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Abstract

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Keywords

Cultural competency, sexual orientation, gender, occupational therapy, LGBT

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Survey of Occupational Therapy Students' Attitudes, Knowledge and Preparedness for Treating LGBT Clients

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ABSTRACT

Members of lesbian, gay, bisexual and transsexual (LGBT) populations are sexual and gender minorities and are at risk for significant health disparities compared to heterosexual populations. This study examined occupational therapy students' and recent graduates' (n=435) basic knowledge, clinical preparedness and attitudinal awareness for working with LGBT clients using the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS; Bidell, 2017). Students in the study generally rated themselves low (between three and four on a seven-point scale) on questions related to clinical preparedness, indicating they felt they did not have adequate training relative to working with LGBT clients. Both basic knowledge and clinical preparedness for working with LGBT populations was positively influenced by hours of curriculum content related to sexual minority populations. However, 21% (n=91) of participants reported the topic was not covered in the curriculum, while an additional 68% (n=295) reported less than two hours of time developed to LGBT topics. It is suggested that education focus on terminology, health disparities, an examination of personal and societal attitudes that affect outcomes, important health and psychosocial needs, culturally sensitive communication, creating inclusive practice setting and clinical practice and communication unique to this population.

INTRODUCTION

Significant health disparities have been identified for persons who identify as sexual and gender minorities compared to the heterosexual population, highlighting the need for research and education to enhance care for these individuals. In contrast to heterosexual population, persons who identify as sexual (LGB) and gender (transgender, gender queer, gender non-conforming, other) minorities experience an

increased prevalence of chronic health conditions, mental health issues, substance abuse, and suicide (Ricca, Wahlskog, & Dewey Bergren, 2018). The reasons for these health disparities are complex, however, using the social ecological model, the Institute of Medicine (IOM) characterized personal and structural barriers to quality healthcare as contributing factors (IOM, 2011). Personal-level barriers are created by overt, felt, and internalized stigma on the part of LGBT individuals, and bias on the part of healthcare providers. Structural barriers include lack of access to care, and lack of knowledge and skills by healthcare providers (IOM, 2011).

The World Federation of Occupational Therapists (WFOT) and member associations recognize the role of the profession to advocate to eliminate health disparities, and cite the need for implementing and evaluating curricula that teach occupational therapy students to effectively and respectfully care for all clients (Braveman, Gupta, & Padilla, 2013; WFOT, 2016). While there appears to be consensus about the importance of improved health professional education about diverse cultures, including persons who identify as sexual and gender minorities, the amount and type of training varies widely between programs, with some programs having little or no special training while others have detailed modules.

Occupational therapy has, at its core, values for compassionate care, fairness, respect, discretion, integrity, diverse and inclusive learning in the classroom and beyond, and continuous advocacy for society's occupational needs (American Occupational Therapy Association [AOTA], 2015, 2018; WFOT, 2016). The AOTA Code of Ethics value for equality refers to "treating all people impartially and free of bias," while the value for justice states that diverse communities are organized such that "all members can function, flourish, and live a satisfactory life" (AOTA, 2015). Education standards established by the Accreditation Council for Occupational Therapy Education (ACOTE) require that all graduates from occupational therapy programs acquire foundational knowledge related to diversity including appreciation of the role of diversity factors in meeting the needs of persons, groups, and populations; social determinants of health, and consideration of cultural and contextual factors of clients during assessment and intervention planning (ACOTE, 2018).

The recognition that education regarding diversity is needed in the occupational therapy curriculum is not new (Pope-Davis, Prieto, Whitaker, & Pope-Davis, 1993), however, each institution varies in content and the amount of time spent on diversity topics. Curricula often emphasize cultural and racial diversity more strongly than sexual and gender diversity (Ching, Contreras, Dimalanta, Duran, & Freeman, 2018; Donoso Brown, Muñoz, & Powell, 2011). Barriers to education about sexual and gender minorities include lack of faculty expertise, faculty preconceptions and biases, limited exposure in the curriculum, and time, particularly for experiential learning (Donoso Brown et al., 2011).

