDO) and Social Identity Theory. Study one found that BDSM-practitioners are not addressed in the health service literature. Despite calls for more BDSM-aware professionals, competency measures specific to health service providers working with BDSM-practitioners have not been developed. Additionally, study one found that correlates of SGM health services are understudied. The need for a study that tested theory-based explanations of health service competency was identified, as well as the necessity for a measure that is inclusive of BDSM-practitioners.

Study two was a training on the unique risks that SGM sexual assault victims face, particularly in military settings. The training was provided to military SAVAs. While the training provided positive gains in SGM health literacy for participants, it did not have an impact on participants sexual prejudice. Participants reported generally high intent to use the training in the future, with the highest intent coming from female participants and those who already had SGM knowledge prior to the training. Study two demonstrated the unique challenges when conducting research with specialty groups.

Study three was designed to develop and validate a measure of SGM competency for health service providers, as well as identifying correlates of health service provider competency. Results of the study suggest that health care providers view their competency regarding SGM individuals in a holistic manner, without differentiating between knowledge, attitude, and skill. Due to the high significant convergent positive association between the HCAF-SGM and the SOCCS skill subscale, it is possible that health care providers competency regarding SGM

individuals may be better thought of as scope of practice or a broad skillset. The study also showed that years of experience and formal training hours with SGM content are significantly associated with the HCAF-SGM score, which shows promise for health service educators teaching novice providers the necessary competencies to gain expertise. Study results showed promise for the validity of the measure. The measure was found to be associated with one construct of the Dual Process Model of Prejudice (RWA) and social identities that were salient to the topic being studied (i.e., healthcare professional and sexual and gender minority).

Future studies of the HCAF-SGM should utilize a larger, more inclusive sample in order to increase the generalizability of results. It may be beneficial to limit participation from special interest groups to the topic of interest (i.e. SGM healthcare) in order to more accurately assess the utility of the HCAF-SGM. Additionally, future studies of the HCAF-SGM should consider using a different research design, such as pairing the data collection with a training. Finally, future studies should be designed with the COVID-19 pandemic in mind. Results from this study may have been impacted by the major historical event, which could impact the next steps in future research.

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APPENDICES

Appendix A. Full Questionnaire Battery

SGM Health Professions Competency Survey

Demographics

Age (in years): _____

With which gender do you identify? (select one)
_____Male   _____Female   _____Male to Female
_____Female to Male   _____Non-Binary

With which sexual orientation do you identify? (select one)
_____Heterosexual _____Gay   _____Lesbian   _____Bisexual
_____Other (please specify): _____

What is your race? (check all that apply)
_____White _____Black/African American   _____Native American
_____Asian _____Native Alaskan   _____Hawaiian/Pacific Islander
_____Other (please specify): _____

What is your ethnicity? (select one)
_____Non-Hispanic/Latinx   _____Hispanic/Latinx

Using the following scale, what is your political identity?

Liberal			Moderate			Conservative
1	2	3	4	5	6	7

What is your highest degree earned? (please specify): _____

In what U.S. state did you receive this degree? (example: Virginia) _____

What is your clinical specialty (if any)? (please specify) _____

What discipline do you work in? (please specify): _____

How many years of experience do you have providing medical or healthcare services (in years)?
_____

How many **total hours** of formal training have you received regarding lesbian, gay, bisexual, transgender, queer, and other (LGBTQ+) healthcare?

How many known LGBTQ+ patients have you cared for during your career? _____

Have you ever personally known anyone who identified as LGBTQ+? (check all that apply)
_____No   _____Yes, an acquaintance   _____Yes, a friend
_____Yes, a family member   _____Yes, other (please specify): _____

Using the scale below indicate your response to the following statement:
The climate of my institution is welcoming to LGBTQ+ persons.

1 Strongly Disagree	2	3	4	5	6	7 Strongly Agree

SGM Health Literacy

Instructions: Please answer the following questions either True or False.

1. Sexual orientation can be considered a combination of desire, behavior, and identity that each person displays.	**True**	**False**
2. Transgender identity is considered a sexual orientation.	**True**	**False**
3. There are only three types of sexual orientation categories.	**True**	**False**
4. Gender identity is the extent to which one views themselves as male or female.	**True**	**False**
5. Transsexual and transvestite are interchangeable terms.	**True**	**False**
6. The "coming out" process is complete by adulthood for LGBTQ+ persons.	**True**	**False**
7. Identifying as a member of the LGBTQ+ community is considered a psychological disorder.	**True**	**False**
8. LGBTQ+ individuals are at elevated risk for suicide compared to heterosexual persons.	**True**	**False**
9. Support system members such as family and religious community members sometimes react negatively to LGBTQ+ persons' identity disclosure.	**True**	**False**
10. Internalized prejudice is one explanation for poor health outcomes among LGBTQ+ individuals.	**True**	**False**
11. LGBTQ+ individuals draw little meaning from advocacy or activist activities.	**True**	**False**
12. Hate crime victimization is considered one social cause of stress for LGBTQ+ individuals.	**True**	**False**
13. Sexual assault victimization rates are about equal for heterosexual and LGBTQ+ groups.	**True**	**False**
14. Individuals often identify as bisexual because they cannot make-up their mind about who they are attracted to.	**True**	**False**
15. Most LGBTQ+ persons possess good health and positive identities.	**True**	**False**

