

A MIXED-METHODS APPROACH TO DEVELOPING A  
MEASURE OF ATTITUDES TOWARD THE LGBTQIA+ COMMUNITY

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## **ABSTRACT**

The project takes a mixed-methods approach in beginning the development of a measure of attitudes toward LGBTQIA+ individuals. The first step was a quantitative analysis to explore the factor structure of the LGB-KASH. The analyses confirmed the need for an updated measure as the original five-factor model of the LGB-KASH did not hold up in confirmatory or exploratory factor analyses. The second part of the study consisted of focus groups in order to gather information regarding reactions to the LGB-KASH measure as well as generate ideas regarding necessary updates and potential items for a new measure. Finally, retained and newly developed items were administered to participants in order to conduct exploratory factor analysis to aid in the development of a new measure of attitudes toward the LGBTQIA+ community. A nine-factor solution containing 53 items was achieved. Eight of the nine factors displayed significant and meaningful associations with demographic characteristics of the sample. Future studies will include confirmatory factor analyses to validate this measure and its factor structure.

## **DEDICATION**

For members of this, my community: a reminder that though you are challenged and oppressed, you are limitless. As we work through the vertigo of victorious momentum, celebrate, both tired and tirelessly. In the moments of pain, my hope is that you can feel it, find a way to protect and take care of yourself, and then remember that it has not always been like this, and it will not always be like this.

For those who have made such hurt a reality, I am grateful for the motivation and meaning you have poured into my life. In all reality, this fight, all the way down to the development of this measure, is fueled by a desire to negate and cease your damage.

## LIST OF ABBREVIATIONS AND SYMBOLS

$M$	Mean: the sum of a set of measurements divided by the number of measurements in the set
$N$	Total number in a sample
$P$	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
$r$	Pearson product-moment correlation
$df$	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
$F$	Fisher's F ratio: a ratio of two variances
$SD$	Standard deviation
$\chi^2$	Chi-square
$\hat{h}$	Communality estimate
RMSEA	Root Mean Square Error of Approximation
CFI	Comparative Fit Index
TLI	Tucker-Lewis Index
KMO	Kaiser-Meyer-Olkin test of sampling adequacy
<	Less than
>	Greater than
=	Equal to

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Of all the words in this document, these feel the most challenging to express.

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## **INTRODUCTION**

In recent decades, numerous social, political, economic, and other gains have been achieved within and for the LGBTQIA+ (lesbian, gay, bisexual, trans, queer/questioning, intersex, asexual, and all other non-heteronormative and non-gender normative identities) community. These progressions have been both motivated and reinforced by increased awareness of and improved attitudes toward these individuals. Yet, there is still plenty of work to be done to better the treatment of LGBTQIA+ identified individuals. A greater understanding of the attitudes held toward this community will assist in these endeavors, which is why a current, comprehensive measure of these attitudes would be useful to a wide variety of researchers and those appointed to consult on and develop policy. Subsequently, beginning to develop such an instrument is the primary aim of this study.

### **Terms**

Before continuing to discuss the scope of this project and its subsequent studies, it is useful to acknowledge the ever changing and evolving language of the LGBTQIA+ community. LGBTQIA+ is a common acronym for the collective of individuals who identify as lesbian, gay, bisexual, trans, queer/questioning, intersex, asexual, and others who do not claim normative gender and heterosexual identities. However, even the LGBTQIA+ acronym may seemingly grant priority to certain identities within this broad population. For the purpose of this study, the term “queer” will be used as an umbrella term to refer to individuals who may in any way identify as non-heterosexual or non-cisgender concerning their sexuality or gender. It would be

irresponsible to ignore that “queer” has long held a derogatory meaning and could potentially trigger unpleasant feelings. However, the term “queer” has been reclaimed as a term of empowerment in recent decades, especially since the development of academic queer theory, which uses the term to challenge the categorization of gender and sexuality and expands the discussion beyond the commonly referenced “gay” and “lesbian” identities to be inclusive of all sexual and gender identities which do not belong to the majority categories of heterosexual and cisgender. Terms involving the “homo-“ prefix (e.g., homosexual, homophobia, homonegativity) will be avoided unless it is used to mirror language used in previous research, as it is indicative of the restrictive notion that the individuals referenced have a romantic or sexual attraction toward or participate in sexual activity with someone of the same sex or gender. Also, this prefix maintains a negative connotation from previous decades in which homosexuality was still classified as a mental disorder in the *Diagnostic and Statistical Manual of Mental Health Disorders* (DSM) until 1973, and it should be noted that ego-dystonic homosexuality remained in DSM-III until the DSM-III-R was published in 1987 (American Psychiatric Association, 1952, 1968, 1973, 1980, 1987).

While “queer” is often used as a broad and encompassing term when discussing both sexual orientation and gender identity, the terms and language used within and about the LGBTQIA+ community is immense and there are many other more specific terms that could be discussed. Due to the nature of this study attempting to create a measure that is more inclusive of various gender identities, terms that warrant further clarification are trans/transgender, TGNC, and cisgender. Trans or transgender is another umbrella term that refers to people whose self-identification, anatomy, appearance, manner, expression, behavior, and/or other perceptions differ from conventional or cultural expectations of congruent gender expression and designated

birth sex. It should be noted that not everyone whose appearance or behavior is gender-atypical self-identifies as transgender. “Trans” is also an umbrella term, which could refer to transgender, transsexual, transman, transwoman, etc. but is sometimes considered inclusive of all non-cisgender identities. “TGNC” is an additional acronym (trans or gender non-conforming), which includes the previously described trans term but additionally recognizes that individuals who do not identify as cisgender may also not identify as trans. Gender nonconforming individuals often desire or need to present their gender in a more ambiguous way. Cisgender is a term that refers to someone who identifies either by nature or by choice with the sex and gender they were assigned at birth and who conforms to the mainstream gender-based societal expectations. This is also often referred to as “gender normative.”

### **Minority Stress Model**

The minority stress model stems from Dohrenwend’s (1966, 1978, 2000) research in community psychology which used the social causation hypothesis in proposing that minority health disparities can be linked to the difficult social situations minority individuals experience that lead to poorer health. More recently, Dentato (2012) generally defined minority stress as “...the relationship between minority and dominant values and resultant conflict with the social environment experienced by minority group members.”

For almost two decades, an adapted version of the minority stress model has been proposed to help explain several negative outcomes experienced by members of the queer community (Meyer 1995, 2003). Meyer’s (2013) recent meta-analysis shows that lesbian, gay, and bisexual individuals experience a higher rate of mental disorders among other negative outcomes such as increased distress, higher rates of suicide attempts, and a greater likelihood of substance abuse. This research is careful and deliberate when explaining that an LGBTQIA+

identity itself is not a disorder or considered negative or causal of such outcomes, but the minority stress model proposes that these results can be attributed to the excess social stressors related to the stigma and prejudice of the dominant-minority conflict.

The impact of minority stress is rarely a one-issue phenomenon. It often becomes very complex when various intersections are observed. For instance, Williams and colleagues (1997) found that participants' perceived discrimination, education, and income levels further complicated the health disparities observed between black and white study participants. One might imagine the exponential increase in the level of stress faced by a black trans-man living in a rural area with limited financial access.

The evidence of minority stress carries implications for mental health professionals. Several professional organizations, including the American Psychological Association (APA) and the American Counseling Association (ACA), have acknowledged and published about the various effects of minority stress (Dentato, 2012; Daniel-Burke, Erby, & Chan, 2015). These organizations have also distributed guidelines regarding the responsibility of mental health practitioners to assess and consider the impact of minority stress on their clients and use this information to make culturally informed decisions regarding the client's mental health treatment, which will be discussed in more detail below.

### **Cultural Competency Guidelines**

The investigator is particularly interested in measuring attitudes toward the queer community as it pertains to clinical cultural competency. The American Psychological Association (APA; 2011) set forth 21 separate guidelines for psychologists regarding psychological practice with gay, lesbian, and bisexual clients. Many of these guidelines require psychologists to be knowledgeable about the LGB population in order to better understand

stigmas, potential experiences, relationship and family issues, and many other aspects of life that may affect those who identify as LGB. APA also endorsed the 7<sup>th</sup> Version of Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People (Coleman et al., 2012) as put forth by the World Professional Association for Transgender Health, which call for mental health professionals to “have familiarity with gender nonconformity, act with appropriate cultural competence, and exhibit sensitivity in providing care” (p. 21). Yet, since then, the APA also appointed a task force charged with creating similar guidelines for working with transgender or otherwise gender non-conforming clients. The result of that task force was a 33-page document discussing the rationale and application of each of the 16 guidelines (see Table 1) put forth by APA in order to “assist psychologists in the provision of culturally competent, developmentally appropriate, and trans-affirmative psychological practice with TGNC people” (APA, 2015, p. 832).

Table 1.

APA Guidelines for Psychological Practice with Transgender and Gender Nonconforming (TGNC) People

Guideline 1.	Psychologists understand that gender is a nonbinary construct that allows for a range of gender identities and that a person’s gender identity may not align with sex assigned at birth.
Guideline 2.	Psychologists understand that gender identity and sexual orientation are distinct but interrelated constructs.
Guideline 3.	Psychologists seek to understand how gender identity intersects with the other cultural identities of TGNC people.
Guideline 4.	Psychologists are aware of how their attitudes about and knowledge of gender identity and gender expression may affect the quality of care they provide to TGNC people and their families.
Guideline 5.	Psychologists recognize how stigma, prejudice, discrimination, and violence affect the health and well-being of TGNC people.
Guideline 6.	Psychologists strive to recognize the influence of institutional barriers on the lives of TGNC people and to assist in developing TGNC-affirmative environments.
Guideline 7.	Psychologists understand the need to promote social change that reduces the negative effects of stigma on the health and well-being of TGNC people.
Guideline 8.	Psychologists working with gender-questioning and TGNC youth understand the different developmental needs of children and adolescents, and that not all youth will persist in a TGNC identity into adulthood.
Guideline 9.	Psychologists strive to understand both the particular challenges that TGNC elders experience and the resilience they can develop.

Guideline 10.	Psychologists strive to understand how mental health concerns may or may not be related to a TGNC person's gender identity and the psychological effects of minority stress.
Guideline 11.	Psychologists recognize that TGNC people are more likely to experience positive life outcomes when they receive social support or trans-affirmative care.
Guideline 12.	Psychologists strive to understand the effects that changes in gender identity and gender expression have on the romantic and sexual relationships of TGNC people.
Guideline 13.	Psychologists seek to understand how parenting and family formation among TGNC people take a variety of forms.
Guideline 14.	Psychologists recognize the potential benefits of an interdisciplinary approach when providing care to TGNC people and strive to work collaboratively with other providers.
Guideline 15.	Psychologists respect the welfare and rights of TGNC participants in research and strive to represent results accurately and avoid misuse or misrepresentation of findings.
Guideline 16.	Psychologists seek to prepare trainees in psychology to work competently with TGNC people.

In addition to the guidelines set aside by psychologists' governing professional organization, study results indicating that members of the LGBTQIA+ community are more likely to experience prejudice and negative outcomes combined with statistics from over 20 years ago which suggest 99% of psychologists see at least one LGBTQIA+ client in their practices (Garnets, Hancock, Cochran, Goodchilds, & Peplau, 1991), all warrant research examining the cultural competency training of future or currently practicing clinicians. A means of assessing attitudes would prove helpful in several ways: it could serve as a personal tool to discover one's own biases and gauge improvements in cultural competency; it could help determine the efficacy of practitioner training; or it could be used as a means of comparing treatment outcomes.

### **Knowledge-Attitude-Behavior Relationship**

Knowledge has long been implicated in the development of attitudes. For instance, Katz (1960) was writing about the "function" of knowledge in forming attitudes over 50 years ago and purported that when wanting to influence or change attitudes, information should be provided to expand the knowledge base that is informing an individual's attitude. Additionally, the field of social psychology introduced the mere exposure effect, also known as the familiarity principle.

The mere exposure effect asserts that people tend to develop a preference for things merely because they are familiar with them. This effect has been produced and replicated in numerous research studies (Zajonc, 2001). If an individual has had limited exposure and is unfamiliar with the LGBTQIA+ community, hostility may be expected. However, based on the familiarity principle, increased knowledge about LGBTQIA+ individuals may improve attitudes toward this community.

Researchers have also consistently found a relationship between one's attitude and their behaviors (see Cialdini, Petty, & Cacioppo, 1981 for review). The cyclical relationship between attitudes, the creation of stereotypes and stigmas, and the consequent behaviors are all contributing factors to the aforementioned negative outcomes as explained by the minority stress model. Thus, obvious reasons exist as to why we should be interested in measuring an individual's attitudes towards the queer community, a community that has historically been oppressed and suffered extreme discrimination. Other than the direct, personal treatment of LGBTQIA+ individuals, attitudes toward this community also have broader, more systematic consequences such as the influence on policy and the care provided by a variety of practitioners including psychologists, counselors, and other types of mental health service providers.

In order to improve the treatment of the LGBTQIA+ community, various interventions, such as educational trainings, are available. For instance, in a previous study (Beck, Smith, & Allen, 2014), the investigator was interested in examining the potential utility of a campus Safe Zone program as a tool to increase the cultural competency of training clinicians toward the queer community. The results of this study indicated the training was effective in improving the knowledge of and attitudes toward the LGBTQIA+ community. However, in formulating this

study according to a pre-/post-test design, several measures of attitudes toward LGBTQIA+ individuals were reviewed and were found to be problematic.

### **Existing Measures**

Most of existing measures to assess attitudes toward the LGBTQIA+ community look at specific or limited identities that may fall under the “queer” label such as The Riddle Scale (Riddle, 1994), The Nungesser Homosexual Attitudes Inventory – Revised (Shidlo, 1994), the Homosexuality Attitude Scale (Kite & Deaux, 1986), the Attitudes toward Lesbians and Gay Men Scale (Herek, 1984), and the Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Heterosexuals (LGB-KASH; Worthington, Dillon, & Becker-Schutte, 2005). The LGB-KASH is to-date the most evolved and nuanced measure of attitudes towards the LGB population and subsequently was used in the prior study. However, as discussed after a brief description of the other measures below, it still proves to be problematic, and a measure does not currently exist which inquires about TGNC and sexual identities in a more general sense or without the use of very specific identity labels. Given the APA policies and guidelines as well as the increased attention finally being paid to the TGNC community, a new measure should acknowledge and respect the issues also faced by these individuals.

**Riddle Scale.** The Riddle Scale (Riddle, 1994) consists of eight attitudes towards LGB-identified individuals (four non-affirmative: repulsion, pity, tolerance, and acceptance and four affirmative: support, admiration, appreciation, and nurturance). Completion of the scale only requires participants to circle the one nominal attitude label that best describe their current attitudes towards LGB individuals. The simplicity of the scale lends to acceptable face validity, but its psychometric properties are otherwise unknown (Tucker & Potocky-Tripodi, 2006).

**The Nungesser Homosexual Attitudes Inventory – Revised.** The Nungesser Homosexual Attitudes Inventory – Revised (NHAI-R; Shidlo, 1994) is used to measure internalized homonegativity (IH). The 40-item questionnaire includes questions such as: “It is important for me to conceal the fact that I am gay/lesbian/bisexual from most people”, “It’s important for me to feel part of the gay community” (reversed); and “There have been times when I’ve felt so rotten about being gay/lesbian/bisexual that I wanted to be dead.” Each item is rated on a 5-point Likert-type scale, such that scores could range between 40 and 200. The NHAI-R has moderate to good internal consistency ( $\alpha = .82$ ) and concurrent validity with coefficient correlations ranging from .59 to .70 ( $p$  values  $< .001$ ; Shidlo, 1994).

**Homosexuality Attitude Scale.** The Homosexuality Attitude Scale (Kite & Deaux, 1986) contains 21 items using a Likert-type scale to assesses people's stereotypes, misconceptions, and anxieties about homosexuals. The measure contains a unidimensional factor representing a favorable or unfavorable evaluation of homosexuals. The scale has excellent internal consistency (alphas  $> .92$ ) and good test-retest reliability ( $r = .71$ ). It was found to be equally reliable for gay male and for lesbian targets, and attitude scores for "gay male", "lesbian", and "homosexual" targets did not differ significantly.

