

2023

Moving Forward Together: Reflections of a National Survey of OT/OTA Students' Perceptions of Culturally Aware Educational Content Delivery

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Recommended Citation

Sanchez, A. M., Burns, I. W., DeAngelis, T. M., Capron, M., Mills, A., & Kligerman, T. (2023). Moving Forward Together: Reflections of a National Survey of OT/OTA Students' Perceptions of Culturally Aware Educational Content Delivery. *Journal of Occupational Therapy Education*, 7 (1). <https://doi.org/10.26681/jote.2023.070102>

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Abstract

In June of 2020 in response to the murder of George Floyd and the additional atrocities against historically marginalized people and communities across the United States, the Commission on Education (COE) of the American Occupational Therapy Association (AOTA) sought to act within its scope. A retrospective survey (N= 1,692) was developed, deployed, and analyzed in accordance with the COE's standard operating procedures relating specifically to monitoring trends that impact the education of occupational therapy (OT) and occupational therapy assistant (OTA) students. This survey aimed to capture perspectives from OT/OTA students regarding the delivery of culturally aware educational content in curricula provided by faculty. Results indicated that faculty are attempting to deliver aspects of culturally aware content with a limited number of delivery methods. Furthermore, findings suggested the need for rigorous and comprehensive improvements to content delivery related to diversity, equity, inclusion (DEI), social determinants of health (SDOH), and intersectionality across the classroom and clinical settings. Implementation of basic instruction, such as lectures/readings, and higher-level processing and application-based materials (i.e., case studies, discussions, role-playing, and simulations) need to be included throughout the entire OT/OTA curriculum experience and are critical to comprehensively educate and equip students for contemporary and culturally informed practice. Faculty would benefit from the development of instructional best practice strategies that expand beyond the delivery of knowledge acquisition. This study aims to lay the groundwork to advance and inform the skills of faculty, fieldwork, and capstone coordinators to deliver culturally aware curricula.

Keywords

Cultural awareness, occupational therapy, curriculum design, higher education

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Acknowledgements

The authors would like to acknowledge the many OT/OTA students who took the time to complete the survey. The authors would also like to extend their gratitude to Ilyse Kramer, MLIS, MPA, OTS and Sara Mathai, OTS from Thomas Jefferson University for their gracious contributions. Moreover, the authors would like to thank the members of the 2019-2022 American Occupational Therapy Association Commission on Education for their gracious contributions towards the initial development of this important project.

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JOTE

Journal of Occupational
Therapy Education

Volume 7, Issue 1

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ABSTRACT

In June of 2020 in response to the murder of George Floyd and the additional atrocities against historically marginalized people and communities across the United States, the Commission on Education (COE) of the American Occupational Therapy Association (AOTA) sought to act within its scope. A retrospective survey (N= 1,692) was developed, deployed, and analyzed in accordance with the COE's standard operating procedures relating specifically to monitoring trends that impact the education of occupational therapy (OT) and occupational therapy assistant (OTA) students. This survey aimed to capture perspectives from OT/OTA students regarding the delivery of culturally aware educational content in curricula provided by faculty. Results indicated that faculty are attempting to deliver aspects of culturally aware content with a limited number of delivery methods. Furthermore, findings suggested the need for rigorous and comprehensive improvements to content delivery related to diversity, equity, inclusion (DEI), social determinants of health (SDOH), and intersectionality across the classroom and clinical settings. Implementation of basic instruction, such as lectures/readings, and higher-level processing and application-based materials (i.e., case studies, discussions, role-playing, and simulations) need to be included throughout the entire OT/OTA curriculum experience and are critical to comprehensively educate and equip students for contemporary and culturally informed practice. Faculty would benefit from the development of instructional best practice strategies that expand beyond the delivery of knowledge acquisition. This study aims to lay the groundwork to advance and inform the skills of faculty, fieldwork, and capstone coordinators to deliver culturally aware curricula.

Introduction

In the wake of the murder of George Floyd in June 2020, a national paradigm shift prompted the initiation of this study to better understand how systems, such as higher education in the United States, can contribute to the disparities experienced by individuals from historically marginalized groups. The American Occupational Therapy Association (AOTA) Vision 2025 pillar of equity, inclusion, and diversity states that occupational therapy (OT) practitioners must be “intentionally inclusive and equitable and embrace diversity in all its forms” (AOTA, 2016, 2019). Additionally, the AOTA (2021) OT curriculum design framework emphasizes that educators must be actively engaged in “how to best include occupational therapy’s role in diversity, equity, inclusion and responsiveness in the curriculum” (p. 10). Future practitioners must learn how to provide culturally appropriate care characterized by awareness, humility, and dexterity in client interactions (AOTA, 2020b). These actions are essential because “occupational therapists are ethically bound to provide quality care to assist all people across the life course to engage in meaningful occupations” (AOTA, 2020b, p.1).

