

Evaluating the Multidimensional Attitudes of Post-Secondary Agricultural Education Students Toward Lesbian and Gay Identities

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Abstract

Heterosexism, the belief that heterosexual identities are superior to homosexual identities, is deeply embedded in educational institutions, including school-based agricultural education (SBAE). Negligible research exists developing impactful practices for queer students in SBAE programs. This study sought to describe the attitudes of post-secondary agricultural education students toward lesbian and gay identities to identify potential barriers to the inclusion of queer students in SBAE. A total of 119 students from 21 higher education institutions across 12 states completed the Multidimensional Scale of Attitudes Toward Lesbians and Gay Men. The questionnaire evaluated attitudes related to rejection of proximity, pathologizing of homosexuality, modern heterosexism, and support. Findings from this study reveal students are relatively supportive of lesbian and gay individuals, but do not challenge heterosexist beliefs. Recommendations include further qualitative and intersectional investigations, greater curricular inclusion of queer experiences, and providing opportunities to challenge homophobic and heterosexist group norms.

Introduction and Literature Review

Estimations of individuals in the United States identifying as lesbian, gay, bisexual, transgender, queer/questioning, intersexual, asexual, or two-spirit (LGBTQIA+) has doubled to 7.1% since 2012 (Jones, 2022). Furthermore, nearly one in five Generation Z individuals identify as a member of the queer community, who are mostly school-age youth (Jones, 2022).

Educational institutions have been and continue to be designed for white, heterosexual, cisgender males (Case et al., 2012; National Association of School Psychologists, 2016). Until educational institutions

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are reconstructed, queer students cannot exist freely as societal norms of heterosexism are deeply engrained in the foundations of education (Case et al., 2012; Meyer, 2007; Walters & Hayes, 1998). While progress has been made toward acceptance in post-secondary settings (Woodford et al., 2018), queer youth overwhelmingly report hostile school environments (Kosciw et al., 2022). These changing dynamics of queer-identifying students is a source of concern, as educational institutions have historically lacked the resources to address queer students' unique developmental and emotional needs (Kosciw et al., 2014; Myers et al., 2020; Snively et al., 2004; Walters & Hayes, 1998).

Society in the United States depict homosexuality as inferior to heterosexuality through biased psychological research, religious agendas, and oppressive policies (Meyer, 2007). Together these system structures convey and uphold societal norms that embed themselves into educational spaces creating cultures that reflect homophobic and heteronormative ideals (Abbott et al., 2015; Bishop & McClellan, 2016; Flores, 2012; Forrest, 2006; Morrow & Gill, 2003; Ward & Schneider, 2009). Homophobia describes "irrationally negative attitudes toward homosexual people" (Morrow & Gill, 2003, p. 205) based upon "myths and stereotypes about same-sex relationships" (Snively et al., 2004, p. 62). Additionally, heteronormativity, or the belief that heterosexuality is the normal sexual orientation (Forrest, 2006), is closely linked to heterosexism, i.e., the belief that heterosexuality is not only normal but is also superior to homosexual identities (Morrow & Gill, 2003).

In cultures driven by homophobia and heteronormativity, students who identify as or are perceived to be in the queer community are at a higher risk of victimization and harassment (Aguirre et al., 2021; Barnett et al., 2018; Kosciw et al., 2013; Myers et al., 2020). Homophobic harassment and victimization can have detrimental impacts on students' mental and physical health, academic outcomes, and motivation (Kosciw et al., 2022; see also: Kosciw et al., 2013; Gegenfurtner & Gebhardt, 2017; Ward & Schneider, 2009). Specifically, students who experienced higher levels of victimization based on their sexual orientation, gender expression, or gender identity had lower self-esteem and higher levels of depression (Kosciw et al., 2022).