**Attitudes toward Lesbians and Gay Men Scale.** The Attitudes toward Lesbians and Gay Men (ATLG) Scale (Herek, 1984) is a brief measure of heterosexuals’ attitudes toward gay men and lesbians. The original scale consisted of 20 different statements, 10 about gay men (ATG subscale) and 10 about lesbians (ATL subscale), to which respondents indicated their level of agreement or disagreement. Shorter versions have subsequently been developed, consisting of ATG and ATL subscales with parallel versions of 3, 4, or 5 items. These shorter versions have been found to be highly correlated with the original, longer subscales (e.g.,  $r_s > .95$  between 5-

item versions of the ATG and ATL and their 10-item counterparts).

**Lesbian, Gay, and Bisexual Knowledge and Attitudes for Heterosexuals (LGB-KASH).** The measure has a total of 29 items (one of the items being a check question for response consistency: “Please circle the number five on the scale”) separated into five different factors: Hate (six items), Knowledge (five items), Civil Rights (five items), Religious Conflict (seven items), and Internalized Affirmativeness (five items). Several studies have been conducted that show the LGB-KASH is a psychometrically sound measure (see review of studies in Worthington et al., 2005) in terms of validity and reliability statistics.

As previously mentioned, the Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Heterosexuals (LGB-KASH; Appendix A) is currently the best available measure of attitudes toward LGB-identified individuals due to its inclusion of multiple factors and its consideration of bisexual identities. The LGB-KASH, although seemingly much more comprehensive than the other existing measures, is problematic in some ways. Firstly, it should be noted that the LGB-KASH references a very limited number of sexual orientation identities, thus excluding a vast range of other identities that may be similarly stigmatized. The “LGB” acronym refers only to lesbian, gay, and bisexual identified individuals, which constitute only three categories that can be viewed as both minimal and broad. Within the queer community, a vast array of identities exists, so a measure that only asks about three very general categories is exclusionary. At the same time, the categories chosen are broad in their own right. For instance, a respondent may have very different attitudes towards a feminine-presenting or “femme” lesbian than a more masculine-presenting or “butch” lesbian.

The queer community is also largely made up of varying gender identities, which receive no attention within the measure. When developing a measure either about sexual or gender

orientations, it is difficult and somewhat counterintuitive to do so without acknowledging both categories as they are often heavily conflated and connected with one another. Adding questions to create a separate factor to assess attitudes towards trans-identified individuals would not be problematic considering that the measure already consists of multiple factors. However, these factors are based on the LGB identities grouped together, so being able to cover the already present factors (i.e., Hate, Knowledge, Civil Rights, Religious Conflict, and Internalized Affirmativeness) within a new identity factor may require creating an entirely separate measure.

All of the available measures continue to utilize narrowly defined categories, which are constraining to the myriad of potential identities that result from the interaction of numerous variables including, but not limited to sex, societal constructions of gender, and desire. The exclusionary nature of the LGB-KASH, along with other measures, could be indicative of the presence of ostracized identities within an already marginalized population. Historically, this can be compared to other similar phenomena such as the exclusion of women of color from the women's suffrage movement. As progressive researchers, we must find a way in which we can be inclusive of all sexual orientation and gender identities. The deconstruction of prescribed categories according to queer theory appears to be an appropriate springboard, and we must discover how this notion can be practically applied to the development of a survey measure, which will be more inclusive of a larger variety of identities.

Additionally, several of the items assume traits that may not be characteristic of all individuals completing the measure. For instance, some items on the measure are "loaded" (e.g., "I can accept LGB people even though I condemn their behavior." and "I have difficulty reconciling my religious views with my interest in being accepting of LGB people."). These items presume certain attitudes or beliefs held by those completing the measure, which may

make it implausible for people to respond authentically. In the first example item, for instance, respondents can easily be confused as to whether they are agreeing or disagreeing with the “I can accept LGB people” or the “I condemn their behavior” portions of the questions. An individual who does not identify as religious may have difficulty responding to the second example item.

Poorly worded items risk reducing both the validity and reliability of a measure. When questions contain assumptions, the scoring and subsequently, validity of the interpretation is jeopardized because the researcher cannot know if the respondent is answering according to or against the possibly faulty postulation or to the intended content of the item. Similarly, reliability could be threatened in two ways: (1) the same individual could possibly respond differently to items of this type in test-retest situations; or (2) two separate individuals with similar demographic characteristics responding to the one item may come to different conclusions about to which portion of the item they should respond.

It is perplexing why such items would be included in the development of such a measure. One possible explanation for such items is that the developer of the measure included their own assumptions about why one would have more or less favorable attitudes towards LGB individuals. Also, the measure was developed to measure the knowledge and attitudes of heterosexual individuals, and the developer may have believed such individuals would be more likely to hold those assumptions. However, this is still faulty reasoning given that heterosexual identified individuals may or may not be religious and may or may not condemn the behavior of LGB individuals to any extent.

It should be noted that Worthington and colleagues’ (2005) article on the development of the LGB-KASH was published over a decade ago. In the world of academic publishing, we are all well aware that this likely means the data collected for its validation is over 10 years old. In

the past six years alone, we have experienced the repeal of the military “Don’t Ask, Don’t Tell” (DADT) policy, the striking down of federal legislation known as the Defense of Marriage Act (DOMA) and state same-sex marriage bans across the country, and recently, the coverage of gender affirming surgery under the Affordable Healthcare Act (Don't Ask, Don't Tell Repeal Act of 2010; *United States v. Windsor*, 2013; *Obergefell v. Hodges*, 2015; Affordable Care Act of 2016).

While valid a decade ago, many of the items are perhaps dated given the recent progress within the LGBTQIA+ community. Even the appropriately written items [e.g., I am familiar with the work of the National Gay and Lesbian Task Force; I would display a symbol of gay pride (pink triangle, rainbow, etc.) to show support of the LGB community] may benefit from updating, given cohort issues of historical time and place giving rise to new advocacy groups. For example, the National Gay and Lesbian Task Force has since changed their name to the National LGTBQ Task Force to represent movement toward broader inclusivity, and individuals are much more likely to be familiar with the red equal sign displayed all over social media in support of marriage equality rather than the historical pink triangle.

### **Catching Practice Up to (Queer) Theory**

Other than the framework provided by the minority stress model, the basic understanding between the relationship of attitudes and behavior, and the knowledge of existing measures, this study is also drawing on queer theory to create a more inclusive and comprehensive measure of attitudes toward the LGBTQIA+ community. Queer theory has been on the rise for nearly four decades since the first publication of Foucault’s foundational text, *A History of Sexuality* in 1976. However, it was Butler’s (1990) *Gender Trouble*, which is credited with the initial rattling of categories such as “gay,” “lesbian,” and “bisexual” that had previously been considered such

stable identities. Queer theory is a post-structuralist critical theory, which focuses on the construction and subsequent deconstruction of sexual and gender identity categories. Yet, much of the research literature has not caught up with the progression of queer theory as it continues to use discrete population categories such as lesbian, gay, and bisexual in data collection, analysis, and conceptualization.

Another way in which queer theory is expanding our understanding of individuals who identify as anything other than heterosexual or their birth-assigned gender is through the notion of intersectionality. Most commonly recognized as originating in black feminist theory, intersectionality is the notion that individuals are not just defined by one specific trait but rather by numerous characteristics (e.g., race, ethnicity, nationality, gender, sex, sexuality, religious affiliation or non-affiliation, ability, socioeconomic status, social class, etc.), which make-up their identity (Rosenblum, 1994). For example, although both considered members of the queer community, the identity and experience of a white, gay, Jewish, cisgender male is likely much different than that of a black, Buddhist, trans-woman who desires a relationship with a man. Related to the previously discussed minority stress model, it is often the case that individuals will experience oppression, prejudice, and stigma that simultaneously relate to more than one of these characteristics (Gamson & Moon, 2004). The concept of intersectionality is important to keep in mind when developing items to measure an individual's attitudes. For instance, just because someone identifies as a Christian does not mean their religious doctrine requires them to be in opposition with LGBTQIA+ individuals, or even if that is part of their religion's dogma, the individual may choose to not endorse the notions that being LGBTQIA+ is wrong, a sin, or a "lifestyle choice."

There are potential limitations, however, in the practicality of using queer theory in research. It is often argued that while individuals may want to operate outside of the categories they have deconstructed, this is not always feasible. For example, category labels have historically assisted in forming relationships and networks between like individuals and groups for the purpose of safety. Thus, when planning to create a measure so grounded in queer theory that the non-use of categorizations is proposed, one must consider not only the benefit of such a project but also the sheer plausibility. The investigator argues that although difficult, a measure more in line with these values can be created and will allow research practices to better align with the progression of our understanding of sex, gender, and desire.

### **Current Study**

The purpose of this mixed methods study was to examine the LGB-KASH and begin the development of a comprehensive measure of attitudes toward the LGBTQIA+ community. Initially, the LGB-KASH measure was statistically investigated. Next, qualitative data was gathered regarding individuals' reactions to and critiques of the LGB-KASH, a commonly used measure of knowledge and attitudes towards the more restrictive categories of lesbian, gay, and bisexual individuals. This data was then used to revise and develop items, which were administered to participants recruited from three different platforms. The results of this survey were subjected to factor analysis with the goal of creating a new, more inclusive and sustainable measure of attitudes toward a broader LGBTQIA+ population. This new measure can eventually replace outdated measures that are not inclusive of all identities in studies in which it is helpful to have a more accurate measure of an individual's attitudes toward the queer community.

## **STUDY 1: EXAMINATION OF THE FACTOR STRUCTURE OF THE LGB-KASH**

Due to the problematic issues of the LGB-KASH outlined above, the investigator was interested in examining how the LGB-KASH and its established factor structure would hold up with modern data. It was the investigator's prediction that the five-factor structure would not remain due to the outdated and limiting nature of the measure items. Thus, responses to the measure were collected for the purpose of conducting a confirmatory factor analysis.

### **Study 1 Methods**

#### **Participants**

Data was collected from undergraduate students (N = 600) at a public university in the Southeastern United States. Participants were 19 years old on average (SD = 1.2 years) and predominately identified as White/Caucasian 79.5%; Black or African American: 13.6%, Hispanic or Latina/Latino: 1.2%, Mixed or Other: 4.9%. Approximately two-thirds of the participants identified as female (66.8%), one-third as male (32.5%), but just under one percent identified as trans or other (0.7%). As expected, a large majority of the participants identified as heterosexual or straight (87.1%) while the remaining 13% endorsed asexual (8.2%), gay or lesbian (1.0%), bisexual (1.7%), or queer, other, or a combination of sexual orientation identities (1.7%). A majority of students identified as Christian (81%) while another 8.5% of participants identified as agnostic and/or atheist. This question was designed so that participants could select more than one answer, and 14 participants chose multiple options, potentially indicating more complexity in religious identity than is typically assumed. Additionally, most participants rated

their religious identity, or lack thereof, as important to very important (63.8%; Neutral: 24.5%; Unimportant: 5.2%; Very Unimportant: 5.0%).

## **Procedure**

Participants were recruited through the use of a university psychology research subject pool in order to conduct analyses to examine whether current data replicate the existing, published factor structure of the LGB-KASH measure. The subject pool allows students in psychology courses to participate as human subjects in social science research being conducted within the psychology department. The students sign up for studies by logging into an online experiment portal and reading the description of various studies. Students can participate in both lab and online studies in exchange for credit toward the departmental research participation requirement. Other options are also available to students for completing this requirement to remove any potential coercion into research participation from this process. Using the online experiment portal, participants consented to participate in the study in exchange for research credit and then responded to various demographic items (Appendix B) and the LGB-KASH measure (Appendix A).

## **Data Analysis**

After cleaning the data, eliminating participants violating the validity check question (previously described) and those who chose to not respond to more than 6 items on the LGB-KASH, data analyses were performed on a total of 540 of the original participants. Confirmatory factor analysis (CFA) was conducted to test the factor structure of the LGB-KASH due to the a priori assumptions of the existing 5-factor structure of the measure (Appendix A). As recommended by Schmitt (2011), an exploratory factor analysis (EFA) was conducted as a follow-up to the poor fitting CFA model.

## Study 1 Results

### Confirmatory Factor Analysis

The CFA was performed via MPlus version 7.11 (Muthen & Muthen, 2013). Model fit was determined by the cutoff criteria suggested by Hu and Bentler (1999): RMSEA values close to .06 or below and CFI and TLI values close to .95 or greater. The confirmatory factor analysis of the five factor oblique model of the LGB-KASH produced an inadequate fit,  $\chi^2(340, N = 540) = 2017.305, p < .0001, RMSEA = .096, CFI = .914, TLI = .905$ . Due to the poor fit, the model result and  $r^2$  estimates are deemed uninterpretable.

### Exploratory Factor Analysis Results

The EFA indicated that the items better fit an oblique three-factor model (see Table 2). Several of the items did not load well on any factor, and the only factor from the current LGB-KASH factor structure that remained intact was the “Knowledge” scale. The other two factors do not seem to form clear conceptualizations, but one seems to be somewhat of a general factor containing 14 of the original 28 factor items, and the other factor contains only three items, which all endorse some form of conflict regarding the individual’s attitudes toward LGB-identified individuals (i.e., I try not to let my negative beliefs about LGB people harm my relationships with the lesbian, gay, and/ or bisexual individuals I know; and I conceal my negative views toward LGB people when I am with someone who doesn’t share my views; I can accept LGB people even though I condemn their behavior).

Table 2.

## LGB-KASH EFA Structure Matrix

Item	Factor Loadings		
	Factor 1	Factor 2	Factor 3
It is important to teach children positive attitudes toward LGB people.	<b>.796</b>	.344	-.246
I think marriage should be legal for same sex couples.	<b>.792</b>	.381	-.401
Hospitals should acknowledge same sex partners equally to any other next of kin.	<b>.776</b>	.244	-.129
I would attend a demonstration to promote LGB civil rights.	<b>.730</b>	.540	-.523
Health benefits should be available equally to same sex partners as to any other couple.	<b>.727</b>	.231	-.129
It is wrong for courts to make child custody decisions based on a parent's sexual orientation.	<b>.718</b>	.270	-.157
I would display a symbol of gay pride (pink triangle, rainbow, etc.) to show support of the LGB community.	<b>.692</b>	.517	-.464
It is important to me to avoid LGB individuals.	<b>-.677</b>		.153
I have close friends who are LGB.	<b>.583</b>	.399	-.261
I would feel self-conscious greeting a known LGB person in a public place.	<b>-.575</b>	-.107	.210
I would be unsure what to do or say if I met someone who is openly lesbian, gay, or bisexual.	<b>-.552</b>		.185
I have conflicting attitudes or beliefs about LGB people.	<b>-.519</b>	-.253	.512
Hearing about a hate crime against a LGB person would not bother me.	<b>-.470</b>	-.155	.120
LGB people deserve the hatred they receive.	<b>-.416</b>		
I have difficulty reconciling my religious views with my interest in being accepting of LGB people.	-.391	-.125	.379
Feeling attracted to another person of the same sex would not make me uncomfortable.	.383	.368	-.338
I sometimes think about being violent toward LGB people.	-.297	.218	
I am knowledgeable about the significance of the Stonewall Riot to the Gay Liberation Movement.		<b>.756</b>	-.173
I am knowledgeable about the history and mission of the PFLAG organization.	.161	<b>.744</b>	-.198
I am familiar with the work of the National Gay and Lesbian Task Force.	.272	<b>.671</b>	-.172
I could educate others about the history and symbolism behind the "pink triangle."		<b>.652</b>	-.194
I feel qualified to educate others about how to be affirmative regarding LGB issues.	.345	<b>.564</b>	-.277

I have had sexual fantasies about members of my same sex.	.349	.355	-.255
I try not to let my negative beliefs about LGB people harm my relationships with the lesbian, gay, and/ or bisexual individuals I know.	-.106	-.293	<b>.686</b>
I conceal my negative views toward LGB people when I am with someone who doesn't share my views.	-.258	-.187	<b>.635</b>
I can accept LGB people even though I condemn their behavior.	-.148	-.249	<b>.548</b>
I keep my religious views to myself in order accept LGB people.			.370
I conceal my positive attitudes toward LGB people when I am with someone who is homophobic.			.250

*Note.* Factor loadings bolded only to identify factor conceptualization.