*Answers in red font indicate correct responses.

Healthcare Competency Assessment Form – Sexual and Gender Minority Patients
(HCAF-SGM)
Instructions: Use the scale provided to rate the extent to which you have attained competence in each clinical skill as it pertains to LGBTQ+ healthcare. (Select the correct value for each).

Incapable (Not been trained or unable to do this task)	Working Toward Competence (Partially trained or educated on this task)	Competent (Adequate training and skill in this task)	Advanced (Exceptional skill on the most current techniques for this task)
1	2	3	4

1. Manage your attitudes and reactions toward LGBTQ+ individuals.	1	2	3	4
2. Understand that LGBTQ+ families may face difficulties non-LGBTQ+ families do not.	1	2	3	4
3. Know that LGBTQ+ individuals may face discrimination in their everyday lives.	1	2	3	4
4. Understand how identifying as LGBTQ+ can affect their economic status.	1	2	3	4
5. Continue to seek out knowledge and training regarding best practices caring for LGBTQ+ individuals.	1	2	3	4
6. Be aware of misrepresentation/misunderstanding of research findings regarding LGBTQ+ individuals.	1	2	3	4
7. Distinguish between issues of gender identity and sexual orientation.	1	2	3	4
8. Recognize that LGBTQ+ families include individuals who are not legally or biologically related.	1	2	3	4
9. Consider the influence of spirituality and religion in the lives of LGBTQ+ persons.	1	2	3	4
10. Understand unique problems and risks that exist for LGBTQ+ youth.	1	2	3	4
11. Elicit relevant information regarding sexual orientation and gender identity (e.g., behavior, orientation, history).	1	2	3	4
12. Describe special health care needs of transgender and gender non-conforming (TGNC) persons.	1	2	3	4
13. Tailor physical exam and treatment recommendations to the unique needs of LGBTQ+ individuals.	1	2	3	4
14. Recognize the unique health risks and challenges often encountered by LGBTQ+ individuals.	1	2	3	4
15. Identify gaps in scientific knowledge and potentially harmful practices for LGBTQ+ individuals.	1	2	3	4

16. Develop strategies to minimize power imbalances between a health care provider and an LGBTQ+ patient.	1	2	3	4
17. Develop rapport with LGBTQ+ individuals and their families.	1	2	3	4
18. Respect the sensitivity of certain healthcare information pertaining to LGBTQ+ patient care.	1	2	3	4
19. Understand that implicit bias may adversely affect LGBTQ+ patient care.	1	2	3	4
20. Accept shared responsibility for eliminating LGBTQ+ health disparities.	1	2	3	4
21. Explain how to navigate the special legal and policy issues encountered by LGBTQ+ patients.	1	2	3	4
22. Partner with community resources that provide support for LGBTQ+ individuals.	1	2	3	4
23. Value the importance of interprofessional collaboration in providing culturally competent LGBTQ+ care.	1	2	3	4

Sexual Orientation Counselor Competency Scale (SOCCS)
Instructions: Using the scale provided, rate the truth of each item as it applies to you by selecting the appropriate number. It is important to answer all questions and provide the most candid response, often your first one. Please note that for this survey LGBTQ+ stands for Lesbian, Gay, Bisexual, Transgender, Queer, and other minority persons.