Expectations of gender expression are established through heteronormative hegemony, with masculine identities being privileged in educational spaces (Meyer, 2007). Male students tend to hold more negative views of homosexual individuals than female students (Forrest, 2006; Herek & McLemore, 2013; Kite & Bryant-Lees, 2016). Compared to female students, males exert homophobic attitudes more "overtly, aggressively, and frequently" (Forrest, 2006, p. 119).

Homophobic and heterosexist beliefs can vary among institutions and spaces. Religious convictions have been cited as influencing homophobic attitudes (Forrest, 2006; Herek & McLemore, 2013). Forrest (2006) states, "homophobia [is] strongly correlated with adherence to religious convictions which disapprove of sex and/or homosexuality" (p. 119). Specifically, individuals who are most likely to hold moral rejections toward gay and bisexual people and express homophobic attitudes tend to consider themselves as *highly religious* (Rosik et al., 2007).

Community setting and sexual orientation also influence an individual's development of homophobic attitudes (Kosciw et al., 2014; Herek & McLemore, 2013). Queer students enrolled in rural schools are at a higher risk of victimization and harassment when compared to those enrolled in urban and suburban schools (Kosciw et al., 2014). Schools in rural communities tend to reflect more conservative and religious ideologies of the community (Lee, 2019) as they are central to events and activities (as cited in Sorgen & Rogers, 2021). Teachers in rural areas are also less comfortable addressing the unique needs of queer students (Page, 2017).

School-based agricultural education (SBAE) has also struggled with accepting, including, and liberating marginalized students (Barajas et al., 2020; Elliot & Lambert, 2018; Vincent & Austin, 2021).

SBAE programs and the National FFA Organization have both been found to value and project White, cisgender male, heterosexual, and Christian ideals (Barajas, 2021; Barajas et al., 2020; Vincent & Austin, 2021). Moreover, students in SBAE programs have reported being uncomfortable with gay students enrolling in agriculture classes (Vincent & Austin, 2021). While not specific to queer identities, additional scholarship has found pre-service SBAE teachers show less concern for teaching multicultural student populations when compared to other teaching disciplines (Vincent et al., 2012, 2014).

Most SBAE teachers are educated and trained in working with diverse groups of students (Meyer, 2008), yet scholarship addressing the needs of queer youth in SBAE programs is limited (Murray et al., 2020). Teacher preparation programs currently lack inclusion of queer topics, identities, and histories in their curriculum, making it more likely that pre-service SBAE teachers will be ill-equipped to teach queer students (Meyer, 2008). Considering in-service teachers have reported personal biases toward queer students (Page, 2017), and SBAE pre-service teachers report little concern about teaching multicultural students (Vincent et al., 2012, 2014), it is imperative SBAE teacher preparation programs begin to acknowledge and address negative attitudes of pre-service teachers towards queer people.

Theoretical Framework

Subjective group dynamics (SGD) theory (Abrams et al., 2003) explains the development of homophobic attitudes and the challenges to combatting these attitudes. From the SGD perspective, individuals tend to deviate from in-group members who do not align with group norms (Abrams et al., 2003; 2022). In-group norms are developed through *descriptive* and *prescriptive* norms (Pinto et al., 2010). *Descriptive* norms of the group “specify the criteria by which individuals establish intergroup contrasts in social settings” (Pinto et al., 2010, p. 108). Conversely, *prescriptive* norms are the “requirements that in-group members must meet in order to promote a positive social identity” (Pinto et al., 2010, p. 108). In-group preference has been found to emerge in early childhood and strengthens as youth reach adolescence (Abrams et al., 2003). Children and adolescents develop attitudes that positively represent their own group over those who are not in their own group (Abrams et al., 2003).

Conforming to group norms can lead to prejudiced beliefs and attitudes, “in particular when fair and just reasoning would be in conflict with peer norms” (la Roi, 2020, p. 2230). In-group members face potential social exclusion and isolation when challenging group norms (la Roi, 2020; Mulvey et al., 2016). Therefore, adolescents may adapt their attitudes, rather than challenging group norms. When in-group attitudes are homophobic, “youth may condone or internalize homophobic attitudes if they perceive this to be an important norm within their peer group, even when they infer this from strategically applied homophobic behavior of their peers” (la Roi, 2020, p. 2231).