### Study 1 Discussion

As expected, the five-factor model of the LGB-KASH did not hold up in a confirmatory factor analysis nor in a follow-up exploratory factor analysis. Many of the questions originally identified as part of the “Religious Conflict” factor proved to be especially problematic. It is suspected that this is due to the double-barreled nature of many of these items (e.g., “I have difficulty reconciling my religious views with my interest in being accepting of LGB people” and “I conceal my negative views toward LGB people when I am with someone who doesn't share my views.”), all of which loaded on a “conflict” factor in the exploratory factor analysis.

This study confirms the need for an updated measure of attitudes toward the LGBTQIA+ community. Attention should be paid to ensure that the items are valid in that they make sense to the respondent and multiple pieces of information are not requested in a singular item. Items should also be updated to reflect more modern understandings of and issues involving the LGBTQIA+ community.

## **STUDY 2: ITEM GENERATION THROUGH QUALITATIVE INQUIRY**

After the LGB-KASH CFA results confirmed the suspicion that the 5-factor structure did not hold up, the process of developing a more comprehensive measure of attitudes toward LGBTQIA+ individuals began with focus groups. In order to create a current-day measure of attitudes, it is necessary to gather opinions from diverse individuals about what kinds of questions to include. Therefore, the next study convened four focus groups of individuals with varying identities to deconstruct their responses to items within the LGB-KASH and to discover additional material or specific questions in need of inclusion on a new measure. The purpose of the focus groups was to broaden the investigator's lens through gathering individuals' reactions to and critiques of the LGB-KASH. These data were then used to revise and develop items with the goal of creating a new, more inclusive and sustainable measure of attitudes toward a broader LGBTQIA+ population.

### **Study 2 Methods**

Qualitative data was gathered through four focus groups used to gauge the experience and interpretation of the LGB-KASH measure. Additional questions were asked to pursue potential improvements and re-conceptualizations of a similar measure to be developed and administered in study 3.

### **Participants**

A total of 22 individuals participated in one of four focus groups. Two of the four focus groups consisted of individuals who identify as members of the queer community and others who

work closely on queer issues. These participants were recruited through networking and organizations that work with the LGBTQIA+ community within the public university located in the Southeastern United States. Further recruitment was achieved through “snowball” sampling methods. The remaining two focus groups consisted of participants gathered through the psychology research pool. The focus groups each had between 4 – 7 participants for a total of 22 focus group participants.

The two focus groups from the research pool were strikingly homogenous. The participants (n =11) all identified as white, cisgender, heterosexual, middle class or higher and were all between 18 – 20 years old. All but one of these 11 participants identified as Christian. The racial homogeneity continued in the 2 focus groups recruited from campus LGBTQIA+ groups; only one member identified as anything other than white. However, there was more diversity with regards to gender, sexual orientation, religiosity, and age; 5 of the 11 participants in these groups identified as genderqueer, agender, or non-binary and 7 identified as queer while no members identified as heterosexual or straight. Only one participant from this group identified as Christian with others indicating Atheist, Agnostic, Buddhist, and/or Spiritual but not Religious identities. The members of the two LGBTQIA+ focus groups ranged in age from 20 – 41 years old.

## **Procedure**

Participants were informed of the purpose and nature of the interview, and they each consented to participate before the focus groups began. The interview was semi-structured, consisting of pre-determined questions but allowed for group process to engender the presentation and response to additional questions that could not be pre-determined. The pre-determined questions were as follows:

1. What are your initial reactions to the LGB-KASH measure?
2. Are there any items that you find helpful? Insightful?
3. Are there any items that you find problematic?
4. Do you have any other reactions or critiques of this measure?
5. The LGB-KASH includes the dimensions of “Hate,” “Knowledge,” “Civil Rights,” “Religious Conflict,” and “Internalized Affirmativeness.”
  - a. Are these constructs appropriate for a measure like this?
  - b. Are there other constructs that should be included?
6. If possible, how would you alter this measure? What new content or information would you include?
7. The measure originally only used the acronym “LGB.” What is your opinion of the use of an acronym which refers to individuals who identify as lesbian, gay, and/or bisexual?
  - a. How might a measure be more inclusive of a wider array of gender and sexual identities?
8. What are the most common cues that indicate to you if an individual has negative (positive) attitudes to queer identified or gender variant individuals?

### **Data Analysis**

According to Sandelowski (2000), qualitative description is the method of choice when straight descriptions of phenomena are desired and the scientific goal is to stay close to the data and to the participants’ own words and description of events. In qualitative description, the goal is often “informational redundancy” or the collection of data until new interviews yield redundant, minimal, or no new information (Lincoln & Guba, 1985; Russell & Gregory, 2003;

Sandelowski, 1995; Sandelowski, 2000). The intention of these focus groups, however, was idea generation rather than the informational redundancy required for standard qualitative analyses.

A three-member analysis team (the author, Dr. Rebecca Allen, and graduate student, Kaleb Murry) independently analyzed transcripts and developed themes. This peer triangulation helped keep the investigator's interpretations in check and allowed for verification of the findings by the team in order to provide solid evidence for the interpretation of the data. Each transcript was read independently, and the text was searched for major themes and subcategories until all transcripts are completed. Throughout the coding process comparative methods were used within and across transcripts in order to illuminate similarities and differences between data. Coders also kept memo logs of their reactions to the focus group interview content.

### **Study 2 Results**

The attitudes and approach varied noticeably between the research pool focus groups, the LGBTQIA+ graduate student, faculty, and staff group, and the undergraduate LGBTQIA+ group. All three coders noted that the two research pool focus groups were more apathetic about the topic. Behaviorally, this was evident in their lack of energy and their less than eager involvement, as well as some of the content of their responses. Perhaps predictably, the focus groups with members of the LGBTQIA+ community were much more involved, although there were some noticeable differences. The LGBTQIA+ graduate student, faculty, and staff group was at times incredulous about some of the LGB-KASH items but were highly interested and involved throughout the discussion. The undergraduate LGBTQIA+ group was highly involved but often seemed angry and offended by the LGB-KASH measure items.

The differences between the LGBTQIA+ and cisgender, heterosexual groups may be due to differing levels of investment in the topic and the research pool participants' perception that

their lives are relatively uninfluenced by LGBTQIA+ issues. The investigator speculates that the difference between the LGBTQIA+ graduate students, faculty, staff and undergraduates is likely due to cohort or developmental differences in identity development. Since the 1970s, it has been proposed that LGBTQIA+ identity development looks different at different points in one's life, especially in relationship to how long an individual has been "out" or considered themselves a part of the LGBTQIA+ community (Cass, 1979). Also, commensurate with age and cohort, exposure to troubling and difficult rhetoric about the LGBTQIA+ community may have made some more desensitized, and thus less reactive to the offensive items on the LGB-KASH. Observationally, it seemed that the graduate students, faculty, and staff defended themselves against these items through laughter and sarcasm, while the undergraduate LGBTQIA+ participants expressed their anger forthrightly.

### **Themes**

Several themes came up across the 4 focus group sessions. Through reviewing coded transcripts, the focus groups were condensed into 8 overall themes: apathy, religion, knowledge/awareness, terminology/phrasing, potential additions, other influences, inclusivity, and gender identity/expression.

**Apathy.** The lack of interest, enthusiasm, and concern was evident in the research pool focus groups. Participants in these groups would frequently state that they "don't care" or "don't have an opinion" regarding many of the items on the LGB-KASH. The apathy appeared to be both behavioral and cognitive in nature with many participants agreeing they would not make an effort to discuss LGBTQIA+ issues with others or they simply do not think about the issues. For instance, one research pool participant shared:

This may sound, like, bad, and I don't mean it, like, in a bad way. I don't have anything

against gay people, but I wouldn't go, like, talk to people about it because, like, I don't, like, care. Like, I don't think about it. It's not like I feel strongly for it or against it; I just feel like, oh, okay, they're gay. Whatever.

Several of the research pool participants agreed with or similarly echoed this sentiment. Another participant indicated they might be more open to a conversation regarding LGBTQIA+ issues if someone such as a friend asked them about their opinion, but otherwise, they believed “it probably wouldn't be brought up otherwise.” Another research pool participant indicated that knowing another's viewpoint could be a determining factor on whether they discussed their own beliefs and attitudes regarding LGBTQIA+ issues but continued to express doubt about whether it would be a point of discussion regardless:

I think #13, where it says, “I can conceal my negative views towards LGB people when I'm with someone who doesn't share my views,” I think like . . . I guess technically if I know they don't feel the same, I'm not going to talk to them about it, but I probably wouldn't talk to them about it anyways because, you know, so many people just don't talk about that a lot... even if they *did* share my views, that's probably not what we're going to be talking about.

These opinions seem to be largely based on the notion that LGBTQIA+ issues do not impact their lives in any way. As one participant stated: “It doesn't really affect me—like, couples in California that I've never met getting married, that doesn't affect me really.”

The focus groups with LGBTQIA+ participants did not express apathy about the topic as the research pool participants did. However, they did predict the apathy of others who do not identify as LGBTQIA+. Participants in the graduate student, faculty, and staff LGBTQIA+ group engaged in an interesting discussion on often-heard “libertarian” views that promotes privacy in a way that cultivates and maintains a “why should I care?...you do your thing, I'll do mine.” attitude regarding LGBTQIA+ issues. They noted that this view may sound apathetic while also acknowledging it is political opinion that seems to be gaining momentum with younger

generations. Participants in this focus group also questioned the boundaries of an individual's apathy by proposing that even individuals who claim they "don't care...eventually [have] a line where they actually do [care]." They discussed examples such as a medical professional, a therapist, and a collegiate football quarterback in a way that seemed to question the physical and emotional exposure an individual may have to an LGBTQIA+ person as well as challenge the gender expression stereotypes associated with both LGBTQIA+ individuals and athletes.

The undergraduate LGBTQIA+ participants stated the belief that apathy may be measured by some of the existing items, although some would need updating. For example, one participant stated they thought the LGB-KASH item regarding not being bothered by hearing about a hate crime against an LGB person was a useful item in identifying apathy. Despite being angered by many of the items, the participants attributed apathy to the lack of media coverage and societal shifts rather than placing the blame directly on apathetic individuals. They conceded that some of the items seemed obvious to them because the issues directly affect them on an almost daily basis. One participant connected by stating:

there are communities that we're not in, that we don't know about it, too, I'm sure. So when you're, like, so deep into it, it's, like, obvious to you, and it's hard—

This participant was interrupted by another who added this was "just a testament of how mainstream media is not going to report it." Another participant added that individuals may not be aware of cases of Brandon Teena and Matthew Sheppard who were murdered during hate crimes for identifying as gay, which are famous within the LGBTQIA+ community, because attitudes have so recently shifted that would allow these stories to be included in mainstream news reports.

**Religion.** Feelings varied regarding the religious undertones of the LGB-KASH measure. Initially, research pool participants reacted positively to the inclusion of religious beliefs. Several of them stated religion plays a “huge part” in the formation of attitudes toward LGBTQIA+ individuals and the belief that the measure did a good job of including these influences. However, others noted that the measures portrayal of religious beliefs and positive attitudes toward LGBTQIA+ individuals as antithetical might not always be an accurate assumption. One participant discussed the potential complexity by stating:

Well, I think some Christian people, like, I do, like, think their behavior is like a sin, but I don't think . . . like, I don't condemn them because of it, because I do things that are like a sin, like, all the time. Like if you talk bad about someone, that's a sin. So I don't think it's any different, and I think, like, some Christian people that are so hateful towards them need to be told that, like, that's not their business, that's not their place to judge, they should be accepting. Because everybody sins.

Focus group participants also brought up the notion of religiosity versus spirituality, purporting that religion includes more “communal” dogma whereas spirituality can be more individually defined. Their assumption claimed that individuals who consider themselves “spiritual” and do not frequent worship services are more likely to be more accepting toward LGBTQIA+ individuals. One research pool participant struggled to describe their understanding of the nuance:

Some Christians, or Baptists or whatever—think it's wrong is because it's a sin...in the Bible or whatever. But I feel like some people that aren't religious, if you aren't religious, then you're not going to really know the sins or whatever, so like you don't really put yourself up to like the same moral conduct that's like in the Bible because most of 'em don't believe that. So, they're not going to . . . like it's not going to be the same kinda reasons why they're not going to accept LGB people as other people. Does that make sense? Like, they might just *not like* the thing, but like . . . other people don't like it because we know that . . . I mean, our ultimate goal is to go to heaven. Then it brings up that question of whether you can go to heaven or not if you're LGB or whatever. So . . . your religious views *will* impact it, but if you're not religious, then you're not going to be able to answer it for the same kind of reason. Because you're not going to—you don't like—you're not really putting yourself against moral standards, like as the Bible. So it

would be two completely different things for why we (religious individuals) would not accept it and other people would not accept it.

Participants in the LGBTQIA+ graduate student, faculty, and staff focus group also picked up on the importance of delineating those who identify as religious and spiritual and the frequency of which “religious” individuals actually attend services or “had their butt in a pew” versus those who fall back on “that’s how I grew up.” Participants suggested an item could use different wording such as “world view...moral code...[or] spirituality” in place of “religion,” but other participants quickly pointed out many would be quick to state that those words could not be used synonymously with religion due to the potential for exclusive identification with each category. LGBTQIA+ graduate student, faculty, and staff also raised a lot of issues with the assumptions that those who identify as religious would also have negative views toward LGBTQIA+ individuals. They discussed this narrow scope of believing it would be someone’s “church or faith...[as] the reason they’d be homophobic” as “messed up.” One participant stated:

...some people might be involved in a church that is very open and very accepting. Well, and if I was that person and I read this test, I’d be pretty upset, because it feels like every time being religious is mentioned, it’s as the negative, it’s as the hold-back force. So I’d be—it would—I would feel alienated by this, I think, if I were kind of a straight ally but actively involved in my church.

The LGBTQIA+ undergraduate participants did not readily name the religious bias in the LGB-KASH items. However, they frequently referenced the “Religious Conflict” items as “leading” and “assuming.”

**Knowledge/Awareness.** Issues with the knowledge items and general awareness level of those who may complete the measure were discussed heavily in all of the focus groups. The focus groups with research pool participants often felt like educational sessions as they frequently asked questions of the interviewers or made statements such as:

“I didn’t know that there were people who . . . harmed gay people just because they were gay.”

“Is there really an issue with health benefits with same-sex couples?”

“What’s the Stonewall Riot?”

“What’s the PFLAG?”

However, one participant pointed out that the difficulty of the knowledge questions might be somewhat telling:

It might just be me, but I don’t understand a lot of the things they might represent, like the symbols and stuff that they . . . LGB people might have, like the pink triangle and stuff. So I think it . . . separates people that really might understand and have a good grasp of, like, what they stand behind and what they support, et cetera.

Without knowledge of the discussion of the focus group participants, the LGBTQIA+ graduate student, faculty, and staff group picked up on a very similar thread with one participant stating that the measure was perhaps trying to identify members of the LGB community based on the presence of knowledge about somewhat obscure history. One participant even expressed doubt that many in the LGBTQIA+ community would know these particular historical facts.