The American Occupational Therapy Association is reportedly developing documents related to teaching cultural competence and humility, however, it is not known whether the recommendations will address specific populations or general principles relative to

the topic of cultural competence and humility (AOTA, 2019). Other professional organizations suggest a minimum level of training that includes self-awareness of personal and societal LGBT biases and stigma; knowledge about healthcare and psychosocial issues; and clinical skills grounded in ethics and standards of care (Eckstrand & Sciolla, 2014). International research has also highlighted the need for competence in occupational therapy practice with LGBT populations (Bergan-Gander & von Kurthy, 2006; Kingsley & Molineaux, 2000; Twinley, 2014).

There is a paucity of information regarding how topics concerning LGBT health and occupations are addressed in occupational therapy academic programs. However, research has documented gaps in education for other health professions. For example, a survey of nursing faculty revealed that 50 percent of respondents indicated limited knowledge and lack of awareness of LGBT issues; 75 percent reported LGBT content was non-existent or limited in the courses they taught (Lim, Johnson & Eliason, 2015). Classroom time devoted to LGBT health topics in the entire nursing program ranged from 0-10 hours, with an average of just over two hours (Lim et al., 2015).

The degree to which LGBT health concerns are addressed in occupational therapy curricula and impact student competencies in the United States (U.S.) has not been systematically investigated. This study examined the attitudes, knowledge, and clinical preparedness from the perspective of current occupational therapy students (occupational therapy assistant, master's, and doctoral levels) and recent graduates to identify gaps in content and to guide educators in developing or evaluating teaching related to occupational therapy practice with sexual and gender minority populations. Specifically, the aims were to 1) identify the amount of time and type of clinical preparation provided by occupational therapy education programs and 2) how training time and other student characteristics predict clinical skills required for practice with LGBT clients.

METHODS

Design and Sample

Cross-sectional survey data were collected from a volunteer sample of occupational therapy assistant (OTA), master's degree, and entry-level doctorate (OTD) students, and recent graduates (within 12 months) of accredited occupational therapy programs in the U.S. Participants were recruited by posting notices on the AOTA's General Forum under "Survey Requests." Occupational therapy program directors and occupational therapy fieldwork consortium regional contacts from accredited programs in the U.S. were also invited by email to forward the survey link to students and recent graduates.

The final number of valid survey responses was 435. This number represented 74.0 percent of eligible respondents among all respondents who opened the survey (N=622; 34 did not meet the inclusion criteria as an occupational therapy student or recent graduate, 148 had incomplete data, and five declined to participate after reviewing the introduction and consent page).

Survey Instrument and Measures

The survey included 31 questions: one question to give consent, 12 demographic questions and 18 questions from the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS). The LGBT-DOCSS was designed as an interprofessional clinical skills instrument and was validated through research with a large multinational and interdisciplinary sample and demonstrated evidence of discriminant and content validity, strong test-retest reliability, and good internal consistency among its three subscales (Bidell, 2017). The instrument was used with permission of the author.

The LGBT-DOCSS consists of three subscales: clinical preparedness, knowledge and attitudes. Each item of the LGBT-DOCSS invites participants to rate their level of agreement with statements using a Likert scale ranging from one “strongly disagree” to seven “strongly agree.” The LGBT-DOCSS self-assessment includes questions such as: “I have received adequate clinical training and supervision to work with transgender clients/ patients” (clinical preparedness), and “I am aware of research indicating that LGB are more likely to be diagnosed with mental illnesses than are heterosexual individuals” (knowledge). Separate questions are asked about knowledge and preparedness for working with LGB populations and transgender populations. Attitude questions (all reverse scored) include statements such as “the lifestyle of a LGB individual is unnatural or immoral,” “people who dress opposite to their biological sex have a perversion,” and “I would be morally uncomfortable working with a LGBT client/patient.” Higher scores on a subscale of the LGBT-DOCSS are indicators of increased knowledge, more positive attitudes, and greater clinical preparedness for treating LGBT clients (Bidell, 2017).