From this lens, groups who express homophobic attitudes can cause homophobic harassment of in-group members in an effort to maintain power (la Roi, 2020). Individuals who accept homosexuality may distance themselves from homophobic groups or conform to the homophobic culture of the group. In the context of this study, SGD can explain how being a member of traditionally homophobic groups (e.g., religious institutions, rural communities) impacts the development of homophobic attitudes.

This study is also guided through a secondary lens of Queer Theory, given its ability to challenge and disrupt the norms of educational institutions (Meyer, 2007). Queer Theory calls into question the way education organizes bodies of knowledge through “masculinity, femininity, sexuality, citizenship, nation, culture, literacy, consent, [and] legality” (Britzman, 1998, p. 212). From a queered perspective, researchers can deconstruct notions of normalcy and hegemony like heteronormativity (Dilley, 1999; Tierney & Dilley, 1998). Further, Queer Theory questions binary systems like heterosexual-homosexual and male-female (Tierney & Dilley, 1998). These systems of sexual orientation and gender binaries also create hierarchical systems privileging one identity over the other, which Queer Theory calls into question (Tierney & Dilley,

1998). From this perspective, authors operationalize the use of the word *queer* in this manuscript, when possible, to represent all identities related to queerness, without constricting to prescribed identity labels (Henderson, 2019).

Purpose and Objectives

This quantitative study was designed to generate knowledge on the attitudes post-secondary agricultural education students (e.g., pre-service teachers) hold regarding gay and lesbian individuals. Agricultural education teacher preparation programs can be better equipped to prepare more inclusive pre-service teachers when potential biases are identified. The objectives of this study were to:

1. Describe the multidimensional attitudes (rejection of proximity, pathologizing of homosexuality, modern heterosexism, support) of participants toward gay and lesbian individuals.
2. Describe how demographic groups of participants responded to each multidimensional attitude.
3. Determine trends in multidimensional attitudes of participants toward gay and lesbian individuals by demographic group.

Methodology

The analysis of participants' attitudes toward lesbian and gay identities was completed utilizing survey research methods. An online questionnaire developed by Gato et al. (2012; 2014) titled the *Multidimensional Scale of Attitudes Toward Lesbians and Gay Men* (MSATLGM) was utilized to collect data.

Post-secondary undergraduate agricultural education students, seeking a teaching licensure served as the population for this study. Data collection occurred through convenient sampling. The questionnaire was distributed to post-secondary agricultural education students at the host institution through a generated listserv. The researchers also contacted all post-secondary institutions through a generated listserv and requested the distribution of the questionnaire to all undergraduate agricultural education students. The authors followed guidance from Dillman et al.'s (2014) tailored design method through the listserv distribution to encourage maximum participation. A total of 21 institutions agreed to distribute the questionnaire to their students resulting in 119 responses from 12 states. However, due to incomplete responses from some participants, the total number of responses varied for each construct. The second part of the questionnaire collected demographic information, which resulted in incomplete responses from some participants.

Participants in this study reflect a population of post-secondary agricultural education students (Tingle et al., 2023) that is primarily female and rural, as most participants in this study were female (75.9%) and came from rural home residences (70.9%). Further descriptions of participants are provided in Table 1.

