

LGB-KASH and Shortened Workplace Incivility Scale Scores Among Athletic Trainers: A Pilot Study

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Abstract

Current literature suggests that Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual (LGBTQIA) athletic trainers encounter difficulties in their workplace given their status as minorities. Previous studies have examined the attitudes of athletic trainers towards LGBTQIA patients but have not looked into attitudes of athletic trainers and coaches towards LGBTQIA athletic trainers. However, in order to effectively assess these attitudes, it is important to have a valid and reliable instrument to do so. Therefore, the purpose of this study was to describe the scores on the LGB-KASH and Shortened Workplace Incivility Scale among credentialed athletic trainers in the state of Texas. A total of 42 credentialed athletic trainers participated in this study (age= 33 ± 10 years, certified experience = 11 ± 10 years). Participants were sent an electronic survey by email that gathered data on demographics, LGB-KASH scores, and Shortened Workplace Incivility Scale scores. Measures of central tendency (means, standard deviations, frequencies) were calculated for all survey items. Pearson Correlations were used to assess correlations between age, years of experiences, all subcategories of the LGB-KASH, and the Shortened Workplace Incivility Scale. An independent samples t-test was performed to determine differences between responses from heterosexual participants and gay, lesbian, and bisexual participants. Data analysis yielded several significant correlations. There was a low positive correlation between age and the Hate subcategory, and a low negative correlation between age and the Civil Rights subcategory. There was also a high negative correlation between the Hate subcategory and the Civil Rights subcategory. There were also significant differences between groups in the Knowledge, Religious Conflicts, and Internalized Affirmation subcategories. There were no significant differences in the Hate or Civil Rights subcategories, or on the Shortened Workplace Incivility Scale. Future research should examine the causes of the correlations described in this pilot study. Future research should also be directed towards examining the impact of lack of education and knowledge of LGBTQIA individuals and the issues they encounter on feelings of discomfort and self-consciousness.

Introduction

It has been documented in the literature that Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual (LGBTQIA) athletic trainers encounter difficulties in their workplace given their status as minorities [1,2]. To date, there has been little research conducted to investigate the challenges and concerns of LGBTQIA allied healthcare professionals, in particular athletic trainers. Previous research has been conducted that suggests that patients generally have a positive opinion of athletic trainers who identified as LGBTQ [1]. Studies have also explored the perceptions of athletic trainers regarding LGBTQIA patients [3-5]. However, there does not appear to be any published research that would reflect the opinions of athletic trainers on fellow athletic trainers who are LGBTQIA.

One validated measure of the knowledge and attitudes of individuals toward LGBTQIA persons is the Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Homosexuals (LGB-KASH) [6,7]. First developed in 2005 through the collective findings of four studies, the LGB-KASH utilizes a series of questions to provide a measure of the knowledge and attitudes held by individuals regarding lesbians, gays, and bisexuals [7]. Further research was conducted in 2019 to further validate the use of this instrument as a reliable measure [6].

Another instrument that has the potential to help describe and assess the experiences and environments LGBTQIA athletic trainers work in is the Workplace Incivility Scale. This scale has been used across multiple industries and across the globe to determine whether or not an individual was working in a setting that would allow them to flourish [8-11]. In 2018, a shortened version of this scale was created and validated in order to create a more concise measure of incivility in the workplace [8].

While both the LGB-KASH and Workplace Incivility Scale have been validated across multiple populations, there does not appear to be any previous studies utilizing these instruments with an athletic training population. Prior to a larger scale study being conducted on athletic trainers' knowledge and attitude towards LGBTQIA athletic trainers, it would be worthwhile to conduct a pilot study

of a smaller sampling of the target population. Thus, the purpose of this pilot study was to describe the scores on the LGB-KASH and Shortened Workplace Incivility Scale among credentialed athletic trainers in the state of Texas. A secondary purpose was to examine the difference in scores between heterosexual athletic trainers and gay, lesbian, and bisexual athletic trainers.

Methods

Design

This study was conducted using a cross-sectional design using an electronic survey for data collection.