Participants were asked to identify their age, race, gender, sexual orientation, status as an OTA, master’s, or OTD student or recent graduate, and geographic region of their educational institution. Background information also included two variables found to be associated with attitudes/beliefs about sexual and gender minorities: whether someone close to them (i.e., close family or friend) was a sexual or gender minority (yes, suspect but not sure, or no), and about importance of religion to them (very important, somewhat important, not so important, not at all important). Participants were also asked to select categories representing how much time (including lectures, readings, assignments) in the curriculum was dedicated to clinical preparedness for working with sexual and gender minorities. Participants were invited to both select categories and provide an open-ended response describing content in their occupational therapy curriculum related to sexual and gender minorities. The four categorical options included health and wellness needs of sexual minorities (lesbian, gay bisexual); health and wellness needs of gender minorities (transgender); respectful communication with sexual and gender minorities; and ethical issues that might arise in the care of persons who identify as sexual and gender minorities.

Procedures

The survey requests were distributed via e-mail for four weeks in Spring 2019, and participants accessed the survey through an anonymous link to Qualtrics™. After the survey was closed, response data was transferred to the IBM Statistical Package for the Social Sciences, Version 25, for analysis. The study qualified for exemption from the San José State University Institutional Review Board (IRB), and a waiver of signed consent was approved.

Data Analysis

Scoring for the LGBT-DOCSS questions was calculated for each of three subscales following the guidelines provided by Bidell (2017), for use as dependent variables in analyses. In addition, reliability of the LGBT-DOCSS subscales in the sample were assessed before use in analysis. Internal consistency was strong, with Cronbach's alpha scores of .83 for the Clinical Preparedness measure, .85 for the Basic Knowledge measure, and .90 for the Attitudinal Awareness measure. One-way ANOVA and independent sample t-tests were used to examine differences in mean for each LGBT-DOCSS subscale by demographic variables and a three-category variable for hours of curriculum content or training in working with sexual minority and with gender minority clients. Multivariate linear regression analyses were conducted to examine which demographic variables were associated significantly with higher scores of LGBT-DOCSS subscales, when controlling for other independent variables.

RESULTS

Perceptions about Time for and Type of Training

Table 1 summarizes the number of hours participants recalled receiving educational training related to working with sexual minorities and gender minorities respectively. Having zero curriculum time allocated to working with sexual minorities (20.9%) and gender minorities (31.0%) was common. Approximately two-thirds of respondents described having two hours or less exposure to working with sexual and gender minorities. Table 1 also provides a summary of the participant demographics for the study sample. A majority of respondents identified as being between the ages of 18-34, heterosexual/straight, and "woman". The sample included respondents from all four major U.S. census regions (Northeast, South, Midwest, and West).

A majority of respondents reported receiving education on respectful communication in treatment sessions (62.8%) and ethical issues that might arise in the care of occupational therapy clients (56.1%). However, there were reports in open-ended comments that this education was not focused explicitly on addressing the needs of LGBT clients. For example, one respondent indicated that students in their program "learned everything under a general diversity lecture that also included race and religion" and another noted "our curriculum addresses diversity in a general sense; it does not specifically address issues related to sexual and gender minorities." A minority of respondents reported receiving education in their curriculum on the health and wellness needs of sexual minorities (26.9%) or the health and wellness needs of gender minorities (22.3%). Many of the respondents who provided comments about their

occupational therapy curriculum (N=21) noted that there was little to no education provided in their curriculum and several noted that the only knowledge gained was through their own initiative such as attending a “workshop associated with a student group,” accessing “optional training through campus LGBTQ center,” or “educating myself due to researching the LGBTQ community for my master’s project.”

Effects of education and student characteristics on LGBT-DOCSS scores

Mean scores and standard deviations for each subscale of the LGBT-DOCSS in bivariate analyses of educational level, hours of educational training and other demographic characteristics are summarized in Table 2. Results of multivariate regression models are also reported in Table 2, with notations about characteristics and demographics that significantly predicted sub-scores (while controlling for other variables). Overall, there were significant differences between education levels for the LGBT-DOCSS clinical preparedness and basic knowledge subscale, with master’s and OTD students and practitioners scoring higher than OTA students. Having three or more hours of training was also significantly associated with higher scores for clinical preparedness and basic knowledge. No significant differences in attitudes were found in relation to level of education and number of educational hours.