Another participant shared a recent experience that supported these assumptions:

Well I remember I was in New York with a bunch of folks who were in their 20s, and we were actually at a Pride parade, and they were like, “I wonder why Pride’s in June.” . . . And they were like in their 20s . . . and we were like 10 blocks from where the actual Stonewall Bar was, and they were like, “Why is it in June?” And I had to have like a conversation (about the occurrence of the Stonewall Riots in June 1969; first pride parade held to commemorate riots in June 1970), and they were all like . . . they had tons of gay friends, and it was like being gay was, like, totally, *totally* normal and acceptable, and they had no idea about the history . . . So they were, like, *overly* accepting of themselves and their friends, and they had no idea about the history.

The focus group members discussed how it felt like the knowledge questions “skews against...someone [who is] positive and welcoming but doesn’t know their history.” For instance, one participant shared:

...like a family member whose attitudes may be quite different based on a personal experience with someone, but their knowledge of the community—I mean . . . I don’t think my dad could answer any of these, but I don’t think his negativity towards the community or how individuals identify would align with not knowing the answer to any of those history things.

Participants also added that many of the knowledge items might be class-based:

So like, I went to college and so I learned about LGBT history. Or, you know, I didn’t have to work three jobs, I was able to read all these books and I was able to learn about the history of pink triangle.

With regards to the “pink triangle,” item, LGBTQIA+ graduate students, faculty, and staff participants also noted that the “pink triangle” is a symbol from the Holocaust, which could raise awareness of its meaning as it is not solely tied to the LGBTQIA+ community.

Participants in the LGBTQIA+ undergraduate focus group repeatedly noted the datedness of the knowledge items. Many of them acknowledge that despite belonging to the LGBTQIA+ community, they are “not familiar with the work of the Gay and Lesbian Task Force” and “don’t know the history of PFLAG.” Multiple participants stated that even though they do not approve of the Human Rights Campaign as a representative of the LGBTQIA+ community, they believe it should replace the Gay and Lesbian Task Force in items on a newly developed measure as it is more prevalent and widely known now. However, overall, the LGBTQIA+ undergraduate participants questioned the validity and relevance of knowledge items. They were highly skeptical that an individual’s knowledge of LGBTQIA+ history could be a gauge for one’s attitudes toward LGBTQIA+ individuals.

**Phrasing/Terminology.** All of the focus group discussions also brought up issues with the phrasing and terminology used in the LGB-KASH measure. The double-barreled items were especially confusing as participants pointed out that many of the items contained “two parts” but only allow for one response. One research pool participant described this bind:

But I feel some of these are kind of—so, for example, #23 struck me in particular. It says, “I try not to let my negative beliefs about LGB people harm my relationships with lesbian, gay, bisexual, or transgender individuals I know.” How are you supposed to answer that if you’re not . . . if you don’t have negative beliefs obviously, right? Because no matter what you answer, it still has—that sentence has the implication that you have negative beliefs in there.

Another participant shared a similar response to item three: “this one says, “I can accept LGB people even though I condemn their behavior,” but like . . . I don’t condemn their behavior (laugh).” In addition to the problematic phrasing of the items, research pool participants also felt words such as “condemn” and “hate” could often be inaccurate. They thought these words were too “strong” but also came back to feeling confused by the nature of the items:

I don’t *condemn*. When I think of condemn, I think of really bad . . . like, you know, like I hate you or whatever. But like . . . it’s saying that I can accept. So I wouldn’t, like, put the “condemn” word together with “accept.”

Participants in the LGBTQIA+ graduate student, faculty, and staff focus group immediately picked up on the challenging phrasing and terminology of the LGB-KASH. One of the initial responses after a preliminary review of the measure was: “lots of the items make assumptions about the person filling them out.” Another participant expanded:

Yeah. And like #23 especially, “I try not to let my negative beliefs harm my relationships.” So, (a) it’s assuming the responder has negative beliefs and (b) that they have relationships with the community, which seems like that should be multiple questions.

LGBTQIA+ graduate student, faculty, and staff participants also made a more global assessment that almost all of the LGB-KASH items carry a negative valence regarding attitudes toward the LGBTQIA+ community:

It's like it seeks, like, negative responses. It feels like . . . I don't know. I feel like . . . like so many questions regarding . . . like do you feel badly about these people, you know . . . rather than it's coming from a positive sort of way.

Other participants agreed and offered suggestions: “But you're right; the phrasing is about difficulty. So if the phrasing was ‘I am able to hold my religious views and accept LGBT people—or LGB,’ that sort of spin.” While making these observations about the two-part questions, these participants also felt valuable information was missing related to several items. For example, one participant questioned internalized feelings about same-sex sexual fantasies:

There also seems like there's like a—so I have sexual fantasies about members of my same sex. Okay, so, I say “very characteristic”—but how do I feel about that, right? So I might be having all these sexual fantasies, but I have so much shame about it.

A similar issue came up with another item: “okay, ‘I would attend a demonstration to promote LGBT rights.’ Okay, yeah, I would, but I'd feel uncomfortable, right?” Participants questioned externalizing behaviors, as well: “I *could* educate others about the history and symbolism of the pink triangle,” but I don't (laugh).” Participants in this group questioned different wording than research pool participants. For instance, the labeling of out members of the LGBTQIA+ was discussed: “The ‘. . . greeting a known . . .’, ‘unsure to meet someone who's openly lesbian, gay...’ and greeting a known gay person. I love that (sarcasm)—a *known*, like a *known* criminal.” They also continued to question the item regarding same-sex sexual fantasies and preferred an item asking about “attraction” or “interest” rather than “sexual fantasies” because it “plays into the...oversexualized gay individual” and “reduces...being queer [to]...all about having sex.”

The LGBTQIA+ undergraduate participants also picked up on problematic phrasing and terminology within the LGB-KASH. They noted the double-barreled questions:

Number 3 is...weird: You can accept someone even though you condemn their behavior. That's not really acceptance. Or like 13, too: "I conceal my negative views towards—" like, assuming that you have negative views, so how do you answer that?

These participants also commented on the overall negative tone of the measure with one participant exclaiming, "Oh my gosh, some of these are so mean!" when initially reviewing the measure. A participant expanded the discussion about the negative assumptions of the measure:

...just the wording of them, it's like very—like, it just assumes that you already have negative attitudes. Yeah, but the questions feel like they're already assuming your opinions, or leading you to an opinion. If they were just more neutral, and then you indicated your *own* feelings...

These participants also took issue with the use of the word "known" and the item regarding sexual fantasies similar to the graduate student, faculty, and staff group. However, they interpreted "known" as less criminal and more celebrity – "a known LGB person. Like Anderson Cooper?!" They indicated that the item about sexual fantasies felt like "just a weird question to include" and was somewhat redundant with the item about an individual's comfort in feeling attracted to someone of the same-sex.

**Other Influences.** Although participants did recognize the potential influence of religious and spiritual beliefs on attitudes toward the LGBTQIA+ community, they were also curious about other influences on the development of these viewpoints. Many participants in the research pool focus groups spoke to impact one's familial environment and views could have on shaping an individual's attitude toward the LGBTQIA+ community. One participant saw the potential connection with internalized homophobia: "Um, maybe something about, like, parents,

you know, because some people are scared to come out, like “I would disown my child if they were gay.” While others saw the relation between religious beliefs and familial influence:

Because I think that expands the whole “religious” word because that falls totally under your upbringing and what your parents kinda teach you to believe and shape you on their opinions, and that has a huge influence on some people.

Other research pool participants discussed the influence of having someone close to you come out:

...like, environmental pressures. Just like, say, if there is a person that’s wanting to come out, but like they (referring to the other respondents) were saying, parents, friends, anybody else, any other social factors that may influence your choice to do it or not.

Multiple participants described how experiences with LGBTQIA+ family members changed some views within their families. For instance, one participant shared:

At first when my cousin came out it was a little weird for my family, but after a while it was just like . . . there’s nothing you can do about it, it’s not your choice, you can’t really force anything onto somebody, you can’t force something that they don’t want to do, because otherwise that just—that can ruin that relationship. My dad not so much, but me and the rest of my family just sorta learned that, like, it’s just gonna be her way of life so we’re gonna treat her like she would be our cousin anyway.

Another participant indicated that relational proximity could make a difference on the degree of influence an out individual might have on someone’s perception:

...about [item] 22...“I would attend a demonstration,” or whatever. Would that include going to like a wedding for a relative? Because I feel like you would do that. Because, okay, I went to my gay cousin’s wedding this summer, but we went, like, for support or whatever. And so like even if, you know, like . . . that’s probably the only thing I would do, and it wasn’t like I would just do it for anyone, but like . . . we’re really close, so we went.

As previously stated, the LGBTQIA+ graduate student, faculty, and staff participants were already speculating about the influence of social class and education privilege on an individual’s awareness regarding some of the “knowledge” items of the LGB-KASH. Similar to

the research pool participants, they highlighted the potential effect of familial views. They also speculated about the possibility of regional biases, as it often seems as attitudes toward the LGBTQIA+ community varies according to different regions of the country and rural and urban settings. The participants also brought up the potential influence of pop culture as there has been a recent influx of visible LGBTQIA+ “characters” in films and television shows. The LGBTQIA+ graduate student, faculty, and staff participants were also curious about the effect of relational power differential on the communication of attitudes toward the LGBTQIA+ community. For example a participant pointed out:

And #28: “I conceal my positive attitudes towards LGB people when I’m with someone who’s homophobic.” Well, if it’s my boss, yeah, I might. If it’s someone . . . you know, if it’s the police, maybe I might (laugh), right? If the police are calling someone a faggot, you know, maybe I don’t stand up for that person, because they’re the police.

As discussed within the “Apathy” them, LGBTQIA+ undergraduate participants were likely to think of others as being influenced by the media and popular culture. They remained skeptical that *their* narrative were being adequately and appropriately shared with society. They sarcastically mentioned Anderson Cooper as someone who would be “a known gay” and then joked about people thinking Lady Gaga “cured all the homophobes.”

**Lack of Inclusivity.** One of the primary issues investigated was how to make the measure more inclusive to other identities within the LGBTQIA+ community. Inclusivity is one of the themes in which the focus groups differ the most between the research pool groups and the LGBTQIA+ groups. When asked about expanding the measure to include more identities than just lesbian, gay, and bisexual (LGB), the research pool participants seemed mostly confused. For instance, one participant replied, “I didn’t know there was more than one identity—or more than the few identities on the sheet [LGB].” When asked about expanding the acronym to even

LGBT or LGBTQ+, many participants responded similarly: “I’m not completely sure what all of those acronyms stand for...,” “If you put, like, the whole 20 letters, I would not even know it was the same, like, group of people,” and “I would just think it’s a bunch of gibberish.” They also expressed issue with using one umbrella term such as “queer.” Firstly, they still perceive the term “queer” as having a very derogatory connotation and as “a negative word to describe ‘them.’” They also had a very difficult time thinking of queer as an “umbrella” term. They seemed to single out bisexual identity with many agreeing that they would not consider bisexual individuals as having a queer identity. One participant explained their perception:

...when somebody’s being called a queer, you think gay and lesbian... But bisexual, I just never heard that term fall underneath another term. I feel like if somebody’s that, they’re always going to say that one word. They’ll identify themselves as being bisexual and really nothing else. Does that make sense? I mean, I don’t know why I wouldn’t associate queer and bisexual together, but I really wouldn’t.

The graduate student, faculty, and staff LGBTQIA+ participants immediately picked up on the exclusivity of the measure, quickly naming that “it’s all same-sex-based.” They also stated that as members of the LGBTQIA+ community, the measure was “not very fun to read” and “sort of traumatic.” There was quite a bit of discussion within this focus group about the benefits and drawback of expanding the measure to the extent of asking about different identities separately or just expanding the acronym to include more identities within the items. One proponent for separating out the various identities stated:

I like the idea of...having questions specifically asked about the separate identities within one measure. I think that’s good, because I think when people look and they see LGBT, they get one vision, and they don’t see the separate identities.

However, another participant quickly pointed out:

I’d get nervous about separate evaluators, just because of how quickly . . . one, I think that topics around trans identity is evolving so quickly that the idea of it being a separate

test, this month, a year from now we could be saying, “Why of course is this not involved in the same measure?” Right? So how rapidly this conversation is evolving, part one, and then two, I just . . . the laziness—not lazy, but, you know, I think you can’t risk that . . . kind of like, “we’ll do that separate measure later.”

There seemed to be some agreement around a hybrid of sorts. One participant proposed “asking specific questions about lesbians, gay men, bisexuals, and transgender and . . . mixing it all up.” This idea drew additional support from another participant who believed this “might suss out more of the bias around bisexuality, too.”

The LGBTQIA+ undergraduate participants had a similar reaction to that of the graduate student, faculty, and staff participants in noting that the LGB-KASH is “not inclusive at all.” Participants made comments such as: “I don’t see *my* identity on here;” “this obviously isn’t enough;” and “I know if *I* was to take this as a queer person, I don’t feel like this is accurate at all.” Even after explaining to the participants that the measure was constructed to be administered to individuals who identify as heterosexual, they still raised valid points about how exclusionary that assumption is. For example, one participant explained: “. . .not everyone taking this is going to be straight. They’re going to be like, what the hell (laugh)? And they’re just going to feel more erased, probably.” LGBTQIA+ undergraduate participants also engaged in discussion about how to include more identities in the measure. At first it was suggested that “expanding the acronym would be a good start” to “including way more identities . . . than just LGB.” Another participant quickly added:

I wouldn’t lump them together the way that they are because I mean, I feel like when people . . . when the *mainstream* audience sees the acronym, they think lesbian, gay, and then bi, trans, queer are all kind of erased from their mental picture. So when they’re answering that, they sort of have this narrow view of, oh, how would I react to a gay person walking down the road? Or something. And you don’t really get them to consciously think about their feelings towards queer people, trans people, and even bi people, because lord knows . . . bi erasure is not a good thing.

**Gender Identity/Expression.** Related to the exclusive nature of the LGB-KASH, many focus group participants noted the lack of trans-identity representation. However, this is another theme where there were notable differences between the research pool groups and the LGBTQIA+ groups. Participants in the research pool groups again seemed confused by the notion that gender is not actually a binary construct. One participant stated, “Um...I mean, the transgender end, most of that group, um...I don’t really understand them as much as just LGB.” Another participant agreed that they did not believe trans identities belonged in the measure because they believed “LGB is different...because in this one [excluding trans], you’re not...you don’t think you’re like a different person, if that makes sense.” At one point, in a tone rife with disdain, another participant added, “I guess under ‘internalized affirmativeness’ you could put, I don’t know, some questions like ‘Sometimes I’ve identified with the other sex,’ or something. I don’t know.”

The attitude in the focus groups with LGBTQIA+ identified participants was very different. One of the very first things uttered in the focus group with LGBTQIA+ graduate student, faculty, and staff was “It’s missing a T” followed shortly by another participant agreeing, “I am totally irked by the no T, also.” This continued the conversation of how to be more inclusive to various gender identities and expressions that are conflated with sexual orientation issues but also separate. Participants discussed the “T gap” in research and the need to collect more information and data related to these identities. However, the participants also considered the aforementioned differences between gender and sexual orientation issues and continued to wonder if attitudes toward both could be adequately and appropriately assessed in one measure. The participants also predicted the additional difficulties others may have understanding trans identities as compared to sexual orientation identities, such as LGB.

However, as previously mentioned, the participants also recognized gender is highly conflated with sexual orientation – one does not have sexual orientation identities without the assignment of gender. This led to a discussion of potential items such as: “I don’t mind lesbians as long as they look like women...as long as they have long hair” and “I can accept my gay male friend as long he doesn't swish like a girl.”

Similarly, the initial focus of the LGBTQIA+ undergraduate focus group participants was “the complete lack of trans.” They frequently discussed “the complete lack of trans.” However, they also expressed similar hesitation around including trans identities in such a measure for fear that there was not yet enough educated awareness for most individuals to be able to understand the inclusion of this identity.