Table 1
Demographic Information of Participants (n = 119)

Group	<i>f</i>	%
Credit Standing		
Freshman	23	19.7
Sophomore	30	25.6
Junior	29	24.8
Senior	31	26.5
Graduate	4	3.4
Gender Identity		
Male	25	21.6
Female	88	75.9
Non-Binary	3	2.6
Home Residence		
Rural	83	70.9
Suburban	27	23.1
Urban	7	6.0
Post-Secondary Lessons on Queer Community		
Yes	74	63.2
No	43	36.8
Member of Queer Community		
Yes	15	12.8
No	102	87.2
Religious Ideology		
Not religious	11	9.5
Slightly religious	19	16.4
Moderately religious	41	35.3
Very religious	45	38.8

Note. Religious ideology was measured using a four-point Likert scale item ranging from 1 – not religious to 4 – very religious. Participants ($n = 116$) described themselves as *moderately religious* ($M = 3.03$, $SD = 0.97$).

The MSATLGM questionnaire was designed by Gato et al. (2012; 2014). Permission was obtained to use this instrument in August 2021 from the author. The 27-item questionnaire assessed four attitude constructs ranged from five to ten questions each. Responses for each item on the questionnaire were measured on a six-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The first construct, *Rejection of Proximity*, evaluated prejudiced ideologies of rejecting/avoiding lesbians and gay men and consisted of ten statements (e.g., “I would be hesitant to support lesbian and gay individuals for fear of being perceived as one”). The second construct, *Pathologizing of Homosexuality*, assessed attitudes that homosexuality is a mental disorder and consisted of five statements (e.g., “homosexuality is a psychological disease”). The third construct, *Modern Heterosexism*, assessed heterosexist ideologies of parenting, marriage, and visibility and consisted of seven statements (e.g., “I believe homosexual parents are as capable of being good parents as heterosexual parents”). The fourth construct, *Support*, measured attitudes that favored equal rights for and acceptance of lesbians and gay men, which consisted of five statements (e.g., “organizations who promote gay rights are necessary”). During the analysis Gato et al. (2014) recommended that six items be reversed coded in order to accurately reflect the attitude of the constructs. When reviewing the results, the lower the score is reflective of a higher level of homophobic behavior and heterosexism ideologies resulting in desire for social distancing.

Gato et al. (2012) deemed the questionnaire reliable for each of the four constructs based upon the Cronbach’s alpha as follows: (1) Rejection of proximity ($\alpha = 0.91$), (2) Support ($\alpha = 0.83$), (3) Modern

heterosexism ($\alpha = 0.79$), (4) Pathologizing of homosexuality ($\alpha = 0.86$). Post hoc results from the survey also deemed each construct as reliable based upon the following Cronbach's alpha: (1) Rejection of proximity ($\alpha = 0.94$), (2) Support ($\alpha = 0.92$), (3) Modern heterosexism ($\alpha = 0.89$), (4) Pathologizing of homosexuality ($\alpha = 0.90$). Additionally, a panel of four experts was assembled to review the survey. This panel included faculty with expertise in social science research, SBAE, multicultural education, queer studies, and survey distribution were used to evaluate face and content validity of the instrument. The research literature, expertise of the panel, and data generated from Gato et al. (2012) related to validity and reliability supported the use of the MSATLGM.

The researchers used IBM SPSS statistics version 28 to address the research objectives. Measures of central tendencies were utilized to determine differences and assist with identifying relationships. Per recommendation by Miller (1998), Pearson correlation (r) for interval-interval data, point-biserial correlation (r_{pb}) for interval-nominal data, and Spearman rank-correlation (r_s) for interval-ordinal data were utilized to address research objective number three. Correlation coefficient strength was interpreted using the scale from Davis (1971) of: negligible = .01-.09, low = .10-.29, moderate = .30-.49, substantial = .50-.69, very high = .70-.99, and perfect = 1.0. The researchers used descriptors Gato et al. (2012, 2014) developed to express the magnitude of each correlation.