	Not at all true			Somewhat true			Totally true
1. I have experience working with LGBTQ+ patients.	1	2	3	4	5	6	7
2. The lifestyle of a LGBTQ+ patient is unnatural or immoral.	1	2	3	4	5	6	7
3. I feel that sexual orientation differences between provider and patient may serve as an initial barrier to effective treatment of LGBQ+ individuals.	1	2	3	4	5	6	7
4. I have experience working with LGBTQ+ couples.	1	2	3	4	5	6	7
5. Being born a heterosexual person in this society carries with it certain advantages.	1	2	3	4	5	6	7
6. I have experience working with bisexual (male or female) patients.	1	2	3	4	5	6	7
7. Personally, I think homosexuality is a mental disorder or a sin and can be treated through counseling or spiritual help.	1	2	3	4	5	6	7
8. I am aware that health service professionals frequently impose their values concerning sexuality on their clients.	1	2	3	4	5	6	7
9. At this point in my professional development, I feel competent, skilled, and qualified to work with LGBTQ+ patients.	1	2	3	4	5	6	7
10. Personally, I think identifying as transgender is a mental disorder or a sin and can be treated through counseling or spiritual help.	1	2	3	4	5	6	7
11. Heterosexist and prejudicial concepts have permeated the health professions.	1	2	3	4	5	6	7
12. I have been to in-services, conference sessions, or workshops which focused on LGBTQ+ issues in my profession.	1	2	3	4	5	6	7

13. I am aware some research indicates that LGBTQ+ patients are more likely to be diagnosed with mental illnesses than heterosexual patients.	1	2	3	4	5	6	7
14. I feel competent to assess the health needs of a person who is LGBTQ+ in a health services setting.	1	2	3	4	5	6	7
15. When it comes to homosexuality, I agree with the statement: "You should love the sinner but hate or condemn the sin."	1	2	3	4	5	6	7
16. LGBTQ+ patients receive "less preferred" forms of health services than heterosexual patients.	1	2	3	4	5	6	7
17. I have received adequate training and supervision to work with LGBTQ+ patients.	1	2	3	4	5	6	7
18. When it comes to identifying as transgender, I agree with the statement: "You should love the sinner but hate or condemn the sin."	1	2	3	4	5	6	7
19. I am aware of institutional barriers that may inhibit LGBTQ+ patients from using health services.	1	2	3	4	5	6	7
20. I have done role-play as either the patient or healthcare professional involving a LGBTQ+ issue.	1	2	3	4	5	6	7
21. There are different health issues impacting sexual orientation minorities versus gender identity minorities.	1	2	3	4	5	6	7
22. I believe that LGBTQ+ couples don't need special rights (such as the right to marry) because that would undermine normal or traditional family values.	1	2	3	4	5	6	7
23. It's obvious that a same sex relationship between two men or two women is not as strong or committed as one between a man and a woman.	1	2	3	4	5	6	7
24. Currently, I do not have the skills or training to do a case presentation or consultation if my patient were LGBTQ+.	1	2	3	4	5	6	7

25. It would be best if my patients viewed a heterosexual lifestyle as ideal.	1	2	3	4	5	6	7
26. I believe that being highly discreet about their sexual orientation is a trait that LGBTQ+ patients should work towards.	1	2	3	4	5	6	7
27. I think my clients should accept some degree of conformity to traditional sexual values.	1	2	3	4	5	6	7
28. I believe that LGBTQ+ patients would benefit most from treatment with a health services professional who endorses conventional values and norms.	1	2	3	4	5	6	7
29. I keep my LGBTQ+ patient-related skills up-to-date through consultation, supervision, and continuing education.	1	2	3	4	5	6	7
30. I believe that being highly discreet about their gender identity is a trait that transgender patients should work towards.	1	2	3	4	5	6	7
31. I believe that all LGBTQ+ patients must be discreet about their sexual orientation/gender identity around children.	1	2	3	4	5	6	7

Social Identity Scale

Instructions:
Below are a number of identities that may or may not apply to you. Using the following scale (1=Disagree strongly to 7=Agree strongly) rate the extent to which you identify as:

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I identify as a(n):

1.____Healthcare professional
2.____Medical patient
3.____Straight or heterosexual
4.____Member of the LGBQ+ community (e.g., gay or lesbian)
5.____Cisgender – gender identity matches the gender assigned at birth
6.____Transgender and/or gender non-conforming
7. ____American
8. ____Immigrant
9. ____Christian
10. ___Jewish
11. ___Muslim
12. ___Atheist/Agnostic

Social Dominance Orientation (SDO) Scale

Instructions:
Below are a series of statements with which you may either agree or disagree. For each statement, please indicate the degree of your agreement/disagreement by selecting the number from the corresponding scale (1=Strongly disagree to 7=Strongly agree). Remember that your first responses are usually the most accurate.