**Potential Additions.** In addition to the more abstract and theoretical feedback provided about the LGB-KASH, the focus groups also provided input about existing items they found useful as well as potential new items to be included in the prospective item pool. Participants in the research pool focus groups liked items regarding teaching children positive attitudes toward LGBTQIA+ individuals, same-sex marriage, and displaying an LGBTQIA+ symbol or attending a demonstration. Research pool participants also provided insight about adding items regarding the effect of relational connections with individuals who identify as LGBTQIA+. For instance, they suggested items such as: “My views became more positive after meeting folks who identify as LGBT” and “It (knowledge of LGBTQIA+ identity) would not change the way I feel about like a friend.”

The participants in the LGBTQIA+ graduate student, faculty, and staff focus group also discussed items that could be kept and updated, potential new items, and also suggested possible

changes to the response scale. The participants named several items they would keep in the measure:

- Hospitals should acknowledge same sex partners equally to any other next of kin;
- I would display a symbol of gay pride (pink triangle, rainbow, etc.) to show support of the LGBT community;
- I would feel self-conscious greeting an LGB person in a public place;
- It is important to teach children positive attitudes toward LGB people;
- LGB people deserve the hatred they receive; and
- I think marriage should be legal for same-sex couples.

In addition to keeping the same-sex marriage item, participants suggested adding items related to non-discrimination policies for same-sex couples in the form of workplace and housing protections. Also, they believed some of the items needed qualifiers such as: “I would *comfortably or happily* attend a demonstration to promote LGB rights” and “I *enjoy* my sexual fantasies about members of the same sex.” Participants acknowledged there was an item regarding violence toward LGB individuals, but they also pointed out that biased and hostile environments are often created through intimidation and problematic language use. Item suggestions that stemmed from this conversation were: “I am aware of alternate words that I should use around LGB people” such as “partner” instead of “husband, wife, boyfriend, girlfriend, etc.” and whether people thought using terms such as “homosexual” or “faggot” were acceptable. They also believe an item regarding reactions to LGBTQIA+ public displays of affection would be useful as it was discussed that “don’t throw it in my face” is a common response received by members of the LGBTQIA+ community. LGBTQIA+ graduate student,

faculty, and staff participants also wanted to expand the questions related to ally behavior. For example, one participant commented:

I'd be curious to have a question about intervening if you were to see a behavior. So a lot of these—I know there's the attend a parade or something like that. Demonstration, right. But it's kind of like one-on-one conversation with homophobic person, one-on-one conversation with person who's uncomfortable, but maybe you see a display of homophobia, would you intervene?

There was also a discussion of changing the Likert-type response scale to include an odd number of response options (e.g., five or seven) instead of six as a way to indicate neutrality or being undecided. The participants also had a lot of questions about the demographics collected along with the item responses and suggested adding a question about level of “out-ness” for those who indicated they identify as LGBTQIA+.

LGBTQIA+ undergraduate participants were the least invested in discussing potential additions. The investigator interpreted this as a defense: not wanting to contribute to a measure that was so highly offensive to them. However, out of their skepticism came a suggestion to ask participants about the identities within the LGBTQIA+ community with which they are familiar.

## **Study 2 Discussion**

Valuable reactions and feedback regarding the LGB-KASH measure was gathered from the focus groups. As expected, the focus groups identified the inclusion of several double-barreled questions, which often made assumptions about the individual completing the measure. Also, investigators initially noted the exclusive nature of the measure, but the focus groups exposed this as primarily noticeable to those with an already high level of familiarity with the LGBTQIA+ community. Relatedly, the differences between the non-LGBTQIA+ and LGBTQIA+ focus groups were also prominent as the research pool focus group participants

endorsed notable apathy regarding LGBTQIA+ issues whereas LGBTQIA+ identified participants were highly reactive to the LGB-KASH measure.

Based on the responses received in the focus group portion of study, some of the items from the original LGB-KASH were retained in the item pool for this new measure. Some of the items required editing of terminology and phrasing, and many of the items from the LGB-KASH's "Knowledge" factor, which held up in the first study's EFA, required updating to a more modern level of awareness. Also, items were added regarding a variety of issues discussed in the focus groups. For example, items were added regarding an apathetic attitude, language use, adherence to the gender binary, perceptions of bisexual individuals, ally behavior, familial influence, and trans affirmation. Furthermore, in an attempt to make the measure more inclusive, the "LGB" acronym was extended to "LGBTQ+" for some items, and items specific to certain identities were also included. A full list of the prospective items is available in Appendix D.

### **STUDY 3: NEW MEASUREMENT DEVELOPMENT**

After collecting information regarding reactions to the LGB-KASH and ideas about what a measure of attitudes toward the queer community should include, a large pool of potential measure items (Appendix D) was created drawing from both existing measures and information gained from the focus group interviews. The pool of items was administered to 660 participants, and the data was analyzed in order to begin the creation of a new measure of attitudes toward the LGBTQIA+ community.

#### **Study 3 Methods**

##### **Participants**

Participants were recruited in three ways. As in Study 1, the psychology department's undergraduate research pool was used to recruit participants who received credit towards a course requirement for completing the questionnaires. The questionnaires were also sent through the listservs and social media pages of LGBTQIA+ organizations on the same Southeastern college campus in the US. Finally, the questionnaire was distributed through Amazon's Mechanical Turk (MTurk), a crowdsourcing marketplace through which participants were awarded \$0.25 for completing the survey. The 656 participants were divided among the three recruitment techniques as follows: 615 participants from the department research pool, 34 participants from the LGBTQIA+ campus groups, and 7 participants from MTurk. Collected data was then screened for validity, and cases were deleted if participants responded incorrectly to more than one of the four validity checks (items requesting participants to select a certain response to indicate their attention to item content) or if numerous items were left blank. A total

of 71 participants were excluded from the analyses due to these reasons. After these exclusions, 585 cases remained for analyses (research pool  $n = 560$ , LGBTQIA+ campus groups = 20, MTurk  $n = 5$ ).

Approximately half ( $n = 37$ , 3 campus group participants and 34 research pool participants) were removed due to incorrect responses to more than one of the four validity checks, which could be indicative of inattentiveness when completing the survey, thus rendering their responses as invalid and unreliable. Chi-square analyses indicated no significant differences between individuals included or excluded related to gender, sexual orientation, or religious/spiritual beliefs. However, there was a significant difference between these groups according to race/ethnicity ( $\chi^2(6, n = 618) = 13.765, p = .032$ ). Adjusted residuals ( $z$  scores) indicated there were more Asian participants ( $z = 2.5$ ) excluded due to validity check items than expected due to chance and more white participants ( $z = 3.0$ ) in the included group than expected due to chance. Independent samples  $t$ -test indicated no significant difference ( $t(615) = 3.687, p = .088$ ) between the mean ages of the excluded due to validity check items group and the included cases group.

Of the remaining 585 cases, the sample was predominantly white, heterosexual, cisgender women. Although ages ranged from 17 to 65, the sample was clearly skewed to younger participants with a median age of 18 years old and average age of 19.2 years old, which makes sense as approximately 87% of participants identified as freshman or sophomore university students. Additional demographics of this sample are listed in Table 3.

Table 3.

Participant Demographics		
	Demographic	% of Participants (n)
Race/Ethnicity (n = 581)	American Indian/Alaskan Native	< 1% (2)
	Another	< 1% (2)
	Asian	1.9% (11)
	Black/African American	10.1% (59)
	Hispanic/Latin	2.6% (15)
	Multiracial	2.6% (15)
	White	81.5% (477)
Sex (n = 584)	Another	< 1% (2)
	Endorsed More than 1	1.2% (7)
	Female	73.7% (431)
	Intersex	< 1% (1)
	Male	24.1% (141)
	Transexual	< 1% (2)
Gender (n = 580)	Agender	< 1% (1)
	Another	< 1% (1)
	Endorsed More than 1	2.1% (12)
	Genderqueer	< 1% (1)
	Man	23.6% (138)
	Transgender	< 1% (4)
	Two-Spirit	< 1% (1)
Woman	72.1% (422)	
Sexual Orientation (n = 581)	Another	< 1% (1)
	Asexual	3.9% (23)
	Bisexual	2.1% (12)
	Endorsed More than 1	2.1% (12)
	Gay	< 1% (5)
	Heterosexual	87.9% (514)
	Lesbian	1.0% (6)
	Queer	1.0% (6)
Questioning	< 1% (2)	
Religious/Spiritual Beliefs (n = 579)	Agnostic	7.4% (43)
	Another	2.6% (15)
	Atheist	2.6% (15)
	Buddhist	< 1% (3)
	Christian	77.6% (454)
	Endorsed More than 1	3.6% (21)
	Hindu	< 1% (1)
	Jewish	1.2% (7)
	Spiritual but not Religious	2.9% (17)
Unitarian Universalist	< 1% (3)	

Most reported their religious preference, or lack thereof, and engagement with this identity was important to very important (religious preference: 28.2% very important, 32.8% important, 23.9% neutral, 8.4% unimportant, and 6.0% very unimportant; religious engagement: 22.4% very important, 30.8% important, 28.2% neutral, 10.6% unimportant, and 7.4% very unimportant). Finally, as a measure of confidence in their knowledge of the LGBTQ+ community, participants were asked if they knew what the “LGBTQ+” acronym represented. Less than half (46.2%) indicated they knew the acronym while 31.5% indicated they partially knew the acronym, and over a fifth (21.7%) of participants indicated they did not know what the acronym represents.

### **Procedure**

A pool of 106 prospective items (Appendix D; the measure included the 4 validity check items previously discussed bringing the total item count to 110) retained from the LGB-KASH and generated from recent literature, legislation, and the information gathered in the focus groups as well as a demographic questionnaire (Appendix C) were constructed. The participants consented to participate in the study and completed the questionnaires (demographics followed by prospective items) online through the Qualtrics survey software. Research indicates online data collection provides more anonymity, which is especially important when conducting research about sexual and gender minorities in order to protect undisclosed identities and reduce responses based in social desirability (Barak & English, 2002).

### **Data Analysis**

The 585 complete data cases exceeded the desired ratio of 5 participants to every 1 item (Gorsuch, 1983). Due to the large number of items and cases, SPSS 24 was used for this study’s analyses. Principal axis factoring (PAF) with a promax rotation was used for extraction, as it was

suspected that the items may be intercorrelated (Worthington & Whittaker, 2006). The literature suggests that a true common-factor analysis, such as PAF, is preferable for new scale development due to its ability to better identify latent constructs accounting for shared variance among items, as compared to the commonly used principle component analysis (PCA), which reduces the number of items while retaining as much of the original item variance as possible without fully accounting for shared variance and latent constructs (Costello & Osborne, 2005; Gorsuch, 1983; Worthington & Whittaker, 2006). Less than 1.5% of cases were missing data for any one item. Per recommended practices for handling missing data in factor analysis studies, cases were deleted pairwise (Peugh & Enders, 2004).

### **Study 3 Results**

#### **Preliminary Analyses**

The factorability of the data set was evaluated using Bartlett's (1950) test of sphericity and the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy. The KMO value was .940 and Bartlett's test was significant ( $p < .000$ ), suggesting the data were appropriate for factor analysis (Tabachnick & Fidell, 2001; Worthington & Whittaker, 2006). Also, the communality estimates ranged from  $\hat{h} = .301$  to  $\hat{h} = .793$ , which indicates an appropriate range for factor analysis (Costello & Osborne, 2005). If this initial exploratory factor analysis results in a viable measure for future study, confirmatory factor analyses (CFA) with new samples will compare model fits through the examination of RMSEA, CFI, and TLI results.

#### **Exploratory Factor Analysis**

The use of multiple criteria is recommended in determining the number of factors to extract during EFA (Costello & Osborne, 2005; Kahn, 2006; Worthington & Whittaker, 2006). Cattell's scree test involves visually examining the scree plot, a graphical representation of the

eigenvalues (i.e., amount of variance accounted for) of factors, to determine the location at which the graph flattens out (i.e., notable variance is not being accounted for by additional factors). The initial observed scree test suggested an optimal solution of 14 factors. However, in order to assess the relative merit of the factor solutions, pattern coefficients for each solution were examined. Items that had less than the minimum rotated factor loading of .30 (Kahn, 2006) and that cross-loaded with a difference less than .30 were considered for deletion (Worthington & Whittaker, 2006). The scale was modified through an iterative process of deleting the weakest items, conducting a new factor analysis with the remaining items, and assessing items based on the new solution (Kahn, 2006), which ultimately reduced the number of items from 106 to 53. This 9-factor solution had the best overall statistical properties: reasonable factor loadings (primary loading greater than .32), adequate items per factor, and the lowest cross-loadings while accounting for a total of 62.23% of the variance.

Table 4.

Nine-Factor Solution EFA Structure Matrix

Item	Factor Loadings								
	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7	Factor8	Factor9
Same-sex couples should be allowed to raise a child.	<b>.878</b>			-.451	-.395	-.359		.455	-.306
Same-sex relationships may be healthy relationships.	<b>.857</b>			-.495	-.373	-.305		.420	-.323
I believe same sex couples should be able to attend prom	<b>.848</b>			-.483	-.344	-.412		.397	-.315
I think marriage should be legal for same sex couples.	<b>.845</b>		.314	-.520	-.429			.448	-.310
I would attend a same-sex wedding ceremony if invited by a close friend or family member.	<b>.828</b>			-.447	-.403	-.334		.336	
Health benefits should be available equally to same sex partners as to any other couple.	<b>.807</b>			-.420		-.461		.528	
I would be supportive if my best friend came out as LGBTQ+.	<b>.794</b>			-.509	-.361	-.439		.398	-.308
I would vote in support of LGBTQ+ unions with the same legal rights as marriage.	<b>.793</b>		.352	-.539	-.465			.429	-.427
LGBTQ+ people should be	<b>.781</b>			-.403	-.326			.437	

allowed to adopt children.							
I would support my child if they were LGBTQ+	<b>.756</b>		-495	-409	-440	.450	-365
It is important to teach children positive attitudes toward LGBTQ+ people.	<b>.748</b>	.408	-.572	-.414	-.431	.524	-.405
I would go to a doctor who identified as LGBTQ+.	<b>.721</b>	.348	-.527		-.343	.506	-365
It is wrong for courts to make child custody decisions based on a parent's sexual orientation.	<b>.699</b>		-.384		-.380	.480	
Hospitals should acknowledge same sex partners equally to any other next of kin.	<b>.693</b>		-.345		-.418	.415	
I would allow my children to attend a school that had an LGBTQ+ teacher.	<b>.691</b>		-.387		-.375	.405	
I would attend a church that is welcoming of LGBTQ+ individuals.	<b>.605</b>		-.364	-.350	-.323	.309	
Heterosexual romantic relationships are more likely to be healthier than same-sex romantic relationships.	<b>.752</b>						
People who were born as males who identify as female are gay men trying to trick straight men into having sex with them.	<b>.701</b>						
I believe LGB+ individuals can be healed or cured of their same-sex/gender attractions.	<b>.690</b>						
People choose to experience same-sex attractions.	<b>.671</b>						
I believe people who engage in sexual behaviors consistent with an LGBTQ+ identity are sinning when they do so.	<b>.669</b>					-.345	
I would be more disturbed seeing people who are attracted to the same sex showing affection toward each other publically more so than a heterosexual romantic couple.	<b>.654</b>					-.402	
I believe discriminating against LGBTQ+ is not a form of prejudice because they choose to be that way.	<b>.622</b>						
Bisexual women are promiscuous.	<b>.570</b>						
I am familiar with the work of the National LGBTQ Task Force.		<b>.741</b>					
I am knowledgeable about the significance of the Stonewall		<b>.734</b>	-.300			.330	