Several demographic characteristics were significantly associated with differences in sub-scores. Sexual minority identity was associated with higher basic knowledge and clinical preparedness scores. Although means for basic knowledge and clinical preparedness scores were higher among gender minorities than other sex/gender groups, these differences were not significant in multivariate analyses (possibly because of the small number of gender minority respondents). Knowing someone (close to the respondent) who identified as sexual or gender minority predicted higher preparedness and attitude scores. Higher levels of religiosity were associated with lower scores on basic knowledge and less positive attitudes about sexual and gender minority populations compared to participants for whom religion was not very or not at all important. Participants in the West, Midwest and Northern regions of the U.S. all had significantly more positive attitudes about sexual and gender minorities compared to respondents from the South. However, confidence about clinical practice was higher among respondents from the South compared to the West. Respondents in the older age categories had higher scores on clinical preparedness and on positive attitudes (significant for the 25-34-year old’s) compared to the youngest group. Few differences emerged by race/ethnicity and those should be interpreted with caution because of the small numbers of participants in some groups.

Table 1

Demographic Characteristics of Respondents (N=435)

Characteristic	Percentage (n)
Degree Status	
OTA student	5.1 (22)
Master's student	66.0 (287)
OTD student	15.4 (67)
Recent graduate (within past year)	13.6 (59)
Hours OT education on LGB content	
None	20.9 (91)
Less than 1 and up to 2 hours	67.8 (295)
3 or more	11.3 (49)
Hours OT education gender minority content	
None	31.0 (135)
Less than 1 and up to 2 hours	61.1 (266)
3 or more	7.8 (34)
Age	
18-24	47.1 (205)
25-34	42.5 (185)
35 and older	10.3 (45)
Gender Identity	
Man	8.8 (38)
Woman	89.6 (389)
Transgender, gender queer, gender non-conforming, other	1.6 (7)
Sexual Orientation	
Heterosexual/straight	84.7 (365)
Lesbian, gay, bisexual, queer, questioning (LGBQQ+)	15.3 (66)
Race/Ethnicity	
White	73.7 (314)
Hispanic/Latinx	9.0 (39)
Black/African American	3.0 (13)
Asian/Pacific Islander	7.1 (31)
Multiracial and other	8.5 (37)
Region of U.S.	
West	34.0 (148)
Midwest	18.2 (79)
Northeast	14.0 (61)
South	33.8 (147)
Religiosity	
Very or somewhat important	53.2 (231)
Not very/ not at all important	46.7 (203)
Someone close is sexual or gender minority (SGM)	
Yes	84.8 (367)
No/not sure	15.2 (66)

Table 2

LGBT-DOCSS Subscale (range 1-7) by Demographic Characteristics of Respondents (N=435)