1 Strongly Disagree	2	3	4	5	6	7 Strongly Agree

1. _____Some groups of people are just more worthy than others.
2. _____No one group should dominate society.
3. _____To get ahead in life, it is sometimes necessary to step on other groups.
4. _____It's okay if some groups have more of a chance in life than others.
5. _____All groups should be given an equal chance in life.
6. _____Inferior groups should stay in their place.
7. _____Sometimes other groups must be kept in their place.
8. _____It would be good if all groups could be equal.
9. _____We should strive to make incomes more equal.
10. _____If certain groups of people stayed in their place, we would have fewer problems.
11. _____We should do what we can to equalize conditions for different groups.
12. _____In getting what your group wants, it is sometimes necessary to use force against other groups.
13. _____We would have fewer problems if we treated different groups more equally.
14. _____Group equality should be our ideal.
15. _____It's probably a good thing that certain groups are at the top and other groups are at the bottom.
16. _____We should increase social equality.

Short-Version Right-Wing Authoritarianism Scale (RWA) Scale

This survey is part of an investigation of general public opinion concerning a variety of social issues. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement by writing the number from the corresponding scale (-4=Very strongly disagree to +4=Very strongly agree), next to each statement.

-4	-3	-2	-1	0	+1	+2	+3	+4
Very strongly disagree	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree	Very strongly agree

If you feel exactly and precisely *neutral* about the statement, write "0".
You may find that you sometimes have different reactions to different parts of a statement. For example, you might very strongly disagree (-4) with one idea in a statement, but slightly agree (+1) with another idea in the same statement. When this happens, please combine your reactions, and indicate how you feel "on balance" (-3 in this case).

1. _____Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us.
2. _____Gays and lesbians are just as healthy and moral as anybody else.
3. _____It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
4. _____Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
5. _____The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the trouble-makers spreading bad ideas.
6. _____There is absolutely nothing wrong with nudist camps.
7. _____Our country *needs* free thinkers who will have the courage to defy traditional ways, even if this upsets many people.
8. _____Our country will be destroyed someday if we do not smash the perversions eating away at the moral fiber and traditional beliefs.
9. _____Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else.
10. _____The "old-fashioned ways" and "old-fashioned values" still show the best way to live.
11. _____You have to admire those who challenged the law and the majority's view by protesting for women's abortion rights, for animal rights, or to abolish school prayer.
12. _____What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path.
13. _____Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way things are supposed to be done."

14. _____God's law about abortion, pornography, and marriage must be strictly followed before it is too late, and those who break them must be strongly punished.
15. _____There are many radical, immoral people in our country today, who are trying to ruin it for their own godless purposes, whom the authorities should put out of action.
16. _____A "woman's place" should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly in the past.
17. _____Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the "rotten apples" who are ruining everything.
18. _____There is no "ONE right way" to live life: everybody has to create their *own* way.
19. _____Homosexuals and feminists should be praised for being brave enough to defy "traditional family values."
20. _____This country would work a lot better if certain groups of troublemakers would just shut up and accept their group's traditional place in society.

Appendix B. Letter of Support from UNCC BSW Program

August 25, 2019

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I am writing to acknowledge my support of the IRB submission entitled *Implementation and Evaluation of an SGM Competency-Based Survey for Healthcare Providers*entitled by Dr. Robert J. Cramer and Corrine Wilsey. I agree to submit an invitation to participate in the survey to UNC Charlotte undergraduate social work students via email, once approval is received.

I support the study and methodology as outlined in the IRB submission. Upon project completion, the UNC Charlotte School of Social Work will receive a report of findings and the option for undergraduate social work students to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Best regards,

Sonyia Richardson, MSW, LCSW
Clinical Associate Professor
Director, Bachelor of Social Work Program
srichardson@uncc.edu

Appendix C. Letter of Support from UNCC MSW Program

UNC CHARLOTTE
College of Health and Human Services
School of Social Work

August 1, 2019

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I would like to support Dr. Robert J. Cramer and Corrine Wilsey's IRB submission titled, *Implementation and Evaluation of an SGM Competency-Based Survey for Healthcare Providers.* Pending IRB approval, an invitation to participate in the survey will be sent to graduate social work students via email.

I support the study and methodology as outlined in the IRB submission. Upon project completion, the UNC Charlotte School of Social Work will receive a report of findings and the option for graduate social work students to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Best regards,

Diana Rowan, Ph.D., MSW, LCSW
Professor
Director, Master of Social Work Program
Director, Academy of Veteran and Military Health
drowan@uncc.edu

Appendix D. Letter of Support from UNCC MSN Program

UNC CHARLOTTE
College of Health and Human Services
School of Nursing
9201 University City Blvd, Charlotte, NC 28223-0001
T704/687.7952 www.nursing.uncc.edu

October 10, 2019

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I would like to support Dr. Robert J. Cramer and Corrine Wilsey's IRB submission titled, *Implementation and Evaluation of an SGM Competency-Based Survey for Healthcare Providers.* Pending IRB approval, an email invitation to participate in the survey will be sent to all School of Nursing (SON) faculty and students meeting inclusion criteria.