Riot to the Gay Liberation Movement.						
I could educate others about the history and symbolism behind the “pink triangle.”			<b>.723</b>			
I can name more than one gay activist.			<b>.680</b>	-.345		.323
I feel qualified to educate others about how to be favorable to LGBTQ+ issues.	.359		<b>.619</b>	-.451		-.419
I am familiar with the work of the Human Rights Campaign (HRC).			<b>.548</b>			
Bisexual men are really gay.	-.505		-.341	<b>.816</b>	.310	.465
I think men who like to dress up in women's clothes are gay.	-.456		-.338	<b>.792</b>	.361	.506
All people are either a man or a woman.	-.543		-.496	<b>.702</b>	.429	-.377 .514
I believe bisexuals are confused about whether they are gay or straight.	-.414		-.334	<b>.678</b>		.468
All people who do drag (e.g., present as another gender solely for entertainment of others) are transsexuals.	-.321			<b>.639</b>		.362
The terms transsexual and transgender mean the same thing.				<b>.519</b>		.343
The primary household I was raised in was disapproving of LGBTQ+ individuals.	-.357			.308	<b>.897</b>	.311
The primary household I was raised in was supportive of LGBTQ+ individuals.	.483			-.345	<b>-.841</b>	-.344
My parents would be disappointed if I came out as LGBTQ+.	-.343			.366	<b>.783</b>	.402
LGBTQ+ individuals are more likely to be sex offenders.	-.444			.416	<b>.649</b>	-.306 .328
I would become violent if a known LGBTQ+ person flirted with me.	-.420			.355	<b>.639</b>	.326
Gay people deserve to be discriminated against.	-.411				<b>.620</b>	
I would damage the property of a known LGBTQ+ person.					<b>.606</b>	
I sometimes think about being violent toward LGBTQ+ people.					<b>.519</b>	
I have participated in organizations dedicated to LGBTQ+ and allied individuals.	-.351		.322			<b>.820</b>
I am knowledgeable about the history and mission of the PFLAG organization.						<b>.705</b>

I have had sexual fantasies about members of my same sex/gender.								<b>.610</b>
I think LGBTQ+ individuals are discriminated against.	.485							<b>.799</b>
I think LGBTQ+ individuals face workplace discrimination based on their sexual or gender identity.	.451							<b>.799</b>
I think LGBTQ+ individuals are an oppressed group.	.450	.370	-.387					<b>.561</b>
I do not care to talk about LGBTQ+ issues with my friends.	-.326	-.343	.526					<b>.792</b>
I don't care about LGBTQ+ issues.	-.397	-.423	.600	.300	.312			<b>.696</b>
I do not care to talk about LGBTQ+ issues with my family.			.327	.357				<b>.641</b>

Clearly, many of the items are cross-loaded. However, when creating such a measure, items are not expected to be orthogonal and some overlap is expected. Items with a less than .30 difference in their factor loadings were considered for deletion, but some were retained due to theoretical fit within a factor. Additionally, factor correlations are provided in Table 5, which continue to indicate conceptual fit and overlap.

Table 5.

Nine-Factor Correlation Matrix

Factor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Affirmativeness								
(2) Judgment	-.088							
(3) Knowledge	.321	-.180						
(4) Bisexual & Trans Myths	-.591	.103	-.476					
(5) Familial Influence	-.451	.101	-.280	.403				
(6) Violent Hate	-.450	.009	.102	.340	.065			
(7)	.154	-.313	.376	-.218	-.046	-.054		

Affirmative Involvement								
(8) Discrimination Recognition	.546	-.054	.316	-.379	-.122	-.354	.090	
(9) Apathy	-.397	.096	-.405	.645	.400	.267	-.143	-.309

### The Nine Factors

The current solution divided 53 items into nine, uneven factors. The first factor contains 16 of the 53 items while the other eight factors contain between 3 and 8 items. The nine factors do appear to indicate conceptual groups, and the investigator labeled the nine factors accordingly: affirmativeness, judgment, knowledge, bisexual and trans myths, familial influence, violent hate, affirmative involvement, discrimination recognition, and apathy. Table 6 reports the items that load onto each factor.

Table 6.

#### Nine-Factor Item Conceptualization

Factor (# of items)	Items
Affirmativeness (16)	Same-sex couples should be allowed to raise a child.
	Same-sex relationships may be healthy relationships.
	I believe same sex couples should be able to attend prom
	I think marriage should be legal for same sex couples.
	I would attend a same-sex wedding ceremony if invited by a close friend or family member.
	Health benefits should be available equally to same sex partners as to any other couple.
	I would be supportive if my best friend came out as LGBTQ+.
	I would vote in support of LGBTQ+ unions with the same legal rights as marriage.
	LGBTQ+ people should be allowed to adopt children.
	I would support my child if they were LGBTQ+
	It is important to teach children positive attitudes toward LGBTQ+ people.
	I would go to a doctor who identified as LGBTQ+.
	It is wrong for courts to make child custody decisions based on a parent's sexual orientation.
	Hospitals should acknowledge same sex partners equally to any other next of kin.

	I would allow my children to attend a school that had an LGBTQ+ teacher.
	I would attend a church that is welcoming of LGBTQ+ individuals.
Judgment (8)	Heterosexual romantic relationships are more likely to be healthier than same-sex romantic relationships.
	People who were born as males who identify as female are gay men trying to trick straight men into having sex with them.
	I believe LGB+ individuals can be healed or cured of their same-sex/gender attractions.
	People choose to experience same-sex attractions.
	I believe people who engage in sexual behaviors consistent with an LGBTQ+ identity are sinning when they do so.
	I would be more disturbed seeing people who are attracted to the same sex showing affection toward each other publically more so than a heterosexual romantic couple.
	I believe discriminating against LGBTQ+ is not a form of prejudice because they choose to be that way.
	Bisexual women are promiscuous.
Knowledge (6)	I am familiar with the work of the National LGBTQ Task Force.
	I am knowledgeable about the significance of the Stonewall Riot to the Gay Liberation Movement.
	I could educate others about the history and symbolism behind the pink triangle.
	I can name more than one gay activist.
	I feel qualified to educate others about how to be favorable to LGBTQ+ issues.
	I am familiar with the work of the Human Rights Campaign (HRC).
Bisexual & Trans Myths (6)	Bisexual men are really gay.
	I think men who like to dress up in women's clothes are gay.
	All people are either a man or a woman.
	I believe bisexuals are confused about whether they are gay or straight.
	All people who do drag (e.g., present as another gender solely for entertainment of others) are transsexuals.
	The terms transsexual and transgender mean the same thing.
Familial Influence (3)	The primary household I was raised in was disapproving of LGBTQ+ individuals.
	The primary household I was raised in was supportive of LGBTQ+ individuals.
	My parents would be disappointed if I came out as LGBTQ+.
Violent Hate (5)	LGBTQ+ individuals are more likely to be sex offenders.
	I would become violent if a known LGBTQ+ person flirted with me.

	Gay people deserve to be discriminated against.
	I would damage the property of a known LGBTQ+ person.
	I sometimes think about being violent toward LGBTQ+ people.
Affirmative Involvement (3)	I have participated in organizations dedicated to LGBTQ+ and allied individuals.
	I am knowledgeable about the history and mission of the PFLAG organization.
	I have had sexual fantasies about members of my same sex/gender.
Discrimination Recognition (3)	I think LGBTQ+ individuals are discriminated against.
	I think LGBTQ+ individuals face workplace discrimination based on their sexual or gender identity.
	I think LGBTQ+ individuals are an oppressed group.
Apathy (3)	I do not care to talk about LGBTQ+ issues with my friends.
	I don't care about LGBTQ+ issues.
	I do not care to talk about LGBTQ+ issues with my family.

### Associations of the Nine Factors with Demographic Characteristics

As shown in Table 7 below, the scores on the nine factors consistently ranged from the lowest possible score to the highest possible according to the response scale range (1-6) and the number of items loading on the factor. The only exceptions are factor 1 (Affirmativeness) where the lowest possible score was a 16, and the minimum in this sample was 17 and factor 6 (Violent Hate) where the highest possible score was a 30, and the maximum in this sample was 21.

Table 7.

Factor Descriptives						
Factor	N	Minimum	Maximum	Mean	SD	
1: Affirmativeness	567	17	96	72.00	21.59	
2: Judgment	568	8	48	12.00	8.83	
3: Knowledge	574	6	36	11.64	5.96	
4: Bisexual & Trans Myths	571	6	36	17.66	7.51	
5: Familial Influence	574	3	18	11.62	4.89	
6: Violent Hate	572	5	21	6.80	2.98	
7: Affirmative Involvement	576	3	18	5.32	3.45	
8: Discrimination Recognition	571	3	18	12.23	3.83	
9: Apathy	573	3	18	9.32	4.05	

Although additional analyses are required for the validation of the nine-factor structure found in this exploratory factor analysis, the investigator was interested in the demographic correlates of each of the factors in this sample. The relationship between age and the factors was examined through the computation of Pearson correlations. One-way Analyses of Variance (ANOVA) were completed to investigate the relationships between each of the nine factors and additional demographic variables such as race, gender, sexual orientation, religion, and LGBTQ+ awareness (as measured by response to item regarding how well they know what “LGBTQ+” represents). When significant differences were indicated, Games-Howell post-hoc comparisons were examined to better understand group differences. Games-Howell post-hocs were chosen as a more conservative comparative approach due to unequal group sizes and variances. The results indicated no significant differences in factor scores based on race/ethnicity. As such, this result will not be repeated for each of the nine factors below.

**Factor 1: Affirmativeness.** The Affirmativeness factor was found to be positively and significantly correlated with participant age,  $r(564) = 0.126, p = .003$ . A one-way ANOVA also indicated significant differences in Affirmativeness scores based on gender,  $F(3, 558) = 5.520, p = 0.001$ . Games-Howell comparisons indicated that participants who identified as women and those who endorsed more than one gender category scored higher on the Affirmativeness factor than participants who identified as men. Affirmativeness scores also varied based on sexual orientation,  $F(6, 557) = 5.849, p < .001$ . Games-Howell comparisons showed participants who identified as bisexual, gay, and queer scored higher on the Affirmativeness factor than asexual and heterosexual participants. Also, participants who identified as more than one sexual orientation demonstrated higher Affirmativeness scores than heterosexual participants. Scores on the Affirmativeness factor were also related to participants’ religious/spiritual beliefs,  $F(8, 555)$

= 6.834,  $p < .001$ . Christian participants scored lower in Affirmativeness compared to participants who identified as Agnostic, Atheist, and Spiritual but Not Religious. LGBTQ+ awareness appeared to also predict Affirmativeness scores,  $F(2, 564) = 21.037, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored lower in Affirmativeness than participants who indicated they did know or at least partially knew the acronym.

**Factor 2: Judgment.** The Judgment factor was found to be negatively and significantly correlated with participant age,  $r(565) = -0.139, p = .001$ . Significant differences in Judgment scores were also noted according to participant gender,  $F(3, 560) = 7.556, p < .001$ . Men were found to score higher in Judgment than participants who identified as women, transgender, or as more than one gender. Judgment scores also varied according to participant sexual orientation,  $F(6, 558) = 6.757, p < .001$ . Asexual and heterosexual participants scored higher in Judgment than participants who identified as bisexual, lesbian, queer, and those who endorsed more than one sexual orientation. Scores on the Judgment factor were also related to participants' religious/spiritual beliefs,  $F(8, 556) = 8.108, p < .001$ . Christian participants scored higher in Judgment than participants who identified as Agnostic, Atheist, Spiritual but Not Religious, and those who endorsed more than one religious/spiritual belief. Judgment factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 565) = 12.978, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored higher in Judgment than participants who indicated they did know or at least partially knew the acronym.

**Factor 3: Knowledge.** The Knowledge factor was found to be positively and significantly correlated with participant age,  $r(571) = 0.287, p < .001$ . Significant differences in Knowledge scores were also noted to vary according to participant gender,  $F(3, 565) = 10.464, p$

< .001, however, Games-Howell post-hoc analyses did not indicate significant differences in the comparisons. This result is likely due to the greater sensitivity of ANOVA analyses as compared to the more conservative Games-Howell pairwise tests. Knowledge scores also varied according to participant sexual orientation,  $F(6, 564) = 29.747, p < .001$ . Participants who identified as Queer and those who endorsed more than one sexual orientation scored higher than Asexual and Heterosexual participants on the Knowledge factor. Scores on the Knowledge factor were also related to participants' religious/spiritual beliefs,  $F(8, 562) = 11.677, p < .001$ . Christian participants scored lower on the Knowledge factor than participants who identified as Agnostic and Atheist. Atheist also scored higher on the Knowledge factor than participants who indicated "Another" religious/spiritual beliefs. Knowledge factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 571) = 18.883, p < .001$ . Participants who responded they knew what the LGBTQ+ acronym represented scored higher on Knowledge than participants who indicated they partially knew or did not know the acronym.

**Factor 4: Bisexual & Trans Myths.** The Myths factor was found to be negatively and significantly correlated with participant age,  $r(568) = -0.169, p < .001$ . Significant differences in Myths scores were also noted according to participant gender,  $F(3, 562) = 5.820, p = .001$ . Men were found to score higher on the Myths factor than participants who endorsed more than one gender. Myths scores also varied according to participant sexual orientation,  $F(6, 561) = 10.869, p < .001$ . Asexual and heterosexual participants scored higher on the Myths factor than participants who identified as bisexual, queer, and those who endorsed more than one sexual orientation. Scores on the Myths factor were also related to participants' religious/spiritual beliefs,  $F(8, 559) = 8.452, p < .001$ . Christian participants scored higher on the Myths factor than participants who identified as Agnostic and Atheist. Myths factor scores were also significantly

related to LGBTQ+ awareness,  $F(2, 568) = 17.604, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored higher on the Myths factor than participants who indicated they did know or at least partially knew the acronym. Further, participants who only partially knew the acronym also scored higher on the Myths factor than those who indicated they knew the acronym.

**Factor 5: Familial Influence.** In addition to race/ethnicity, scores on the Familial Influence factor were not found to be significantly related age, gender, sexual orientation, religion, or LGBTQ+ awareness.

**Factor 6: Violent Hate.** Scores on the Violent Hate factor were not significantly related to age, race/ethnicity, or sexual orientation. However, Violent Hate scores did vary based on gender,  $F(3, 563) = 5.373, p = .001$ . Men scored higher on the Violent Hate factor than all other participants (women, trans, and those who endorsed more than one gender), and women scored higher on this factor compared to participants who endorsed more than one gender. Religious and spiritual beliefs were also related to Violent Hate scores,  $F(8, 560) = 2.015, p = .043$ , but the only significant difference detected by Games-Howell post-hoc comparisons was higher scores for Christian-identified participants compared to the three participants who identify as Unitarian Universalist. Violent Hate factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 569) = 22.036, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored higher on the Violent Hate factor than participants who indicated they did know or at least partially knew the acronym.

**Factor 7: Affirmative Involvement.** The Affirmative Involvement factor was found to be positively and significantly correlated with participant age,  $r(573) = 0.314, p < .001$ . Significant differences in Affirmative Involvement scores were also noted according to

participant gender,  $F(3, 567) = 14.399, p < .001$ . Participants who endorsed more than one gender scored higher on Affirmative Involvement than participants who identified as men or women. Affirmative Involvement scores also varied according to participant sexual orientation,  $F(6, 566) = 60.261, p < .001$ . Participants who identified as bisexual, gay, queer, or endorsed more than one sexual orientation scored higher on Affirmative Involvement than Asexual and Heterosexual Participants. Queer participants also scored higher than bisexual participants. Scores on the Affirmative Involvement factor were also related to participants' religious/spiritual beliefs,  $F(8, 564) = 15.798, p < .001$ . Christian participants scored lower on Affirmative Involvement than participants who identified as Agnostic and Atheist. Affirmative Involvement factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 573) = 13.306, p < .001$ . Participants who responded that they knew what the LGBTQ+ acronym represented scored higher on Affirmative Involvement than participants who indicated they did not know or only partially knew the acronym.