Participants

Participants were recruited for this study by emailing the athletic training staffs at NCAA Division I, II, and III institutions, and emailing the membership database for the East Texas Athletic Trainers' Association. A total of 42 athletic trainers opened and completed the survey (age= 33 ± 10 years, certified experience = 11 ± 10 years). Demographic information for the participants is presented in Table 1. All participants were informed of the survey's purpose and aims at the start of the survey. Informed consent was then obtained based on the protocol approved by the University of Texas at Tyler Institutional Review Board.

Table 1: Totals and percentage for participant demographic information.

Demographic Factor	Criteria	Responses
Gender	Male	20, 47.6%
	Female	22, 52.4%
Employment Setting	High School/Middle School	8, 19.0%
	College/University	27, 64.3%
	Clinic/Hospital	1, 2.4%
	Emerging Settings (Military, Industrial, etc.)	5, 11.9%
	Physician's Assistant	1, 2.4%
Are you Hispanic/Latino(a)?	Yes	10, 23.8%
	No	32, 76.2%
What Race do you consider yourself?	White	32, 76.2%
	Black or African American	2, 4.8%
	Asian	1, 2.4%
	Native Hawaiian or Pacific Islander	1, 2.4%
	Other	3, 7.1%
	2 or more races	2, 4.8%
	Prefer not to answer	1, 2.4%
What is your sexual orientation?	Straight/Heterosexual	32, 76.2%
	Gay/Lesbian	5, 11.9%
	Bisexual	5, 11.9%

Data collection

An email was sent to the athletic trainers in the East Texas Athletic Trainers' Association membership database, and to athletic trainers in the state of Texas whose contact information was publicly available on their organization's website. The email invited all prospective participants to participate in an electronic survey via a link from a web-based server (Qualtrics Inc., Provo, UT) in July 2021. The invitation contained information about the authors, the purpose and aims of the study, and assurances that the participants could quit the survey at any time. A follow-up email

was sent to program directors a week after the initial email, and the survey was left open for a week prior to the survey being closed for statistical analysis to begin.

Instrument

Following the informed consent and demographics section, the instrument contained questions taken from the LGB-KASH to gather information regarding the participants' knowledge and attitudes toward LGBTQIA persons. Participants were asked to answer 28 questions on a scale of 1 "Very uncharacteristic of me or my views" to 6 "Very characteristic of me or my views". Participants were

then asked to answer the four questions taken from the Shortened Workplace Incivility Scale on a scale of 1 "Never" to 5 "Many Times". The responses were broken down into subcategories described in Table 2.

Table 2: LGB-KASH subcategories and descriptions.

Subcategory	Description
Hate	Higher scores indicate attitudes about avoidance, self-consciousness, hatred, and violence toward LGB individuals.
Knowledge	Higher scores indicate basic knowledge about the history, symbols, and organizations related to the LGB community.
Civil Rights	Higher scores indicate beliefs about the civil rights of LGB individuals with respect to marriage, child rearing, health care, and insurance benefits.
Religious Conflict	Higher scores indicate conflictual beliefs and ambivalent homonegativity with respect to LGB individuals, often of a religious nature.
Internalized Affirmation	Higher scores indicate a willingness to engage in proactive social activism for LGB issues and internalized sense of comfort with same-sex attractions.

Ultimately, the survey consisted of 41 questions. These questions included: one question regarding informed consent, five multiple-choice and two fill in the blank questions on demographics, 28 multiple choice questions from the LGB-KASH, and four multiple choice questions from the Shortened Workplace Incivility Scale.

Statistical analysis

Data were downloaded and analyzed using commercially available statistics software (SPSS Version 27, IBM, Armonk, NY). A total of 42 completed responses were included in the data analysis. Measures of central tendency (means, standard deviations, frequencies) were calculated where appropriate. Pearson Correlations were used to assess correlations between age, years of experiences, all subcategories of the LGB-KASH, and the Shortened Workplace Incivility Scale. An independent samples

t-test was performed to assess differences between responses from heterosexual participants and gay, lesbian, and bisexual participants.

Results

LGB-KASH scores

Average scores and standard deviations for scores on LGB-KASH subcategories are included in Table 3. When looking at the responses of all participants, several correlations were statistically significant. Significant correlations from the entirety of the participant population are included in Table 4. Significant correlations for heterosexual participants are included in Table 5. Significant correlations for gay, lesbian, and bisexual participants are included in Table 6.