Findings

Research objective one sought to describe the attitudes of participants toward gay and lesbian individuals by the constructs of the *Multidimensional Scale of Attitudes Toward Lesbians and Gay Men* (MSATLGM). Participants were found to report overall positive views of lesbian and gay identities given a mean score on the positive end of the scale for the *support* construct ($M = 3.92$, $SD = 1.42$). Additionally, participants showed positive views given mean scores on the negative end of the scale for rejection of proximity ($M = 2.16$, $SD = 1.18$), pathologizing of homosexuality ($M = 2.40$, $SD = 1.32$), and modern heterosexism ($M = 3.12$, $SD = 1.24$). Table 2 (below) contains the representative means from our sample.

Table 2
Participant Responses on the MSATLGM

Construct	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max
Rejection of Proximity	117	2.16	1.18	1.00	6.00
Pathologizing of Homosexuality	114	2.40	1.32	1.00	5.80
Modern Heterosexism	117	3.12	1.24	1.14	6.00
Support	116	3.92	1.42	1.00	6.00

Note. Responses were measured on a six-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

In research objective two, researchers sought to describe the attitudes of various demographic groups toward gay and lesbian individuals. Demographic groups shared overall positive attitudes given all scores for the *support* construct on the positive end of the scale. Additionally, mean responses to the *modern heterosexism* construct were the highest among the three negative constructs for each group of participants (i.e., participants agreed with heterosexist statements more than statements related to proximity or pathology). Further description of participants' responses related to objective two are listed in Table 3.

Table 3

Mean Construct Scores by Demographic Group

Demographic Group	Rejection of Proximity	Pathologizing of Homosexuality	Modern Heterosexism	Support
	M (SD)			
Credit Standing				
Freshman	2.23 (0.93)	2.50 (1.18)	3.35 (1.10)	3.97 (1.13)
Sophomore	2.17 (1.32)	2.33 (1.27)	3.13 (1.42)	4.04 (1.67)
Junior	2.43 (1.40)	2.98 (1.59)	3.29 (1.29)	3.60 (1.57)
Senior	1.98 (1.09)	2.10 (1.16)	2.93 (1.21)	3.90 (1.31)
Graduate/Prof	1.53 (0.78)	1.55 (0.44)	2.40 (0.21)	4.55 (1.02)
Gender Identity				
Male	2.44 (1.58)	2.68 (1.65)	3.35 (1.39)	3.46 (1.65)
Female	2.11 (1.05)	2.39 (1.21)	3.11 (1.20)	3.98 (1.34)
Non-Binary	1.17 (0.29)	1.00 (0.00)	1.62 (0.16)	5.40 (0.72)
Home Residency				
Rural	2.32 (1.29)	2.55 (1.38)	3.30 (1.29)	3.78 (1.43)
Suburban	1.84 (0.84)	2.14 (1.11)	2.77 (1.04)	4.14 (1.36)
Urban	1.64 (0.69)	2.03 (1.22)	2.55 (1.16)	4.40 (1.60)
Queer Lessons in Post-Secondary Program				
Yes	2.01 (1.01)	2.32 (1.19)	3.02 (1.20)	4.06 (1.32)
No	2.44 (1.43)	2.60 (1.50)	3.32 (1.32)	3.62 (1.57)
Queer Identity				
Yes	1.17 (2.32)	1.15 (0.27)	1.92 (0.42)	5.47 (0.52)
No	2.32 (1.20)	2.62 (1.30)	3.31 (1.23)	3.66 (1.37)
Religious Ideology				
Not Religious	1.63 (0.89)	1.81 (0.88)	2.53 (0.90)	4.58 (1.30)
Slightly Religious	1.64 (0.72)	1.89 (1.03)	2.50 (1.11)	4.39 (1.21)
Moderately Religious	2.01 (1.14)	2.21 (1.17)	2.97 (1.12)	4.11 (1.26)
Very Religious	2.71 (1.28)	3.04 (1.43)	3.73 (1.24)	3.31 (1.50)