I support the study and methodology as outlined in the IRB submission. Upon project completion, the UNC Charlotte School of Nursing will receive a report of findings and the option for nursing students and nursing school faculty to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Sincerely,

Dr. Dena Evans
Associate Professor
Director, School of Nursing

The Baccalaureate degree program in nursing/Master's degree program in nursing and the Doctor of Nursing Practice at
University of North Carolina at Charlotte are accredited by the Commission on Collegiate Nursing Education (CCNE) at
www.ccneaccreditation.org

The UNIVERSITY *of* NORTH CAROLINA *at* CHARLOTTE

An Equal Opportunity/Affirmative Action Employer

Appendix E. Letter of Support from Loyola University Maryland Psychology Program

February 10, 2020

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I would like to support Dr. Robert J. Cramer and Corrine Wilsey's IRB submission titled, *A Survey Examining Sexual and Gender Minority Competency of Health Care Providers.* Pending IRB addendum approval, an invitation to participate in the survey will be sent to graduate psychology students via email.

I support the study and methodology as outlined in the IRB submission. Upon project completion, Loyola Maryland University's Doctor of Psychology program will receive a report of findings and the option for graduate psychology students to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Best regards,

Frank D. Golom, Ph.D.

Frank D. Golom, Ph.D.
Department Chair
Associate Professor of Applied Psychology
Department of Psychology
Loyola University Maryland

Appendix F. Letter of Support from University of Cincinnati Counseling Program

University of **CINCINNATI** | CECH

February 10, 2020

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I would like to support Dr. Robert J. Cramer and Corrine Wilsey's IRB submission titled, *A Survey Examining Sexual and Gender Minority Competencies of Health Care Providers.* Pending IRB addendum approval, an invitation to participate in the survey will be sent to graduate counseling students via email.

I support the study and methodology as outlined in the IRB submission. Upon project completion, University of Cincinnati's counseling program will receive a report of findings and the option for graduate counseling students to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Best regards,

Amanda La Guardia, Ph.D.

Appendix G. Letter of Support from Charlotte Transgender Healthcare Group

Holly Bielstein Savoy, Ph.D.
Licensed Psychologist

5970 Fairview Road, Suite 412
Charlotte, NC, 28210
Phone: 704.362.4041
Fax: 704.362.1170

July 15, 2019

Re: IRB Letter of Support
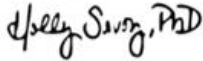
Dear Institutional Review Board Chair and Members,

On behalf of the Charlotte Transgender Healthcare Group, for which I am a Founding
Member, I would like to support Dr. Robert J. Cramer & Corrine Wilsey's IRB submission
entitled, *Implementation and Evaluation of an SGM Competency-Based Survey for Healthcare
Providers.*

Pending IRB approval, an announcement to participate in the survey will be posted to
several shared professional listservs and social media groups for healthcare providers.
Specifically, the invitation to participate will be posted to the following groups:

- Charlotte Transgender Healthcare Group – listserv including 68 Charlotte, NC area
  medical, mental health, and surgical transgender affirming healthcare providers.
- Mecklenburg Psychological Association (MPA) – listserv including 170 Charlotte
  area psychologists
- USPATH (US Division of World Professional Association of Transgender Health
  (WPATH)) – listserv for WPATH members who are medical, mental health, and
  surgical transgender affirming healthcare providers across the United States
- LGBQIA and Trans Affirming Therapists – Facebook group of approximately 2,816
  members for "therapists or aspiring therapists working with, or wanting to work
  with the LGBQIA and Trans community"

I support the study and methodology as outlined in the IRB submission. Upon project
completion, The Charlotte Transgender Healthcare Group will receive a report of findings
and the option for members to participate in a supplemental training program for
healthcare professionals (timeline and format, to be determined).

Sincerely,

Holly Savoy, PhD

Holly Bielstein Savoy, PhD
Licensed Psychologist

Appendix H. Letter of Support from Body Connect Health & Wellness

body connect
HEALTH & WELLNESS

2440 M St. NW, Suite 326
Washington, DC 20037
P: (202) 733-1929
F: (202) 808-2046

Date: August 5, 2019

Re: IRB Letter of Support

Dear Institutional Review Board Chair and Members,

I would like to support Dr. Robert J. Cramer and Corrine Wilsey's IRB submission titled, Implementation and Evaluation of an SGM Competency-Based Survey for Healthcare Providers. Pending IRB approval, an announcement to participate in the survey will be posted to several shared professional listservs and social media groups for healthcare providers. Specifically, the invitation to participate will be posted to the following groups:

- DC, Virginia and Maryland Doulas, Birth Workers and Childbirth Educators
- DMV Pelvic Floor Physical Therapy
- Queer Pelvic Health Professionals
- Trans, Non-binary, and Intersex Pelvic Health Discussion Group
- Global Pelvic Physio
- Nancy's Nook Endometriosis Education

I support the study and methodology as outlined in the IRB submission. Upon project completion, Body Connect Health and Wellness will receive a report of findings and the option for practitioners to participate in a supplemental training program for healthcare professionals (timeline and format to be determined).