Educating future OT practitioners on the historical and present inequities that marginalized groups experience with respect to occupations is critical to recognizing the impact that inequities can have on clients (Lavalley & Johnson, 2020). Occupational therapy educators must engage in intentional inclusive practices and policies within curriculum design and throughout the implementation of inclusive educational content across learning environments (Serman et al., 2022). To truly fulfill AOTA’s equity, inclusion, and diversity pillar, OT educational content must be diverse, examine the impact of power and politics on content to uphold equity, and deliver activities that support diverse learners to achieve dexterity in a variety of ways (Lavalley & Johnson, 2020; Sakellariou & Pollard, 2013; Seward, 2019; Simaan, 2020). It is imperative to note that the demographic makeup of OT practitioners is exceedingly homogenous, with a reported 84% of practitioners identifying as Caucasian/White and 91% identifying as female (AOTA, 2020a). The demographic makeup of OT practitioners impacts the teaching environment and potentially influences how topics such as diversity, equity, and inclusion (DEI), social determinants of health (SDOH), and intersectionality are limited in curricula (Johnson et al., 2022).

The co-authors recognize there are various definitions and interpretations of DEI, SDOH, intersectionality, cultural awareness, and related terminology. The AOTA COE 2020 board members collaborated with content experts from the field of OT to determine definitions of terminology used throughout the survey. For this survey, “DEI” was regarded as synonymous with “diversity” and was defined as “the condition of having or being composed of different elements; the inclusion of different types of people (such as people of different races or cultures) in a group or organization” (Merriam-Webster, n.d.-a). “SDOH” was defined as “conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life risks and outcomes” (Centers for Disease Control and Prevention [CDC], 2021b). “Intersectionality” was defined as “the complex, cumulative way in which the effects of multiple forms of discrimination (such as racism, sexism, and classism) combine, overlap, or intersect especially in the experiences of marginalized individuals or groups”

(Merriam-Webster, n.d.-b). Across the literature, within and outside the field of OT, there are numerous terms including: cultural competency, cultural sensitivity, cultural humility, cultural safety, cultural intelligence, and cultural awareness (AOTA, 2020b; Shepherd, 2019). To date, there are steady developments and a lack of consensus regarding which terminology is most comprehensive, therefore this paper will adhere to the common terms as outlined by the Educator's Guide (AOTA, 2020b).

Literature Review

Limited research has explored cultural awareness and related topics in OT education; of the available evidence, the primary focus has been on cultural competency rather than cultural awareness. Cultural awareness education aims to reduce personal bias by improving providers' knowledge and reflexivity in order to improve health service provision (AOTA, 2020b). A scoping review that examined 87 articles to explore OT pedagogical practices related to diversity educational content found that most related content is delivered through competency-based paradigms (Agner, 2020; Beagan, 2015; Grenier et al., 2020). Cultural competency-based education can be defined as acquiring skills that are intended to be quantifiable and measurable with the purpose of achieving mastery (Serdenciuc, 2013). Cultural competency-based education focuses on an individualized vantage point, consequently, overlooking larger systemic injustices and their impact on occupations in a social and cultural context (Grenier, 2020; Grenier et al., 2020; Sakellariou & Pollard, 2013). Critics of cultural competency practices suggest the belief there is an "end state" to understanding a client's culture could result in increased assumptions contributing to a decrease in client-centered practices (Beagan, 2015; Grenier et al., 2020).

In other health professions, similar cultural competency-based approaches have been utilized in curricula to address cultural awareness-related content. Several scoping reviews have examined articles from various health professions and revealed improvements in students' knowledge, attitudes, and skills indicating the need for a multi-modal educational approach to comprehensively train instructors (Arruzza & Chau, 2021; Gradellini et al., 2021). Although improvements have been made across many health professions' curricula regarding cultural awareness content, gaps remain. Dogra et al. (2010) identified that an obstacle to effective implementation in medical schools was there can be a lack of formal education and training for the faculty expected to execute the education. Davis et al. (2021) found that medical students felt ill-prepared to treat clients whose cultural background was different from their own and that this shortcoming emerged during their training in medical school.