Note. Responses were measured on a six-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Research objective three sought to determine the response trend of each demographic group by construct. Pearson correlation tests indicated a positive, significant relationship with moderate strength was found in religious ideology (e.g., *rejection of proximity*, *pathologizing of homosexuality*, *modern heterosexism*) along with a negative, significant relationship with moderate strength (e.g., *support*; Davis, 1971). In addition, Pearson correlation tests indicated a positive, significant relationship with moderate strength was found in queer identity (e.g., *rejection of proximity*, *pathologizing of homosexuality*, *modern heterosexism*) along with a negative, significant relationship with moderate strength (e.g., *support*; Davis, 1971). Further, point-biserial correlation tests found home residence to have a significant relationship to *rejection of proximity* ($r_{pb} = -.20, p < .05$) and *modern heterosexism* ($r_{pb} = -.21, p < .05$) with low strength (Davis, 1971). Finally, there was a positive, point-biserial correlation between the gender of participants and *support*, which was statistically significant ($r_{pb} = .21, p < .05$). Further description of correlations is depicted in Table 4.

Table 4
Correlations Between Demographic Groups and Constructs

	Rejection of Proximity	Pathologizing Homosexuality	Modern Heterosexism	Support
Religious Ideology ^a	0.35*	0.35*	0.39*	-0.32*
Credit Standing ^b	-0.11	-0.09	-0.13	-0.01
Gender Identity ^c	-0.16	-0.16	-0.16	0.21*
Home Residency ^c	-0.20*	-0.15	-0.21*	0.14
Queer Lessons ^c	0.17	0.10	0.12	-0.15
Queer Identity ^c	0.33*	0.38*	0.38*	-0.43*

Note. ^a = Pearson Correlation (r), ^b = Spearman's Correlation (r_s), ^c = Point-Biserial Correlation (r_{pb}), * = significant at the 0.05 level (2-tailed).

Discussion and Recommendations

Before discussing the findings, the authors want to acknowledge that while there was low response to the survey, the sample still represents the population of post-secondary agricultural education students. Specifically, institutions from all three American Association for Agricultural Education regions were represented. Additionally, our participants are reflective of the most recent demographics (e.g., gender, home residence) of post-secondary agricultural education students, according to the National Agricultural Education Supply and Demand Study (Smith et al., 2022). While our sample is representative, the authors caution that our conclusions may not describe the ideologies of every post-secondary agricultural education student population. These findings are limited to those who volunteered to participate from the 21 institutions represented. Additionally, this instrument was limited to exploring only two sexual orientations. Future research should include more comprehensive explorations of sexual orientations and gender identities (e.g., bisexual, pansexual, two-spirit, transgender, non-binary, gender non-conforming, gender fluid, etc.).

Research Objective One

Attitudes of the participants were described within the following four constructs: *rejection of proximity*, *pathologizing of homosexuality*, *modern heterosexism*, and *support*. For constructs depicting negative perceptions of homosexuality (*rejection of proximity*, *pathologizing of homosexuality*, *modern heterosexism*), lower mean scores represent more supportive attitudes (i.e., participants disagreed with negative attitudes). Conversely, higher scores on the *support* construct represent accepting attitudes (i.e., participants agreed with supportive statements). Findings from this study provide the SBAE teacher preparation profession with a new understanding of attitudes held by participants toward homosexuality and the challenges to overcoming heterosexist attitudes. Additionally, the findings from this work support current literature related to homosexual prejudice, teacher attitudes toward the queer community, and the theoretical framework.

Overall, the participants held positive perceptions of homosexuality based upon an average response of “agree” to statements related to *support*. This finding reinforces most participants supported inclusive curriculum and gay liberation movements. Students also showed accepting attitudes in the dimensions of *rejection of proximity* and *pathologizing of homosexuality*. Participants report being comfortable in the presence of lesbians and gay men (*rejection of proximity*) and believe that homosexuality is an identity rather than mental disorder (*pathologizing of homosexuality*) given an average of “disagree” for these constructs. At the same time, *modern heterosexism* scores contained the highest mean among the constructs assessing negative attitudes toward lesbians and gay men. The *modern heterosexism* mean tells

researchers that participants do not want queer identities to challenge heteronormative and heterosexual beliefs.