Characteristic	Clinical Preparedness M (sd)	Basic Knowledge M (sd)	Attitudinal Awareness M (sd)
OT Status			
OTA student ¹	3.2 (1.2)	4.0 (1.7)	5.1 (0.9)
Master's student	3.6 (1.2) +	4.8 (1.5) *	5.5 (0.9)
OTD student	3.8 (1.2) *	5.3 (1.3) **	5.7 (0.5)
Recent graduate (12 mo.)	4.3 (0.8) ***	5.2 (1.2) **	5.4 (0.8)
Hours LGB content			
None ¹	3.3 (1.1)	4.4 (1.6)	5.5 (0.9)
Less than 1 and up to 2 hours	3.6 (1.2)	4.9 (1.4) *	5.4 (0.8)
3 or more	4.7 (1.1) ***	5.5 (1.2) *	5.7 (0.7)
Hours gender minority content			
None ¹	3.4 (1.1)	4.7 (1.6)	5.6 (1.0)
Less than 1 and up to 2 hours	3.7 (1.2)	4.9 (1.4)	5.4 (0.9)
3 or more	4.6 (1.2)	5.5 (1.3)	5.4 (0.8)
Age			
18-24 ¹	3.5 (1.3)	4.9 (1.5)	5.3 (1.0)
25-34	3.8 (1.1) **	4.8 (1.5)	5.6 (0.7) *
35 and older	4.0 (1.4) **	4.9 (1.4)	5.7 (0.5)
Gender Identity			
Man	4.0 (1.1)	4.8 (1.4)	5.4 (1.0)
Woman	3.6 (1.2)	4.9 (1.4)	5.5 (0.8) *
Transgender/genderqueer	5.1 (1.0) *	6.1 (1.5) +	5.4 (1.2)
Sexual orientation			
Heterosexual/straight ¹	3.6 (1.2)	4.7 (1.5)	5.4 (0.9)
LGBQQ+	4.1 (1.2) *	5.8 (1.1) ***	5.8 (0.3) ***
Race/Ethnicity			
White ¹	3.7 (1.2)	4.8 (1.5)	5.5 (0.9)
Hispanic/Latinx	3.7 (1.2)	5.1 (1.6)	5.7 (0.6) *
Black/African American	4.2 (1.3)	5.0 (1.1)	5.5 (0.7)
Asian/Pacific Islander	3.1 (1.3) *	5.0 (1.3)	5.5 (0.8)
Multiracial and other	3.4 (1.2)	5.1 (1.3)	5.6 (0.8)
Region of U.S.			
West	3.5 (1.3) ***	4.9 (1.4)	5.7 (0.5) ***
Midwest	3.7 (1.1)	5.0 (1.5)	5.5 (0.7) ***
Northeast	3.6 (1.2)	4.7 (1.6)	5.6 (0.6) ***
South ¹	3.8 (1.2)	4.9 (1.4)	5.1 (1.1)
Hours LGB content			
None ¹	3.3 (1.1)	4.4 (1.6)	5.5 (0.9)
Less than 1 and up to 2 hours	3.6 (1.2)	4.9 (1.4) *	5.4 (0.8)
3 or more	4.7 (1.1) ***	5.5 (1.2) *	5.7 (0.7)

Religiosity			
Very or somewhat important ¹	3.7 (1.2)	4.7 (1.5)	5.1 (1.0)
Not very/ not at all important	3.6 (1.2)	5.1 (1.4) **	5.8 (0.3) ***
Someone close SGM			
Yes	3.7 (1.2) **	4.9 (1.5)	5.5 (0.8) **
No/not sure ¹	3.3 (1.2)	4.6 (1.3)	5.0 (1.1)

¹ Reference group in multivariate linear regression

***p<.001; **p<.01, * p<.05, + p<.10

DISCUSSION

This study examined occupational therapy students' and recent graduates' basic knowledge, clinical preparedness and attitudinal awareness for working with LGBT clients. It was notable that both basic knowledge and clinical preparedness for working with LGBT populations was positively influenced by hours of LGB content in the curriculum. There was no significant difference based on analysis of transgender content, even when controlling for advanced degree level, work experience, and sexual orientation (with LGBT students scoring higher). However, 21% of participants reported the topic was not covered in the curriculum, while an additional 68% reported less than two hours of time developed to LGBT topics.

The optimal amount of curricular time required for students to learn basic competencies in working with LGBT populations is not known. Surveys with medical students and nurses estimate that most curricula devote two to five hours to LGBT-related content (Cornelius & Carrick, 2015; Lim, Brown, & Justin Kim, 2014). A program consisting of diverse teaching strategies (readings, two-hour presentation on LGBT health, and assignment, and interviews) attained a broader goal for increasing knowledge, skills, and attitudes in a population of nursing students (Carabez, Pellegrini, Mankovitz, Eliason, & Dariotis, 2015). Further research is needed to better understand how time devoted to preparation in working with sexual and gender minorities may impact preparedness for practice.