Table 3: LGB-KASH scores.

Subcategory	Heterosexual (n=32)	Gay/Lesbian/Bisexual (n=10)	All Participants (n=42)
Hate	1.95 ± 0.79	1.73 ± 0.81	1.90 ± 0.79
Knowledge	2.19 ± 0.92	3.64 ± 1.28	2.54 ± 1.18
Civil Rights	4.13 ± 1.14	4.34 ± 1.43	4.18 ± 1.20
Religious Conflicts	3.32 ± 1.46	1.12 ± 1.46	2.79 ± 1.16
Internalized Affirmation	1.89 ± 0.97	25.28 ± 1.34	3.79 ± 1.65

Table 4: Significant correlations in all participants

Factors	Correlation	Strength
Age and Hate	$r(40) = .341, p = .027$	Low positive
Age and Civil Rights	$r(40) = -.340, p = .027$	Low negative
Years Experience and Hate	$r(40) = .385, p = .011$	Low positive
Years Experience and Civil Rights	$r(40) = -.369, p = .016$	Low negative
Years Experience and Religious Conflicts	$r(40) = .313, p = .044$	Low positive
Hate and Civil Rights	$r(40) = -.745, p < .001$	High negative
Hate and Religious Conflicts	$r(40) = .506, p = .001$	Moderate positive
Hate and Internalized Affirmation	$r(40) = -.354, p = .021$	Low negative
Knowledge and Religious Conflicts	$r(40) = -.435, p = .004$	Low negative
Knowledge and Internalized Affirmation	$r(40) = .625, p < .001$	Moderate positive
Civil Rights and Religious Conflicts	$r(40) = -.560, p < .001$	Moderate negative
Civil Rights and Internalized Affirmation	$r(40) = .528, p < .001$	Moderate positive
Religious Conflicts and Internalized Affirmation	$r(40) = -.790, p < .001$	High negative

Table 5: Significant correlations in heterosexual participants

Factors	Correlation	Strength
Age and Hate	$r(30) = .443, p = .011$	Low positive
Age and Civil Rights	$r(30) = -.458, p = .008$	Low negative
Age and Religious Conflicts	$r(30) = .382, p = .031$	Low positive
Years Experience and Hate	$r(30) = .482, p = .006$	Low positive
Years Exp and Civil Rights	$r(30) = -.498, p = .004$	Low negative
Years Exp and Religious Conflicts	$r(30) = .373, p = .035$	Low positive
Hate and Civil Rights	$r(30) = -.693, p < .001$	Moderate negative
Hate and Religious Conflicts	$r(30) = .373, p < .035$	Low positive
Knowledge and Internalized Affirmation	$r(30) = .515, p = .003$	Moderate positive
Civil Rights and Religious Conflicts	$r(30) = -.481, p = .005$	Low negative
Civil Rights and Internalized Affirmation	$r(30) = -.744, p < .001$	High positive

Table 6: Significant correlations in lesbian, gay, and bisexual participants.

Factors	Correlation	Strength
Hate and Civil Rights	$r(8) = -.912, p < .001$	Very high negative
Hate and Religious Conflict	$r(8) = .900, p < .001$	Very high positive
Hate and Internalized Affirmation	$r(8) = -.957, p < .001$	Very high negative
Civil Rights and Religious Conflicts	$r(8) = -.799, p = .008$	High negative
Civil Rights and Internalized Affirmation	$r(8) = .936, p < .001$	Very high positive
Religious Conflicts and Internalized Affirmation	$r(8) = -.840, p = .002$	High negative

When assessing differences in scores on the LGB-KASH between heterosexual participants and gay, lesbian, and bisexual participants, there was a significant difference in the Knowledge subcategory (Heterosexual = 2.19 ± 0.92 , LGB = 3.64 ± 1.28), $t(40) = -3.95, p < .001$. A significant difference was also found in the Religious Conflicts subcategory (Heterosexual = 3.02 ± 1.08 , LGB = 2.03 ± 1.18 , $t(40) = 1.12, p = .016$). There was also a significant difference in the Internalized Affirmation subcategory (Heterosexual = 3.32 ± 1.46 , LGB = 5.28 ± 1.34), $t(40) = -3.78, p = .001$. There were no other subcategories that had a significant difference between groups.