Aggregate data among all constructs are potential evidence of internal dissonance experienced by participants as they predominantly disagree with pathological, exclusionary identities towards gay men and lesbian women, while still maintaining attitudes upholding heteronormativity. The measures of central tendency in objective one also depicts large dissonance in the participants in the standard deviations and range of responses. Some individual's responses across the constructs were highly polarized as their scores reflected both the minimum and maximum of the multidimensional scale.

Subjective Group Dynamics (SGD) theory (Abrams et al., 2003) can help explain this finding as, *modern heterosexism* shows the largest threat to in-group norms of most participants, given 87.2% of participants do not identify in the queer community. Given the threat to in-group norms, members of the group who are heterosexual and cisgender are more likely to conform to heteronormative and heterosexual group ideals, rather than challenge the group norms for fear of social exclusion (laRoi et al., 2020; Mulvey et al., 2016). It is challenging to create a one-size-fits-all recommendation considering every group is different and has unique dynamics. However, our profession must begin to identify and acknowledge norms and ideals that are held in agricultural education that can be exclusionary and heterosexist. Practitioners should reevaluate assumptions held of masculinity, femininity, and sexuality in their curricula and daily language to further the inclusion of queer people (Britzman, 1998).

Future research should explore the dissonance depicted among these participants to further understand the discrepancy. Qualitative inquiry could help support the findings related to overall attitudes toward lesbian and gay identities. While this data provides a useful tool for future scholars to describe the population, qualitative questioning and interviews provide a different insight into the individuals' beliefs.

Research Objectives Two and Three

Each demographic group in this study reported the least accepting attitudes related to heteronormative and heterosexual beliefs. This finding supports SGD theory's assumptions toward challenging group norms using out-group beliefs (Abrams et al., 2003). Additionally, researchers attribute the greater rejection of statements related to proximity and pathology to societal progress of accepting visibility and homosexuality as identity (Kite & Bryant-Lees, 2016), yet still retaining heteronormative hegemony.

Several trends were found among the groups of participants. Findings from this study revealed a significant and moderate strength relationship between the participant's faith and each construct. In this study, the more religious a participant identified themselves, the more likely they were to respond with attitudes that reflect: (a) desires for physical distancing and reduction of visibility, (b) beliefs that homosexuality is a mental disorder, (c) heterosexist ideologies, and (d) lack of support for homosexual identities. Individuals who responded as not religious held the most accepting views of homosexuality. Most of the participants (90.5%) self-identified as religious, suggesting most participants subscribe to religious group norms at some level.

This finding supports previous literature that suggests linkages between religious ideology and heterosexist/homophobic ideals (Forrest, 2006; Herek & McLemore, 2013; Rosik et al., 2007). Following SGD assumptions, authors further attribute this finding to the perceived social consequences of challenging group norms (la Roi, 2020). Given a strong linkage between religion and rural communities (Lee, 2019), it is unsurprising most participants reported religious convictions. To best engage in the prevention and intervention of heterosexist beliefs from religious perspectives, the authors align with recommendations from Rosik et al. (2007) which suggest emphasizing biblical passages centered around "kindness, patience,

humility, love, and self-control” (p. 16) when engaging with gay and lesbian individuals. Approaching difficult conversations about the intersections of faith and sexuality/gender identity with sensitivity and kindness can decrease heterosexist discourse and begin to reconcile in-group and out-group differences. The authors further recommend providing avenues for students to engage in these challenging discussions related to the intersection of religious beliefs and queerness throughout post-secondary programming. By allowing students to evaluate in-group and out-group members beliefs, in-group members (i.e., religious individuals) can begin to question the foundation of their norms.