**Factor 8: Discrimination Recognition.** Discrimination Recognition was found to be positively and significantly correlated with participant age,  $r(568) = 0.126, p = .003$ . Significant differences in Discrimination Recognition factor scores were also noted according to participant gender,  $F(3, 562) = 2.887, p = .035$ , however, Games-Howell post-hoc analyses again did not indicate significant differences in the comparisons. Discrimination Recognition scores also varied according to participant sexual orientation,  $F(6, 561) = 7.098, p < .001$ . Bisexual and gay participants scored high on Discrimination Recognition than asexual and heterosexual participants. Also, participants who endorsed more than one sexual orientation scored higher than asexual participants. Scores on the Discrimination Recognition factor were also related to participants' religious/spiritual beliefs,  $F(8, 559) = 6.128, p < .001$ . Christian participants scored

lower on Discrimination Recognition than participants who identified as Agnostic and Spiritual but Not Religious. Discrimination Recognition factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 568) = 22.498, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored lower on Discrimination Recognition than participants who indicated they did know or at least partially knew the acronym.

**Factor 9: Apathy.** The Apathy factor was found to be negatively and significantly correlated with participant age,  $r(572) = -0.143, p = .001$ . Significant differences in Apathy scores were also noted according to participant gender,  $F(3, 564) = 12.325, p < .001$ . Men were found to score higher in Apathy than participants who identified as women or transgender. Apathy scores also varied according to participant sexual orientation,  $F(6, 563) = 4.201, p < .001$ . Asexual and heterosexual participants scored higher in Apathy than participants who identified as queer. Scores on the Apathy factor were also related to participants' religious/spiritual beliefs,  $F(8, 561) = 2.981, p = .003$ , however, Games-Howell post-hoc analyses again did not indicate significant differences in the comparisons. Apathy factor scores were also significantly related to LGBTQ+ awareness,  $F(2, 570) = 14.845, p < .001$ . Participants who responded that they did not know what the LGBTQ+ acronym represented scored higher in Apathy than participants who indicated they did know or at least partially knew the acronym.

### **Study 3 Discussion**

The exploratory factor analyses showed that the best solution with the current data was a nine-factor model. Additional validation will be necessary for several reasons. Ideally, the analyses would indicate higher communality estimates and smaller cross-loadings. However, the nine factor solution appears statistically valid and the item overlaps are consistent with the conceptual interpretation of the factors.

The first and largest factor, Affirmativeness, is composed of 16 items that indicate beliefs that LGBTQ+ people deserve the equal rights and protections and the support and acceptance of others who identify as LGBTQ+. The seventh factor, Affirmative Involvement, seems similar to this first factor, but after further review, it appears the three items on the Affirmative Involvement factor are more indicative of personal involvement and affirmativeness, whereas the first factor is more “other” focused. The second factor, Judgment, contains eight items expressing beliefs that LGBTQ+ individuals are wrong or less healthy in their identity “choice.” The third factor is a straightforward Knowledge indicator. The fourth factor contains items that are mostly endorsing myths about bisexual and trans-identified individuals. There seems to be some conceptual overlap between this factor and items on the “Judgment” factor (i.e., People who were born as males who identify as female are gay men trying to trick straight men into having sex with them.); however, there was no statistical evidence to support this as the items loading on the fourth factor do not also load on the Judgment (second) factor (see Table 2). The fifth factor contains three items regarding familial viewpoints or influence regarding LGBTQ+ individuals. The sixth factor, Violent Hate, is comprised of items indicating such disdain for LGBTQ+ individuals that it would warrant violent interaction. Factor 8 includes items that indicate the recognition of the discrimination and oppression faced by the LGBTQ+ community. The final factor contains 3 items that indicate an apathetic attitude toward LGBTQ+ issues.

One suggestion from the LGBTQIA+ graduate student, faculty, and staff focus group was to change the item responses to include an odd number of responses (i.e., response 1 – 7 instead of 1 – 6). However, the investigator continued with the use of the even-numbered scale (1 – 6) due to the ambiguity that arises when a midpoint is provided. Researchers can only speculate about the endorsement of midpoint responses on these scales – does it represent neutrality or

perhaps apathy or is this response used as an easy way to rush through surveys? Granted, apathy and neutrality are valid viewpoints, as indicated by the inclusion of apathy items and an apathy factor in this measure's development. In order to remove as much investigator interpretational power as possible, an even, directional scale was determined to be the best option for this purpose of this study.

The correlations between the factors and various demographic variables revealed interesting relationships. One surprise was the amount to which individuals who indicated an asexual identity were connected with more negative attitudes toward the LGBTQIA+ community. One potential hypothesis is that participants reported their sexuality as asexual if they have never or are not currently engaged in a sexual relationship. This makes more sense in light of how often asexual and heterosexual individuals were found to have similar relationships with various factors given that asexual individuals often identify as members of the LGBTQIA+ community. Also, factor 5 (Familial Influence) is the only factor that did not correlate with any of the demographic variables. It should be noted that this factor is the most objective factor as it is a description of personal, lived experiences and is not as much of a constructed concept as attitudes or knowledge, which make up the other eight factors. Moreover, every individual is likely influenced by their familial influence regardless of knowledge or attitudes toward the LGBTQIA+ community, potentially washing out associations with demographic variables.

## GENERAL DISCUSSION

The three studies included in this paper have initiated the development of a new measure of attitudes toward the LGBTQIA+ community. The process began with a statistical investigation into the existing measure, the LGB-KASH, and demonstrated the original five-factor model of the LGB-KASH could not be replicated. Next, information was gathered from four focus groups regarding reactions to the LGB-KASH measure, which allowed for the generation of ideas regarding necessary updates and potential items for a new measure. After creating a pool of 106 items and gathering responses from 585 participants, the final study resulted in a new potential nine-factor, 53-item measure of attitudes toward the LGBTQIA+ community.

Consistent with the investigator's hypotheses, the original factor structure of the LGB-KASH did not hold up. However, it was the focus groups that brought to light so many issues beyond the outdated-ness of the measure that was also full of assuming, double-barreled items. The focus group participants' feedback contained information that stood up in a broad item pool – issues such as: apathy, familial influence, violence, involvement, myths, and the recognition of discrimination.

In an interesting parallel, focus group participants also raised the investigator's awareness about the general *lack* of awareness regarding the LGBTQIA+ community. Over half of participants not fully knowing what LGBTQ+ represents is important in interpretation of these results. On one hand, the importance of more inclusive educational programming, potentially

such as Safe Zone programs on college campuses, is clearly warranted. However, when considering how to measure an individual's attitudes and beliefs toward the LGBTQIA+ community, we can return to queer theory and especially Butler's (1990) notion of performativity. Performativity asserts that our cultural identities are most often not our own to live and portray, but they are also performed onto us by the repeated enforcement of social constructs. Thus, while it will be helpful to many for us to educate about the existence of various identities, the oppression they face, and the respect and humanity they deserve, the work cannot neglect the need to dig down to the roots of the constructs that set the boundaries for categorical markers such as L, G, B, T, Q, I, A, and others. It is impossible to escape the daily implications of gender roles, sex taboos, racial and ethnic profiling, wealth and social privilege, ability and age assumptions, and the systemic and structural violence we impose on those who do not fit the standards of those classifications and many others. These issues are likely to underlie any response given to such a measure, regardless of your awareness of the LGBTQIA+ community.

### **Limitations**

The results of the present studies should be interpreted within the context of their limitations. Firstly, the overall homogeneity of the sample indicates that the results cannot be broadly generalized. The samples for each of the studies were predominately white, and almost all of the data was gathered in the Southeastern United states. While half of the focus group participants identified as members of the LGBTQIA+ community, a majority of the participants in the samples for studies one and two identified as cisgender and heterosexual.

Another limitation is the general difficulty in creating a measure of attitudes toward such a varied and dynamic community. Valid, reliable, quantitative measures often require some degree of operationalization. In post-modern society and communities that are rejecting limited

definitions and classifications, the categorization of identities required by such a measure is nearly impossible. As noted by the rapid shifts in exposure, policy, and law, the importance of historical context, time, and place is also a challenge. Creating a measure to be valid and reliable for ongoing research is somewhat like trying to hit a moving target, not just one trajectory, in a very diverse milieu.

### **Future Studies**

The potential for several future studies has stemmed from this three-part project. Firstly, continued validation of this new measure is certainly necessary. As previously discussed, a more diverse sample is necessary to confirm the nine-factor structure found in this study. Confirmatory factor analyses will also be necessary to continue the replication and use of the measure.

Although beyond the scope of this project, the focus groups provided a lot of suggestions of information to gather and later examine in relation to attitudes toward the LGBTQIA+ community. For example, religiosity and spirituality was a frequently discussed topic, and a future project would allow us to explore the correlations between religious beliefs and the endorsement of different attitudes and beliefs.

Additionally, participants' self-reported level of awareness of the meaning of the LGBTQ+ acronym was found to be related to scores on eight of the nine factors. Given the connection between knowledge, attitudes, and behaviors, future research should continue to examine participant awareness with attitudes and beliefs about the LGBTQIA+ community. It is likely that this additional evidence will bolster the need for basic training and educational programs, such as Safe Zone. As mentioned before, however, broader discussions of underlying issues such as the construction and deconstruction of identity concepts (e.g., gender, sexual relationships, race, wealth, social capital, age, ability, and power) could potentially be a more

effective means for longer-term societal change beyond just providing information about the LGBTQIA+ community.

## **Conclusion**

In the day and age where people can turn on the television and laugh along with the stereotypical tropes of “Modern Family” and fetishize the relationships in “Orange is the New Black” without considering the difficulties of the first-generation gay male on the college campus in the Southeastern United States or the unjust imprisonment of people of color and trans individuals, the lack of knowledge and support of the LGBTQIA+ community cannot be surprising. Yet, for some it is. Many think we have entered a time of being post-race and post-gender and post-sexual orientation, and the “American Dream” tells us we can do anything and be anyone (if we work hard enough). Yet, here we are, over a decade into the 21<sup>st</sup> century, and we find people can still pass judgment and advocate violence toward the LGBTQIA+ community while members of that community are losing jobs, being denied housing and parental rights, and experiencing rejection on a far too frequent basis.

Despite the limitation and difficulties faced by researchers in this area, the potential benefit of a measure of attitudes and knowledge toward the LGBTQIA+ community is great. In a time when effective change is brought about through constant assessment and evaluation and the narrative of harmful experiences is only validated through research and numbers, we must work with and from within our communities to advocate for and ensure oppressed voices are heard. The work of social justice-oriented researchers, practitioners, policy writers and others will likely never end, but we only slow ourselves down by trying to navigate a broken system with outdated and ineffective tools. This project began the construction of a general assessment tool that can allow for the better understanding of attitudes and awareness toward the LGBTQ+ community.

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**APPENDIX A  
LGB-KASH**

Worthington, R. L., Dillon, F. R., & Becker-Schutte, A. M. (2005).

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Very <b>uncharacteristic</b> of me or my views					Very <b>characteristic</b> of me or my views

1. I feel qualified to educate others about how to be affirmative regarding LGB issues.
2. I have conflicting attitudes or beliefs about LGB people.
3. I can accept LGB people even though I condemn their behavior.
4. It is important to me to avoid LGB individuals.
5. I could educate others about the history and symbolism behind the “pink triangle.”
6. I have close friends who are LGB.
7. I have difficulty reconciling my religious views with my interest in being accepting of LGB people.
8. I would be unsure what to do or say if I met someone who is openly lesbian, gay, or bisexual.
9. Hearing about a hate crime against a LGB person would not bother me.
10. I am knowledgeable about the significance of the Stonewall Riot to the Gay Liberation Movement.
11. I think marriage should be legal for same sex couples.
12. I keep my religious views to myself in order accept LGB people.

13. I conceal my negative views toward LGB people when I am with someone who doesn't share my views.
14. Please circle the number five on the scale.
15. I sometimes think about being violent toward LGB people.
16. Feeling attracted to another person of the same sex would not make me uncomfortable.
17. I am familiar with the work of the National Gay and Lesbian Task Force.
18. I would display a symbol of gay pride (pink triangle, rainbow, etc.) to show support of the LGB community.
19. I would feel self-conscious greeting a known LGB person in a public place.
20. I have had sexual fantasies about members of my same sex.
21. I am knowledgeable about the history and mission of the PFLAG organization.
22. I would attend a demonstration to promote LGB civil rights.
23. I try not to let my negative beliefs about LGB people harm my relationships with the lesbian, gay, bisexual, and/or transgender individuals I know.
24. It is wrong for courts to make child custody decisions based on a parent's sexual orientation.
25. Hospitals should acknowledge same sex partners equally to any other next of kin.
26. LGB people deserve the hatred they receive.
27. It is important to teach children positive attitudes toward LGB people.
28. I conceal my positive attitudes toward LGB people when I am with someone who is homophobic.
29. Health benefits should be available equally to same sex partners as to any other couple.

**Hate:** 4, 8, 9, 14, 18, 25

**Knowledge:** 1, 5, 10, 16, 20

**Civil Rights:** 11, 23, 24, 26, 28

**Religious Conflict:** 2, 3, 7, 12, 13, 22, 27

**Internalized Affirmativeness:** 6, 15, 17, 19, 21

**APPENDIX B**  
**STUDY 1 DEMOGRAPHIC INFORMATION**

1. Year classification

- freshman
- sophomore
- junior
- senior
- graduate student
- other (please specify) \_\_\_\_\_

2. Age \_\_\_\_\_

3. Ethnicity (select all that apply and/or provide additional information in “other”)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic or Latino/Latina
- Native Hawaiian or Other Pacific Islander
- White/Caucasian or Other European Descent
- other (please specify) \_\_\_\_\_

4. Sex (select all that apply and/or provide additional information in “other”)

- female
- male
- transsexual; male to female
- transsexual; female to male
- intersex
- third gender
- other (please specify) \_\_\_\_\_

5. Gender Identity (select all that apply and/or provide additional information in “other”)

- man
- woman
- transgender; man to woman
- transgender; woman to man
- third gender
- two spirit
- agender
- genderqueer
- other \_\_\_\_\_

6. Sexual Orientation (select all that apply and/or provide additional information in “other”)

- asexual
- bisexual
- gay
- heterosexual/straight
- lesbian
- unsure
- queer
- other (please specify) \_\_\_\_\_

7. Marital Status

- single
- casually dating
- serious/committed long-term relationship
- engaged
- married
- domestic partnership
- separated
- divorced
- widowed
- other (please specify) \_\_\_\_\_

8. Religious/Spiritual Beliefs (select all that apply and/or provide additional information in “other”)

- Agnostic
- Atheist
- Buddhist
- Christian
- Hindu
- Jewish
- Muslim
- Spiritual but not religious
- other (please specify) \_\_\_\_\_ or specific denomination or sect

9. To what extent does your religious or spiritual preference play an important role in your life?

- Very important
- Important
- Neutral
- Unimportant
- Very Unimportant

10. Thinking of your household's total monthly income for the majority of your life, how would you say that your household was/is able to make ends meet?

- With great difficulty
- With some difficulty
- Somewhat easily
- Very easily

11. Place (state, province, area) of Origin \_\_\_\_\_

12. Place (state, province, area) of Longest Residence \_\_\_\_\_

**APPENDIX C**  
**STUDY 3 QUESTIONNAIRE PACKET**

**Demographic Information**

1. Year classification

- freshman
- sophomore
- junior
- senior
- graduate student
- another (please specify) \_\_\_\_\_

2. Age \_\_\_\_\_

3. Ethnicity (select all that apply and/or provide additional information in “other”)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic or Latino/Latina
- Native Hawaiian or Other Pacific Islander
- White/Caucasian or Other European Descent
- another (please specify) \_\_\_\_\_

7. Relationship Status

- single
- casually dating
- serious/committed long-term relationship
- engaged
- married
- domestic partnership
- separated
- divorced
- widowed
- another (please specify) \_\_\_\_\_

8. Religious/Spiritual Beliefs (select all that apply and/or provide additional information in “other”)

- Agnostic
  - Atheist
  - Bahá’í
  - Buddhist
  - Christian – Catholic
  - Christian – Protestant
  - Hindu
  - Jewish
  - Muslim
  - Spiritual but not religious
  - Unitarian Universalist
  - another (please specify) or specific denomination or sect
- 

9. To what extent does your religious or spiritual preference play an important role in your life?

- Very important
- Important
- Neutral
- Unimportant
- Very Unimportant

9. To what extent does your religious or spiritual engagement play an important role in your life?

- Very important
- Important
- Neutral
- Unimportant
- Very Unimportant

11. Thinking of your household’s total monthly income for the majority of your life, how would you say that your household was/is able to make ends meet?