Shortened workplace incivility scale

On the Shortened Workplace Incivility Scale, there were no correlations found between age and years' experience and scores on the scale. Furthermore, there were no significant differences found between heterosexual participants (1.89 ± 0.97), and gay, lesbian, and bisexual participants (2.03 ± 1.03).

Discussion

The purpose of this pilot study was to describe the scores on the LGB-KASH and Shortened Workplace Incivility Scale among credentialed athletic trainers in the state of Texas. A secondary purpose was to examine the difference in scores between heterosexual athletic trainers and gay, lesbian, and bisexual athletic trainers.

Our findings indicated several significant correlations between age, years of experience, and different subcategories of the LGB-

KASH. There was a low positive correlation between age and the Hate subcategory, and a low negative correlation between age and the Civil Rights subcategory. This indicated that older athletic trainers might be more likely to be self-conscious around LGB individuals and less likely to overtly support the civil rights of LGB individuals. There was also a high negative correlation between the Hate subcategory and the Civil Rights subcategory. This indicated that individuals who were less self-conscious around LGB individuals were more likely to support the civil rights of LGB individuals overtly. A moderate positive correlation between the Knowledge and Internalized Affirmation subcategories indicated that individuals with more knowledge about LGB individuals and the issues they face were more likely to engage in social activism activities designed to advocate for LGB individuals. Lastly, there was a high negative correlation between the Religious Conflicts and Internalized Affirmation subcategories. This indicated that individuals who were conflicted about their feelings and beliefs toward LGB individuals based on their religion or faith were less likely to engage in social activism activities designed to advocate for LGB individuals.

When participants were separated by sexual orientation, the high negative correlation between the Civil Rights and Internalized Affirmation subcategories remained among heterosexual athletic trainers. However, this same correlation did not exist among gay, lesbian, and bisexual athletic trainers. When compared between groups, the only subcategories with significant differences were Knowledge, Religious Conflicts, and Internalized Affirmation. This suggested that gay, lesbian, and bisexual athletic trainers were

more likely to be knowledgeable and comfortable with LGBTQIA issues. Furthermore, the results suggested that heterosexual athletic trainers were more likely to experience conflicts with their feelings and beliefs toward LGB individuals based on their religious beliefs.

Previous research has indicated that athletic trainers have a generally positive view of LGBTQIA patients and providing care for them [3-5]. These studies also suggested that while athletic trainers may be willing to provide care for LGBTQIA patients, they may need to improve their knowledge of healthcare issues specific to LGBTQIA patients [3-5]. The findings of this study regarding LGBTQIA knowledge differences between heterosexual and gay, lesbian, and bisexual athletic trainers appears to support these previous studies.

When examining the environments at the workplaces of the athletic trainers surveyed, there was no significant difference between heterosexual athletic trainers and gay, lesbian, and bisexual athletic trainers on the Shortened Workplace Incivility Scale. Furthermore, the scores on the Shortened Workplace Incivility Scale did not yield mean scores above the midpoint of the scale. This suggested athletic trainers surveyed generally did not encounter incivility in their workplace.

While correlation does not necessarily mean causation, these findings may suggest a need to revisit the amount of information on LGBTQIA patients that is required within athletic training curriculums. Athletic training educators should also consider including screening tools for their athletic training students to identify any potential knowledge gaps related to all patient populations they may encounter. Even if athletic training education programs are able to include more information about healthcare issues for LGBTQIA patients, continuing education interventions should be considered for refreshing knowledge of the definition, issues, and ways to support LGBTQIA patients and peers. When these continuing education interventions are created, they should go through frequent re-evaluation to make sure that they effectively improve and refresh knowledge of LGBTQIA patient populations and peers.

A possible limitation of this study was the number of participants. However, this is a similar limitation that other survey-based studies on athletic trainers have encountered and may affect the generalizability of the results when looking to analyze across the profession [12-14]. Another limitation was that the data gathered did not allow the authors to determine causation for the findings. When performing this pilot study, the authors were focused on determining correlations that warranted further examination in future studies.