Students in the current study generally rated themselves low (between three and four on a seven-point scale) on questions related to clinical preparedness, indicating they felt they did not have adequate training relative to working with LGBT clients. This suggests there are opportunities to evaluate and enhance occupational therapy curricula in this area. One way to evaluate the curriculum is to consider competencies that should be required in a content area. To provide effective occupational therapy, students and practitioners must be able to recognize differences in minority populations' health beliefs and behaviors, and address clients' needs in ways that are respectful of the clients' beliefs, priorities and preferences (Muñoz, 2007; Rodakowski & Suarez-Balazar, 2016). Key topics related to sexual and gender minorities include terminology, stigma and discrimination, LGBT-specific health disparities, sexuality and sexual dysfunction, and history taking (Sekoni, Gale, Manga-Atangana, Badhuri, & Jolly, 2017). Intersectionality should also be addressed, as clients may experience overlapping systems of disadvantage based on gender, social class, education, citizenship, sexual orientation, ethnicity, age, and other factors (Gupta, 2016). For example, older gay persons, during

their youth, often experienced significant threats (homophobia, alienation, heteronormativity, and heterosexism) that may affect their health and life choices and opportunities as they age (Twinley, 2014).

Comments from students in the present study suggested that the estimated time spent addressing sexual and gender minority topics in the curriculum was often embedded in general discussions about cultural competence, cultural humility, and other minority health concerns. However, research suggests that targeted LGBT education is more effective in modifying attitudes towards working with LGBT patients than general training in cultural competence (Phelan et al., 2017). Although evidence for optimal pedagogies are still emerging, researchers have suggested that content should include contextualized scenarios that focus on social justice as well as cultural competence (Lim et al., 2015). Content should be inclusive of health disparities, unique knowledge and skills for this population, as well as health and wellness promotion. Knowledge and understanding about the needs of subgroups such as older adults, adolescents, and racial or ethnic minorities should also be integrated into the curriculum (Lim et al., 2014). Specific types of activities include reflection, journaling, case studies, lectures, film and documentary screenings, discussions, panel presentations, role-playing, simulations, and partnerships with campus groups or community agencies that serve the LGBT communities (Carabez et al., 2015; Donoso Brown et al., 2011; Hickerson, Hawkins & Hoyt-Brennan, 2018; Sekoni et al., 2017). There are occupational therapy studies that discuss sexual orientation and gender using an occupational framework that could be threaded into the occupational therapy curriculum, for example, the effects of “coming out” on occupations (Birkholz & Blair, 1999; Devine & Nolan, 2007), and occupational transitions from childhood to early adulthood for transgender people (Schneider, Page, & van Nes, 2019).

In the current study, attitudinal awareness was positively associated with older age (25-34 years compared to 18-24 years), gender (women), sexual orientation (LGBQQ+), having a close friend or family member who was LGBT, and negatively associated with region (South), and religiosity. A similar finding about the relationship between conservative religious beliefs and diminished self-reported competence for working with LGBT clients was reported in a study of counselor education programs (Bidell, 2014). These findings point to the importance of integrating self-reflexivity and awareness of how the social climate (at societal, community and organizational levels) may influence beliefs, attitudes and practice.

At the most basic level, educators need to consider classroom climate, including their own attitudes, behaviors, and type of pedagogy, and whether students’ ideas and beliefs are heard and respected (Black, 2016). Faculty and students should also consider their own implicit biases, for example, use of pronouns, forms that ask only for male or female, and assumptions of heteronormativity. Time devoted to education about cultural effectiveness and cultural humility is often threaded across curricula and work settings, and may cover a range of topics related to race, ethnicity, religion, and disability. These learning opportunities in curricula and field settings should integrate explicit education about cultural effectiveness and cultural humility in relation to sexual

and gender minority status. Students and practitioners are challenged to reflect on their own culture, values, beliefs, and knowledge, and to consider their skills in working with clients who are from a different culture to their own (Holstein, Liedberg & Öhman, 2019; Salkind, Gishen, Drage, Kavanagh, & Potts, 2019). Students must then be able to apply their understanding about the culture to choose client-centered assessments and implement culturally competent interventions (Rodakowski & Suarez-Balcazar, 2016).