Shifting away from cultural competence training to cultural humility in OT education and practice is necessary to fully improve healthcare service provision (Agner, 2020; Brown et al., 2021). Cultural humility welcomes lifelong learning and critical reflexivity, recognizes the impact of sociocultural factors, and strives to cultivate meaningful partnerships (Tervalon & Murray-Garcia, 1998). There have been heightened discussions on the importance of including curricula content related to social, cultural, and political factors within historically marginalized groups (Brown et al., 2021;

Sakellariou & Pollard, 2013). “This sense of purpose, however, is challenged by institutional, systemic, and attitudinal barriers to equitable care for racial and ethnic minorities and other marginalized identities” (AOTA, 2020b, p. 1).

According to Locke and Trolan (2018), higher education institutions are social settings with unique values and norms initially designed to meet the needs of the white and wealthy; as a result, many “institutional biases and historic customs and traditions of colleges and universities remain today” (p. 67). These outdated practices continue to perpetuate disparities by simultaneously including some students while excluding others. Edgoose et al. (2018) reported that historically underrepresented students value a positive racial climate in the classroom but typically do not have this experience during their education. A recent survey administered to Black/African American OT/OT Assistant (OTA) students indicated that many of the respondents reported “high importance” of feeling supported by faculty as well as “high importance” on having action-oriented diversity efforts in the classroom (Kitchens et al., 2022); yet many students from underrepresented groups in OT did not experience this in their education (Brown et al., 2021).

Research demonstrates that it is imperative to go “beyond teaching occupational therapy students how to understand diverse needs (e.g., cultural competency); instead, educators must be prepared to teach students how to be anti-racist and work with [Black and Indigenous People of Color] BIPOC clients whose health is negatively affected by racism” (Sterman et al., 2022, p. 2). Education must transcend paradigms of racism and racial equity; there must be an experiential learning opportunity for students to have an understanding of intersectionality (Davis et al., 2021; Johnson et al., 2022). Consistently across much of the health professions literature, it is recognized that strides have been made to incorporate culturally aware content into curricula, yet barriers still exist to the cultivation and implementation of content.

To date, there is a dearth of evidence identifying OT/OTA student perceptions regarding the delivery of culturally aware educational content by OT/OTA faculty. The AOTA COE administered a national survey (N= 1692) to examine OT/OTA students' perceptions of the delivery of culturally aware educational content. This study was designed to analyze, interpret, and make recommendations to educators regarding student perceptions of culturally aware content delivery that includes DEI, SDOH, and intersectionality in OT/OTA programs across the United States.

Methodology

An 18-question survey (Appendix A) was developed by the 2020 AOTA COE that included input from DEI content experts. The survey was subsequently transferred into Qualtrics, a survey tool, and was deployed across the United States via email to OT/OTA program directors to be shared with their respective student cohorts; the survey remained open for a period of seven weeks during the Fall of 2020. All study procedures were approved by an Institutional Review Board (IRB). Demographic

information collected included the year in school, type of educational program, and program's state. Content area questions explored DEI, SDOH, and intersectionality delivery methods and included a mixture of close-ended and open-ended questions.

Analysis of Course Content

The quantitative survey results were downloaded from Qualtrics and subsequently uploaded to IBM SPSS Statistics for Windows, Version 27. Nine separate one-way ANOVA tests were conducted to determine if there were statistically significant differences between the demographic variables. For the purposes of this analysis, the number of educational content delivery methods used to address educational content (i.e., DEI, SDOH, intersectionality) was compared against (1) the year the students reported being in their educational program; (2) the type of educational program the student reported being enrolled in; and (3) the program location.

Analysis of Open-Ended Survey Responses

All open-ended responses were organized using Microsoft Excel version 2019. Only respondents who provided responses to one open-ended question at minimum were included in the open-ended data analysis. A codebook was created to provide criteria for each category specifically related to the methods of delivery and interactions for DEI, SDOH, and intersectionality educational content. In an effort to triangulate data, the creation of separate codebooks created by the two primary co-authors occurred, followed by multiple iterations until consensus was achieved. During the initial phase of coding, the two primary co-authors coded data independently using the initial codebook. Upon completion of the initial coding phase, the primary co-authors met to discuss discrepancies with codes and subsequently revised the codebook as necessary, until consensus was reached.