To the authors' knowledge, this is the first study to use the LGB-KASH and Shortened Workplace Incivility Scale with athletic trainers. To this end, future research should examine the causes of the correlations described in this pilot study. Future research should also be directed towards examining the impact of lack of

education and knowledge of LGBTQIA individuals and the issues they encounter on feelings of discomfort and self-consciousness.

Conclusion

In conclusion, this study did not find significant differences between heterosexual athletic trainers and gay, lesbian, and bisexual athletic trainers regarding the Hate and Civil Rights subcategories on the LGB-KASH. There were, however, significant differences regarding the Knowledge, Religious Conflicts, and Internalized Affirmation subcategories. Neither heterosexual athletic trainers nor gay, lesbian, and bisexual athletic trainers appeared to experience a high degree of incivility in their workplace. Even though previous studies have suggested the majority of athletic trainers generally have positive attitudes toward LGBTQIA patients, there is still a need for further examination of the attitudes of athletic trainers and other stakeholders toward LGBTQIA athletic trainers.

References

1. Crossway A, Rogers SM, Nye EA, Games KE, Eberman LE (2019) Lesbian, gay, bisexual, transgender, and queer athletic trainers: Collegiate Student-Athletes' Perceptions. *Journal of Athletic Training* 54(3): 324-333.
2. Darr B, Kibbey T (2016) Pronouns and thoughts on neutrality: Gender concerns in modern grammar. *Pursuit* 7(1): 71-84.
3. Nye EA, Crossway A, Rogers SM, Games KE, Eberman LE (2019) Lesbian, gay, bisexual, transgender, and queer patients: collegiate athletic trainers' perceptions. *Journal of Athletic Training* 54(3): 334-344.
4. Nye EA, Walen DR, Rogers SM, Crossway AK, Winkelmann ZK, et al. (2019) Athletic trainers' perceptions about collegiate transgender student-athletes' unfair advantage in sport participation. *Journal of Athletic Training* 54(6S): S72.
5. Walen DR, Nye AE, Rogers SM, Crossway AK, Winkelmann ZK, et al. (2019) Athletic trainers' perceived competence and educational influences in their ability to care for collegiate transgender student-athletes. *Journal of Athletic Training* 54(6S): S72-S73.
6. Raju D, Beck L, Azuero A, Azuero C, Vance D, et al. (2019) A comprehensive psychometric examination of the Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Heterosexuals (LGB-KASH). *J Homosex* 66(8): 1104-1125.
7. Worthington RL, Becker-Schutte AM, Dillon FR (2005) Development, reliability, and validity of the Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Heterosexuals (LGB-KASH). *Journal of Counseling Psychology* 52(1): 104-118.
8. Di Marco D, Martinez-Corts I, Arenas A, Gamero N (2018) Spanish validation of the shorter version of the workplace incivility scale: An employment status invariant measure. *Front Psychol* 9: 959.
9. Tarihi G, Tarihi K (2018) Workplace incivility: Scale development and validation. *Third Sector Social Economic Review* 53(2): 433-449.
10. Jimenez P, Bregenzer A, Leiter M, Magley V (2018) Psychometric properties of the German version of the workplace incivility scale and the instigated workplace incivility scale. *Swiss Journal of Psychology* 77(4): 159-172.
11. Smidt O, de Beer LT, Brink L, Leiter MP (2016) The validation of a workplace incivility scale within the South African banking industry. *South African Journal of Industrial Psychology* 42(1): a1316.
12. Cage SA, Warner BJ, Gallegos DM, Goza JP, Winkelmann ZK (2020) Perceived and actual knowledge of cupping therapy concepts among

- athletic trainers in the state of Texas. *Research & Investigations in Sports Medicine* 6(4): 538-542.
13. Yang CW, Yen ZS, McGowan JE, Chen HC, Chiang WC, et al (2012) A systematic review of retention of adult advanced life support knowledge and skills in healthcare providers. *Resuscitation* 83(9): 1055-1060.
14. Schellhase K, Plant J, Rothschild C (2015) Collegiate athletic trainers' perceived and actual knowledge of therapeutic ultrasound concepts. *International Journal of Athletic Therapy and Training* 20(5): 43-53.

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