Thank you for your time; if you have any thoughts, concerns, or questions, please do not hesitate to contact our office.

Sincerely,

Dr. Hannah Schoonover, PT, DPT
#PT871890

Appendix I. Email Solicitation to UNCC Students for Survey Participation

Dear UNCC Social Work Students,

We are sharing with you an opportunity to participate in the Health Service Provider Perspectives on Sexual and Gender Minority (SGM) Patient Care study. The purpose of the study is to learn more about social work students' perspectives treating sexual and gender minority (SGM) patients. If you decide to participate in this study, you will be asked to complete a brief questionnaire. After completion of the questionnaire, you will be debriefed.

The survey will take you approximately 15-20 minutes to complete. You will have the opportunity to enter a gift card raffle for a $25 e-gift card at the end of the survey.

Here is the link for the survey:

Appendix J. Email Solicitation to UNCC Students for Survey Participation

Dear UNCC Nursing Students,

We are sharing with you an opportunity to participate in the Health Service Provider Perspectives on Sexual and Gender Minority (SGM) Patient Care study. The purpose of the study is to learn more about nursing students' perspectives treating sexual and gender minority (SGM) patients. If you decide to participate in this study, you will be asked to complete a brief questionnaire. After completion of the questionnaire, you will be debriefed.

The survey will take you approximately 15-20 minutes to complete. You will have the opportunity to enter a gift card raffle for a $25 e-gift card at the end of the survey.

Here is the link for the survey:

Appendix K. Email Solicitation for Loyola Students for Survey Participation

Dear Loyola Maryland University Psychology Students,

We are sharing with you an opportunity to participate in *A Survey Examining Sexual and Gender Minority Competency of Health Care Providers* study. The purpose of the study is to learn more about health care providers' perspectives treating sexual and gender minority (SGM) patients. If you decide to participate in this study, you will be asked to complete a brief questionnaire. After completion of the questionnaire, you will be debriefed.

The survey will take you approximately 15-20 minutes to complete. You will have the opportunity to earn a $25 Amazon e-gift card at the end of the survey.

Here is the link for the survey:

Appendix L. Email Solicitation for University of Cincinnati Students for Survey Participation

Dear University of Cincinnati Counseling Students,

We are sharing with you an opportunity to participate in *A Survey Examining Sexual and Gender Minority Competency of Health Care Providers* study. The purpose of the study is to learn more about health care providers' perspectives treating sexual and gender minority (SGM) patients. If you decide to participate in this study, you will be asked to complete a brief questionnaire. After completion of the questionnaire, you will be debriefed.

The survey will take you approximately 15-20 minutes to complete. You will have the opportunity to earn a $25 Amazon e-gift card at the end of the survey.

Here is the link for the survey:

Appendix M. Email Solicitation for Practicing Health Care Providers for Survey Participation

Dear Health Care Provider,

We are sharing with you an opportunity to participate in the Health Service Provider Perspectives on Sexual and Gender Minority (SGM) Patient Care study. The purpose of the study is to learn more about health care providers' perspectives treating sexual and gender minority (SGM) patients. If you decide to participate in this study, you will be asked to complete a brief questionnaire. After completion of the questionnaire, you will be debriefed.

The survey will take you approximately 15-20 minutes to complete. You will have the opportunity to enter a gift card raffle for a $25 e-gift card at the end of the survey.

Here is the link for the survey:

Appendix N. Consent Form

Consent to be Part of a Research Study

Title of the Project: A Survey Examining Sexual and Gender Minority Competency of Health Care Providers
Principal Investigator: Corrine N. Wilsey, MA, MEd, University of North Carolina at Charlotte
Co-investigator: Robert J. Cramer, Ph.D., University of North Carolina at Charlotte
Study Sponsor: NA

You are invited to participate in a research study. Participation in this research study is voluntary. The information provided is to help you decide whether or not to participate. If you have any questions, please ask.