- With great difficulty
- With some difficulty
- Somewhat easily
- Very easily

12. Place (state, province, area) of Origin \_\_\_\_\_

13. Place (state, province, area) of Longest Residence \_\_\_\_\_

**LBGTQ+ Background Screener**

Do you know what the acronym “LBGTQ+” represents?

- Yes
- No
- Partially

One extended version of this acronym is: “LBGTQQIP2SAA” Fill in as many of the following as you can:

The “L” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “G” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “B” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “T” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “Q” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “Q” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “I” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “P” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “2S” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “A” in LBGTQQIP2SAA stands for... \_\_\_\_\_

The “A” in LBGTQQIP2SAA stands for... \_\_\_\_\_

**Definitions provided for the above:**

**L – Lesbian:** *A woman with emotional, physical and/or sexual attraction to other women, and who self-identifies as a lesbian.*

**G – Gay:** *an individual who is attracted to members of the same gender and/or sex. The term “gay” is a the preferred umbrella term instead of the term “homosexual”.*

**B – Bisexual or Bi:** *An individual who is romantically, emotionally, sexually, affectionately, and/or relationally attracted to more than one gender; but not necessarily simultaneously or equally.*

**T – Trans\*/Transgender** *is an umbrella term that refers to people whose self-identification, anatomy, appearance, manner, expression, behavior, and/or other perceptions differ from conventional or cultural expectations of congruent gender expression and designated birth sex. Note: Not everyone whose appearance or behavior is gender-atypical will self-identify as transgender.*

**Q – Queer:** *Not straight. Outside the socially constructed norms of gender or sexuality. Initially a pejorative term, “queer” has been reclaimed by many to represent gender/sex fluidity. Some individuals are still uncomfortable labeling themselves as or using the term “queer”, but many younger individuals utilize the term as both a political statement and a reflection of their approach to sexuality and gender.*

**Q – Questioning:** *the process of exploring one’s own sexual orientation and/or gender identity, investigating the influences that may from their family, religious upbringings, and internal motivations.*

**I – Intersex:** *Intersex is a socially constructed category that reflects real biological variation in reproductive, sexual, or hormonal. Intersex anatomy may or may not be expressed at birth. Some intersex people identify as transgender while others do not.*

**P – Pansexual:** *An individual with a fluid sexuality and/or gender or sex identity.*

**2S – Two-Spirit:** *Individuals within Native American and Canadian First Nation tribes whose gender identification includes both male and female and usually implies a masculine spirit and a feminine spirit living in the same body. Two-Spirit is a contemporary term that references historical multiple-gender traditions in many First Nations cultures. In many Nations, being Two-Spirit carries both great respect and additional commitments and responsibilities to one’s community. Two-Spirit people have distinct gender and social roles in their tribes.*

*A – Asexual: An individual without sexual feelings or a sexual orientation. Many asexual individuals do have meaningful and lasting relationships exclusive of sexual intimacy. Individuals who believe their lack of sexual attraction places them outside dominant definitions of gender may also identify as asexual.*

*A – Ally: In the context of the LGBTQ+ community, a person who supports and honors sexual and gender diversity, challenges homophobic, heterosexist, and transphobic language and behaviors, and who is willing to continue to learn about and explore the forms of bias that exist within themselves*

**LGBTQ+:** any combination of letters attempting to represent all the identities in the queer community; the plus symbol at the end is included as a signifier that it is near impossible to create an exhaustive list or acronym that includes all of the various identities.

**The following section contains items inquiring about your connection(s) to individuals who identify as LGBTQ+. You may respond with the same person in mind to multiple questions if they hold more than one of the identities below.**

Do you know anyone who identifies as lesbian or gay?

Yes No

If yes, on a scale of 1 – 7, how close are you with this individual (if you know multiple people of this identity, answer this item based on the person you are closest to with this identity)?

Do you know anyone who identifies as bisexual?

Yes No

If yes, on a scale of 1 – 7, how close are you with this individual (if you know multiple people of this identity, answer this item based on the person you are closest to with this identity)?

Do you know any one who identifies as queer?

Yes No

If yes, on a scale of 1 – 7, how close are you with this individual (if you know multiple people of this identity, answer this item based on the person you are closest to with this identity)?

Do you anyone who identifies as trans?

Yes No

If yes, on a scale of 1 – 7, how close are you with this individual (if you know multiple people of this identity, answer this item based on the person you are closest to with this identity)?

*The following section contains items inquiring about your own gender identity and sexual orientation.*

Sex (select all that apply and/or provide additional information in “another”)

- female
- male
- transsexual; male to female
- transsexual; female to male
- intersex
- another not listed (please specify) \_\_\_\_\_

Gender Identity (select all that apply and/or provide additional information in “other”)

- man
- woman
- transgender
  - I identify as a woman.
  - I identify as a man.
- third gender
- two spirit
- agender
- genderqueer
- another not listed (please specify) \_\_\_\_\_

*(If anything besides man or woman):* How much do feel you have disclosed your gender identity (i.e., how “out” are you regarding your gender identity) on the 7-point scale below?

Sexual Orientation (select all that apply and/or provide additional information in “other”)

- asexual
- bisexual
- gay
- heterosexual/straight
- lesbian
- questioning/unsure
- queer
- another not listed (please specify) \_\_\_\_\_

*(If anything besides heterosexual/straight):* How much do feel you have disclosed your sexual orientation (i.e., how “out” are you regarding your sexual orientation) on the 7-point scale below?

**APPENDIX D**  
**STUDY 3 NEW MEASURE ITEMS**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Very <b>uncharacteristic</b> of me or my views					Very <b>characteristic</b> of me or my views

- 1) I do not think about LGBTQ+ issues.
- 2) I feel qualified to educate others about how to be favorable to LGBTQ+ issues.
- 3) I use the term homosexual.
- 4) I use negative terms to refer to people who I think are LGBTQ+.
- 5) I would be unsure what to do or say if I met someone who is openly LGBTQ+.
- 6) People can identify as both a man and a woman even if their assigned sex is female.
- 7) LGB+ individuals cannot be monogamous like heterosexuals.
- 8) I would not trust someone who was LGBTQ+ around children.
- 9) I am familiar with the work of the Human Rights Campaign (HRC).
- 10) It is important to teach children positive attitudes toward LGBTQ+ people.
- 11) I do not believe that non-LGBTQ+ individuals can be truly okay with LGBTQ+ individuals.
- 12) I think men who like to dress up in women's clothes are gay.
- 13) Bisexual men are really gay.
- 14) I would allow my children to attend a school that had an LGBTQ+ teacher.
- 15) I believe employers should not be able to fire an individual based on their LGBTQ+ identity.
- 16) I sometimes think about being violent toward LGBTQ+ people.
- 17) Hospitals should acknowledge same sex partners equally to any other next of kin.
- 18) I believe same sex couples should be able to attend prom.

- 19) Select the number 5 for this item.
- 20) I am willing to speak up for the LGBTQ+ community when I am with someone who is expressing homophobia.
- 21) I would be supportive if my best friend came out as LGBTQ+.
- 22) My relationship with my child would be damaged if they came out as LGBTQ+.
- 23) Hearing about a hate crime against a LGBTQ+ person would not bother me.
- 24) I would only vote on LGBTQ+ issues if I was already voting on something else.
- 25) The terms transsexual and transgender mean the same thing.
- 26) I would interfere in some manner if I saw someone harassing a LGBTQ+ person.
- 27) I would attend a same-sex wedding ceremony if invited by a close friend or family member.
- 28) I attend religious and/or spiritual gatherings in an organization that is unsupportive of the behavior of LGBTQ+ identified individuals.
- 29) All people who experience same-sex attractions had trauma as a child that made them that way.
- 30) I would attend a demonstration to promote LGBTQ+ civil rights.
- 31) I think LGBTQ+ individuals are an oppressed group.
- 32) LGBTQ+ movements should be included in high school's history education.
- 33) I condemn the behavior of LGBTQ+ individuals.
- 34) All people who do drag (e.g., present as another gender solely for entertainment of others) are transsexuals.
- 35) I would damage the property of a known LGBTQ+ person.
- 36) Select the number 2 for this item.
- 37) Polygamous relationships may be healthy relationships.
- 38) I believe gender should always be biologically determined.
- 39) I assume allies of the LGBTQ+ community identify as LGBTQ+ themselves.
- 40) I would vote in support of LGBTQ+ unions with the same legal rights as marriage.
- 41) LGTBQ+ issues do not affect me.
- 42) I believe college campuses need to offer gender non-specific housing for people who do not identify as the gender or sex that aligns with their sex organs.

- 43) Other cultures accept more than two genders (man and woman) as natural.
- 44) I do not care to talk about LGBTQ+ issues my family.
- 45) When I see a same-sex couple holding hands in public, I feel they are flaunting their sexuality.
- 46) Feeling attracted to another person of the same sex would not make me uncomfortable.
- 47) All people are either a man or a woman.
- 48) I could educate others about the history and symbolism behind the pink triangle.
- 49) I can name more than one gay activist.
- 50) I would attend a church that is welcoming of LGBTQ+ individuals. .
- 51) What I have been taught hinders my acceptance of LGBTQ+ people.
- 52) I do not care to talk about LGBTQ+ issues with my friends.
- 53) Select the number 3 for this item.
- 54) I would feel self-conscious greeting an LGBTQ+ person in a public place.
- 55) I use the term hermaphrodite.
- 56) Babies should have their sex organs surgically assigned male or female if their sex organs are unclear at birth.
- 57) Heterosexism and homophobia are the same thing.
- 58) Representation of same-sex couples to children will result in them becoming attracted to the same sex when they grow up.
- 59) Same-sex couples should be allowed to raise a child.
- 60) It is important to me to avoid LGBTQ+ individuals.
- 61) My high school had a student organization for LGBTQ+ and allied students.
- 62) I believe bisexuals are confused about whether they are gay or straight.
- 63) If I were to attend a religious and/or spiritual gathering, I would seek out an organization that is welcoming and affirming toward LGBTQ+ individuals.
- 64) I am willing to campaign in support of legislation and politicians, which are supportive of the LGBTQ+ community.
- 65) If I saw a Twitter post about an LGBTQ+ issue I would read further on the issue.
- 66) I would date an individual who identified as bisexual, pansexual, polysexual, or queer.
- 67) I have conflicting attitudes or beliefs about LGBTQ+ individuals.

- 68) It is wrong for courts to make child custody decisions based on a parent's sexual orientation.
- 69) I have close friends who are LGBTQ+.
- 70) A person's LGBTQ+ identity is an indicator of mental illness.
- 71) I am knowledgeable about the significance of the Stonewall Riot to the Gay Liberation Movement.
- 72) I would display a symbol of gay pride (pink triangle, rainbow, etc.) to show support of the LGBTQ+ community.
- 73) Gay people deserve to be discriminated against.
- 74) I am willing to be educated on LGBTQ+ issues.
- 75) I am familiar with the work of the National LGBTQ Task Force.
- 76) My parents would be disappointed if I came out as LGBTQ+.
- 77) I would become violent if an LGBTQ+ person flirted with me.
- 78) I would support my child if they were LGBTQ+.
- 79) I think LGBTQ+ individuals face workplace discrimination based on their sexual or gender identity.
- 80) I believe one public restroom should be available for use by both men and women to protect trans people from potential discrimination.
- 81) People who were born as females who identify as men are trying to achieve male privileges by tricking people.
- 82) The primary household I was raised in was disapproving of LGBTQ+ individuals.
- 83) If given the option to learn about LGBTQ+ identities I would not attend.
- 84) The primary household I was raised in was supportive of LGBTQ+ individuals.
- 85) Private businesses should be allowed to refuse services to LGBTQ+ individuals on the basis of their religious beliefs.
- 86) I don't care about LGBTQ+ issues.
- 87) I would like to see more LGBTQ+ storylines in movies and television programs.
- 88) LGBTQ+ individuals are more likely to be sex offenders.
- 89) I think LGBTQ+ individuals are discriminated against.

- 90) If I saw someone harassing an LGBTQ+ person, I would take steps to document and report the event.
- 91) I would go to a doctor who identified as LGBTQ+.
- 92) Health benefits should be available equally to same sex partners as to any other couple.
- 93) I think marriage should be legal for same sex couples.
- 94) I would go to my local polling venue to solely vote on legislation supportive of the LGBTQ+ community.
- 95) I would date an individual who identifies as transgender.
- 96) LGBTQ+ people should be allowed to adopt children.
- 97) Same-sex relationships may be healthy relationships.
- 98) Select the number 1 for this item.
- 99) I would be more disturbed seeing people who are attracted to the same sex showing affection toward each other publically more so than a heterosexual romantic couple.
- 100) I know the red equals sign is associated with the LGBTQ+ community
- 101) I believe LGB+ individuals can be healed or cured of their same-sex/gender attractions.
- 102) People who were born as males who identify as female are gay men trying to trick straight men into having sex with them.
- 103) People choose to experience same-sex attractions.
- 104) I have participated in organizations dedicated to LGBTQ+ and allied individuals.
- 105) Bisexual women are promiscuous.
- 106) Heterosexual romantic relationships are more likely to be healthier than same-sex romantic relationships.
- 107) I believe people who engage in sexual behaviors consistent with an LGBTQ+ identity are sinning when they do so.
- 108) I am knowledgeable about the history and mission of the PFLAG organization.
- 109) I believe discriminating against LGBTQ+ is not a form of prejudice because they choose to be that way.
- 110) I have had sexual fantasies about members of my same sex/gender.

## APPENDIX E

### IRB APPROVAL CERTIFICATE FOR LGB-KASH CFA STUDY (STUDY 1)

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
RESEARCH

March 12, 2014

Lisa Beck  
Department of Psychology  
College of Arts and Sciences  
Box 870348

Re: IRB # 14-OR-078, "Confirmatory Factor Analysis of the LGB-KASH"

Dear Ms. Beck:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent. Approval has been given under expedited review category 7 as outlined below:

*(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

Your application will expire on March 11, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,



338 Rose Administration Building  
Box 870117  
Tuscaloosa, Alabama 35687-0117  
(205) 885-8400  
(205) 840-0159  
TOLL FREE (877) 820-2016

## APPENDIX F

### IRB APPROVAL CERTIFICATE FOR FOCUS GROUPS (STUDY 2)

October 6, 2014

Office for Research

Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
R E S E A R C H

Lisa Beck  
Department of Psychology  
College of Arts and Sciences  
Box 870348

Re: IRB # 14-OR-337, "Focus Groups for Development of Measure of Attitudes toward the Queer Community"

Dear Ms. Beck:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

*(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

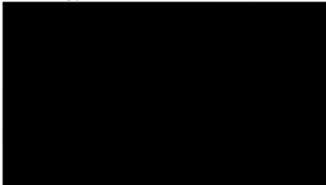
Your application will expire on October 5, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,



Office Administration Building  
Box 870 27  
Tuscaloosa, Alabama 35487-0227  
(205) 346-8464  
10012201 1/10/14  
TEL: (205) 845-9286

## APPENDIX G

### IRB APPROVAL CERTIFICATE FOR NEW MEASURE STUDY (STUDY 3)

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
R E S E A R C H

August 3, 2015

Lisa Beck  
Dept of Psychology  
College of Arts & Sciences  
Box 870348

Re: IRB # 15-OR-233, "Items for a New Measure of Attitudes toward the LGBTQ+ Community"

Dear Ms. Beck:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent. Approval has been given under expedited review category 7 as outlined below:

*(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

Your application will expire on July 30, 2016. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,



358 Rose Administration Building  
Box 870127  
Tuscaloosa, Alabama 35487-0127  
(205) 348-8461  
fax (205) 348-7189  
TOLL FREE (877) 820-3066