Implications for Occupational Therapy Education

Findings from this study underscore the utility of self-assessment tools for identifying strengths and weaknesses in occupational therapy curricula. Examples of measures of awareness, knowledge and skills for cultural competence include the Cultural Competence Assessment Instrument from the University of Illinois at Chicago (CCAI-UIC; Suarez-Balcazar et al., 2011), which measures general competence, and the LGBT-DOCSS (Bidell, 2017) used in this study and designed specifically for self-examination related to working with LGBT populations. These or similar tools could prove useful in determining educational outcomes related to teaching about diversity, with the LGBT-DOCSS specifically geared to the sexual and gender minority population. Rodakowski and Suarez-Balcazar (2016) suggested that a comprehensive assessment of cultural competence should include (1) engaging in self-reflection (2) rating self-perceived cultural competence (3) client ratings of practitioner's cultural competence and (4) examining client outcomes. Once gaps in knowledge, skills and attitudes have been identified, curricula can be enhanced to strengthen pedagogy related to LGBT health disparities, and to encourage students to become advocates for at-risk populations (Eckstrand & Sciolla, 2014).

Organizational support, which in the context of a school setting would be institutional and department support for a curriculum that practices and teaches cultural competence and humility (Eckstrand & Sciolla, 2014), are important factors in advancing curricula changes. There are often competing agendas and limited resources in academic settings, so curricula changes can occur incrementally (Lim et al., 2015). Barriers to inclusion of LGBT-specific content might include faculty or institutional bias, lack of evidence regarding effective curricular material, faculty perceptions that content might not be relevant, faculty experience or competence for teaching about LGBT issues, and general lack of time and support for teaching the content, changing the curriculum, and outcome studies (Eckstrand & Sciolla 2014; Lim et al., 2015).

Findings from the study should be interpreted in the context of its limitations. First, there is a risk of self-selection bias for those participants who opted to take the voluntary survey. Many of these participants may have chosen to take the survey because they have a special interest in LGBT topics or identify as LGBT themselves. The LGBT population in the U.S. is estimated to be 3.5% to 10% of the population (Lim et al., 2014), and a larger percentage of participants in this study identified as LGB. Second, the sample is limited to respondents from the U.S. Although many of the issues revealed in the study may be applicable to other countries, it is possible that findings may be influenced, at least in part, by factors associated with the social and political climate in the U.S. at the time of the survey. Third, there may be response bias and the

sample may over-represent occupational therapy students and recent graduates in the U.S. and Puerto Rico who feel confident or positively about LGBT competence in practice. Fourth, although the study included students from different regions of the U.S., participants may not be assumed to be representative of the students and graduates of programs throughout the U.S. For example, the response rates were higher from the South and West compared to other regions of the country. Finally, there are limitations associated with measures used in the study. The study asked respondents to estimate the number of educational hours dedicated to sexual and gender minority populations, but there were no quantitative follow up questions about the focus or the quality of these facets of their curriculum.

Implications for Occupational Therapy Practice

The occupational therapy profession is founded on the belief that engaging clients in meaningful and purposeful occupations influences their development, health, and well-being. To understand the meaning of clients' occupations requires seeing people as unique individuals whose identity is influenced by their many cultural affiliations, including community, professions, and society (Gupta, 2016). Therapists who are culturally responsive are open to building mutuality with the client, using cultural-specific knowledge in cases where it applies, and using active listening, respect and questioning to understand the individual (Muñoz, 2007).

This study identified self-reported gaps in basic knowledge, clinical skills, and attitudinal awareness of occupational therapy students for working with sexual and gender minority populations, and underscores the need for further education.

- Occupational therapy students and new graduates report they are not adequately prepared to work with persons who identify as sexual and gender minorities.
- At a minimum, students and practitioners must recognize differences in minority populations' health beliefs and behaviors, and address clients' needs in ways that are respectful of the clients' beliefs, priorities and preferences.
- Key topics in curricula should include terminology, stigma and discrimination, LGBT-specific health disparities, sexuality and sexual dysfunction, intersectionality, and how to administer and interpret occupational therapy assessments that may not have standardized data related to gender minorities, and to develop appropriate intervention plans.

CONCLUSION

Addressing the occupational performance needs of clients who are LGBT or are members of other sexual and gender minorities will be most successful when practitioners acquire foundational skills to meet the unique needs of this population. This study identified gaps in basic knowledge, clinical skills, and attitudinal awareness of occupational therapy students across the U.S. Further investigation is needed to identify optimal, evidence-based pedagogy for improving educational outcomes and ultimately care for occupational therapy clients.

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