Important Information You Need to Know

- The purpose of this study is to gain insight into health care provider student' and professional' perspectives in treating sexual and gender minority (SGM) patients.
- You will be asked to complete an online survey one time.
- If you choose to participate it will require 15 to 20 minutes for survey administration.
- Risks or discomforts from this research include possible emotional distress due to the sensitive nature of some survey question topics.
- There are no direct benefits to you by participating in this study. However, survey completion carries the opportunity to enter into a drawing for 1 of 10 $25.00 Amazon e-gift card.

Please read this form and ask any questions you may have before you decide whether to participate in this research study.

Why are we doing this study?
The purpose of this study is to gain insight into health care provider student' and professional' perspectives in treating sexual and gender minority (SGM) patients. Integration of information learned in this study will be used to develop a standardized measure of competency and better SGM-competency-based training for students and health care professionals.

Why are you being asked to be in this research study.
You are being asked to be in this study because you are over 18 years of age, live in the United States, and are enrolled in the BSW/MSW programs at UNCC; MSN program at UNCC; or responded to the study advertisement indicating that you are a health care professional.

What will happen if I take part in this study?

If you choose to participate in this study you will be asked to complete an online-administered survey via a link to UNCC Qualtrics. Qualtrics is an online survey creation tool. The survey will take approximately 15-20 minutes to complete. Survey questions will ask you to complete demographic information (e.g., age, gender) and knowledge, attitudes, and perceived skills about health care professions practices. No identifying information is requested as part of the survey. Your email address will be requested in a separate entry and used only for incentive distribution.

Your total time commitment is 15-20 minutes.

We will not collect any additional information.

What benefits might I experience?
You will not directly benefit from being in this study. You may gain insight into your own beliefs, knowledge, and skill concerning SGM patient care. Group data from this study will help establish new approaches to SGM-competency-based training for health service providers, thereby contributing to the improvement of care for SGM patients.

What risks might I experience?
You may experience mild emotional or psychological discomfort. To minimize this risk, we have had the survey reviewed by the Human Subjects Review Board. If these questions make you feel uncomfortable, you may withdraw from participation at any time. Should you need assistance with your mental health, you can locate psychological services in your area via the American Psychological Association's Psychologist Locator (http://locator.apa.org).

How will my information be protected?
We plan to publish the results of this study. To protect your privacy we will not include any information that could identify you. Data are confidential and responses are not linked to identifying information.

A limit to confidentiality is provision of your email address for administration of e-gift cards. Email addresses provided are maintained in a separate database from survey responses, thereby ensuring survey responses remain private. Email addresses will also be deleted upon study completion.

Other people may need to see the information we collect about you. Including people who work for UNC Charlotte and other agencies as required by law or allowed by federal regulations.

How will my information be used after the study is over?
The data/information collected will not be used or distributed for future research studies even if identifiers are removed.

Will I receive an incentive for taking part in this study?
There is the possibility for you to receive a $25.00 Amazon e-gift card for survey completion.

What other choices do I have if I don't take part in this study?
There is no alternative other than not taking the survey.

What are my rights if I take part in this study?
It is up to you to decide to be in this research study. Participating in this study is voluntary. Even if you decide to be part of the study now, you may change your mind and stop at any time. You do not have to answer any questions you do not want to answer.

If you choose to stop the survey, data may still be used in de-identified group-level analysis if you provided a sufficient number of responses to do so.

Who can answer my questions about this study and my rights as a participant?
For questions about this research, you may contact Corrine N. Wilsey, Lecturer of Public Health Sciences at UNC Charlotte, cwilsey@uncc.edu, (704) 687-1798.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the Office of Research Compliance at 704-687-1871 or uncc-irb@uncc.edu.

Consent to Participate
By clicking "yes" on this page, you are agreeing to be in this study. Make sure you understand what the study is about before you press "yes". You can save a screen shot of this document for your records or request it from study investigators. If you have any questions about the study after you click "yes" , you can contact the study team using the information provided above.

I understand what the study is about and my questions so far have been answered. By clicking "yes", I agree to take part in this study.

Enter Name: _____   Date: _____

Click "YES" to participate.

Click "NO" or close the web page to choose not to participate.

Appendix O. Debriefing Form

<u>Debriefing Form</u>

Dear Participant,

You have just participated in *A Survey Examining Sexual and Gender Minority Competency of Health Care Providers,* examining the knowledge, attitudes, and skills of health service students and providers, as well as the impact of attitude-based correlates such as social identity on perceived healthcare skills. Your valuable contribution is appreciated and will go a long way in aiding the understanding and development of effective education of students in treating SGM patients.
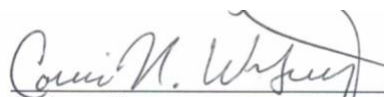
Please fill in your email address here if you wish to enter into the drawing for a chance to win 1 of 10 $25.00 Amazon e-gift card:

As a back-up, we recommend you save a screen shot or other electronic version of this debriefing form. Should you have other questions, please contact one of the primary investigators below.