Participants who identified in the queer community were more likely to reject statements of homophobia (*rejection of proximity, pathologizing of homosexuality, modern heterosexism*) and were more likely to support statements of acceptance (*support*) than participants who did not identify in the queer community. This finding can be attributed to participants who identify in this community sharing group membership that represents the values and attitudes being assessed. Similarly, these findings are seen in participants who reported identifying as non-binary. The non-binary individuals in this sample mostly agreed on their views of homosexuality, given their strong disagreement with negative attitudes and strong agreement with supporting statements. The findings of non-binary individuals’ perspectives further support the notion of a queered perspective and views of in-group members in the queer community. Although this finding is limited as only three respondents identified as non-binary, it is important to acknowledge there are individuals in agricultural education who identify with diverse gender identities.

Female respondents ($n = 88$), responded with more accepting beliefs than male respondents ($n = 25$) for all survey constructs. Although only significant in the relationship to the *support* construct, this finding supports previous literature that suggests feminine individuals tend to have more accepting views of the queer community (Forrest, 2006). However, as there was only statistical significance within the *support* statements, male and female respondents shared similar views among most of the survey. Aligning with previous works (Forrest, 2006; Kite & Bryant-Lees, 2016), researchers attributed this finding to the perceived social consequences of masculine identities in supporting homosexual individuals. Recommendations for teachers and scholars from this finding include challenging heteronormative gender expectations in their classrooms. Masculinity is directly tied to heteronormative and binary gender expectations (Meyer, 2007), which is supported in this finding. As stated previously, it is important for dominant in-group members to begin to reevaluate in-group norms to create a more inclusive group.

Home residency also was found to have a significant relationship with *rejection of proximity* and *modern heterosexism*, with low strength. Suburban and urban students were found to hold more accepting views of homosexuality than rural students which supports previous work (Kosciw et al., 2014; Lee, 2019). Again, this can be attributed to most of the sample responding as coming from a rural home (70.9%) and likely identifying with in-group norms of rural settings, which is reflective of Subjective Group Norms (Abrams et al., 2003). However, this finding is limited as participants were able to self-define the context of rural, suburban, and urban home residency. Future works should provide set parameters for each community to help strengthen the influence of community setting.

Conclusions

Asset-based and normalized depictions of queer identities remain a low priority across research and practice in post-secondary education programs, especially in school-based agricultural education (Murray et al, 2020). The findings from this quantitative study are useful for both guiding future research and practice because of the clear sources of bias depicted among students in SBAE teacher preparation programs. Scholars and educators in SBAE teacher preparation should seek innovative, asset-based approaches in research and practice to address the biases depicted in this study. The participants in this study provided data which is insightful to the complexities of attitudes related to gay and lesbian people,

and in light of these findings there is all the more reason to ensure the development of pre-service teachers includes curriculum to navigate biases related to student diversity.

While historically, the profession has posited that students lack the readiness for accepting DEI concepts, while this study debunks such arguments. Nevertheless, students are accepting up until the point that queer identities threaten to overpower heteronormative identities. Similarly, Bell's (1980) interest convergence divergence theory is reflective of similar findings. Although in regard to race rather than homosexuality, Bell found that when fighting for racial justice, the majority population, in this case white people, only are successful when their aim aligns with their own needs and desires.

Future scholarship should utilize intersectional frameworks to consider how each of these groups and identities influence views of queerness. Intersectional research would also account for the unique experiences of multiply marginalized individuals. None of these identities of participants exist on their own, each are influenced by other identities of the participant and therefore we cannot explain the overall attitudes present by just one demographic. Intersectional questions and analyses would provide further insight into the experiences that developed the attitudes of these participants. This work serves as one of the first queer studies in SBAE and provides an initial understanding of post-secondary agricultural education students' attitudes. Conclusions from this study can help teacher educators and scholars in SBAE to acknowledge sources of bias in their students better.

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