Should you need assistance with your mental health, you can locate psychological services in your area via the American Psychological Association's Psychologist Locator (http://locator.apa.org)

Thank you for your time and assistance.

Sincerely,

Corrine N. Wilsey, MA, MEd
Lecturer, Public Health Sciences
University of North Carolina at Charlotte
(704) 687-1798
cwilsey@uncc.edu

Appendix P. Copyright Permission from *Health Promotion Practice*

M Gmail

Corrine Wilsey <corrinewilsey@gmail.com>

Re: Letter of Permission re: HPP-20-0012.R1

2 messages

Jeanine Robitaille <jrobitaille@sophe.org>   Mon, Jun 29, 2020 at 5:29 PM
To: CORRINE WILSEY <cwils021@odu.edu>

Hi Corrine,

Thank you for your contribution to HPP!

You are free to use the final accepted Word version of your manuscript, it's just the actual HPP pages that are restricted.

For all the details, please see:
https://us.sagepub.com/en-us/nam/journalsPermissions.nav

It looks like that page is currently down, so let me know if it remains inaccessible so I can update the publisher.

Best,
Jeanine

Jeanine Robitaille, MS, CHES
Editorial Manager
Society for Public Health Education
10 G Street NE, Suite 605
Washington, DC 20002
Mon/Wed/Thurs
https://journals.sagepub.com/home/hpp
https://journals.sagepub.com/home/php

Appendix Q. Copyright Permission from *Military Behavioral Health*

Implementation and Evaluation of a Psycho-Educational Training on Sexual and Gender Minority Needs for Military Sexual Assault Victim Advocates

Author: Robert J. Cramer, , , et al

Publication: Military Behavioral Health

Publisher: Taylor & Francis

Date: Jan 2, 2019

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VITA
CORRINE N. WILSEY

Health Services Research
Old Dominion University
College of Health Sciences
2114 Health Sciences Building
Norfolk, VA 23259

Doctor of Philosophy, Old Dominion University, Norfolk, VA   August 2020
Health Services Research
Cognate: Sexual and Gender Minority Health
Dissertation: A Three Article Study Examining Sexual and Gender Minority Competency of Healthcare
Providers

Master of Education, Widener University, Chester, PA   August 2017
Human Sexuality Studies
Track: Sexuality Education

Master of Arts, Stockton University, Galloway, NJ   December 2012
Criminal Justice
Concentration: Forensic Psychology

Bachelor of Science/Bachelor of Arts, Stockton University, Galloway, NJ   May 2010
Psychology/Criminal Justice
Project of Distinction: Gender Differences in Illness, Stress, and Coping Among Undergraduate College
Students

PUBLICATIONS:

Wilsey, C. N., Cramer, R. J., Macchia, J. M., & Golom, F. D. (2020). Describing the nature and correlates of health service providers' competency working with sexual and gender minority (SGM) patients: A systematic review. *Health Promotion Practice.*

Cramer, R. J., Langhinrichsen-Rohling, J., Kaniuka, A. R., **Wilsey, C. N.**, Mennicke, A., Wright, S., Montanaro, E., Bowling, J., & Heron, K. E. (2020). Preferences in Information Processing, marginalized identity, and non-monogamy: Understanding factors in Suicide-Related Behavior among Members of the Alternative Sexuality Community. *International Journal of Environmental Research and Public Health.*

Rasmussen, S., Cramer, R. J., McFadden, C., Haile, C. R., Sime, V. L., & **Wilsey, C. N.** (2019). Sexual orientation and the Integrated Motivational-Volitional Model of suicidal behavior: Results from a cross-sectional study of young adults in the United Kingdom. *Archives of Suicide Research.*

Cramer, R. J., Johnson, K. L., Nobles, M. R., Holley, S. R., Desmarais, S. L., Gemberling, T. M., Wright, S., **Wilsey, C. N.**, & Van Dorn, R. (2018). Lifetime suicide-related behavior, violent victimization, and behavioral health outcomes: Results from a vulnerable population needs assessment. *Journal of Interpersonal Violence.*

Cramer, R. J., **Wilsey, C.,** Hinkle, I., Kukla, A., & Macchia, J. (2018). Implementation and evaluation of a psycho-educational training on sexual and gender minority needs for military sexual assault victim advocates. *Military Behavioral Health, 7*(1), 14-21.

Wilsey, C. & Lyke, J. A., (2015). Gender differences in perceived illness, stress, and coping in undergraduates. *Psychology Research Methods, 5*(3), 191-198.