Subsequently, the primary co-authors held a one-hour training for the explanation of the codebook and coding practice for two other members of the research team. The training was concluded once all four researchers reached an 80% consensus on codes. The two other researchers then independently coded the same responses that the primary co-authors completed. Upon completion of coding, the four members of the research team met to discuss discrepancies until consensus was achieved for all responses. Once the second phase of the coding process was completed, the four members met and collaboratively revised the codebook and reconciled discrepancies. The resulting third and final version of the codebook was then used by a fifth member of the research team who independently coded the open-ended responses. The fifth member collaborated with the two primary co-authors to reach a consensus for any remaining discrepancies in codes to further strengthen the data triangulation.

As a result of the coding process, the researchers developed five different categories of educational content delivery methods: (1) lectures, (2) activities, (3) discussions, (4) student-led efforts, and (5) not applicable/incomplete (see Figure 1). The lecture category was described as students passively engaging in educational content with direct involvement from the professor or lecturer. Activities were characterized as students actively engaging in educational content independently, without direct

involvement from the professor or lecturer. Discussions were characterized as students actively engaging in educational content in a group, with or without the professor or lecturer's direct involvement. Student-led efforts were characterized as students taking initiative to ask probing questions in the classroom and/or engaging in student organizations. All open-ended responses that were irrelevant or not completely developed were categorized as not applicable/incomplete.

Figure 1

Categories of Educational Content Delivery Methods

Lectures	Activities	Discussions	Student-led Efforts	Not Applicable/ Incomplete
<ul style="list-style-type: none"> • Guest speaker or lecturer • Panels • Videos • PowerPoint presentations • Infographics • Didactic learning 	<ul style="list-style-type: none"> • Case studies • Coursework • Homework or Assignments • Quizzes, Tests, Assessments • Textbooks, Readings, Research Articles • Simulations or Training Modules 	<ul style="list-style-type: none"> • Journal article groups • Interprofessional (IPE) activity or event • Group work • Workshops or Seminars • Discussion (i.e., in-class, online discussion board) 	<ul style="list-style-type: none"> • Student-driven initiatives • Student organizations (i.e., Coalition of Occupational Therapy Advocates for Diversity (COTAD), and Student Occupational Therapy Association (SOTA)) 	<ul style="list-style-type: none"> • Response provided is incomplete, irrelevant, not specific, or not completely developed

Results

There were 1,795 respondents who initially opened the survey, however, only 1,692 respondents completed enough of the survey to be analyzed for this study. A total of 40 out of 50 states were represented by the 1,692 participants. During the data analysis, these 40 states were organized into four geographical regions (Northeast, Midwest, South, and West) as outlined by the United States Census Bureau (2010). At the time of responding to the survey, participants reported being in their first, second, or third year, or other (i.e., post-professional, etc.) in their respective educational programs. Students were from OTA programs or a variety of OT programs including entry-level combined bachelor's to master's, entry-level master's, and entry-level doctorate programs, or other (i.e., post-professional or unspecified; see Table 1).

Table 1*Participant Demographics*

	n	(%)
I am a student in a/an _____ program		
Occupational Therapy Assistant (OTA)	123	7.3
Entry-level Combined Bachelor's/Master's	116	6.9
Entry-level Master's	775	45.8
Entry-level Doctorate	649	38.4
Other	29	1.7
Total N	1692	100.1
I am currently a		
First-Year Student	682	40.3
Second-Year Student	647	38.2
Third-Year Student	280	16.5
Other	83	4.9
Total N	1692	99.9
Educational Program Geographical Location		
Northeast	415	24.5
South	435	25.7
Midwest	573	33.9
West	269	15.9
Total N	1692	100.0

Comparisons by Demographics

ANOVAs were conducted to assess if the demographics were related to content delivery. Results indicated the program type, student year, and/or program geographic location revealed no statistically significant difference regarding the amount or type of content delivery methods students reported being addressed by their educational program. Inferential statistical analyses were conducted to examine the relationship between student year and the number of delivery methods used to address culturally aware content (see Figure 2). Results indicated there was no relationship between the year a student was enrolled in a program and the amount or type of culturally aware content delivery methods. As shown in Figure 2, regardless of the year a student was in an OT/OTA program, on average, students responded that no more than 1.5 educational delivery methods were used to address culturally aware content.

The student's educational program type and the number of delivery methods were similarly assessed (see Figure 3). The results of a one-way ANOVA test indicated there was no statistically significant difference between the program type a student was enrolled in and the amount or type of delivery methods used to address culturally aware content (see Figure 3). The results of a one-way ANOVA test indicated that there was

no relationship between the geographical region of the educational program a student was enrolled in, and the amount or type of delivery methods used to address culturally aware content (see Figure 4).

Figure 2

Different Methods of Delivery by Year in Program

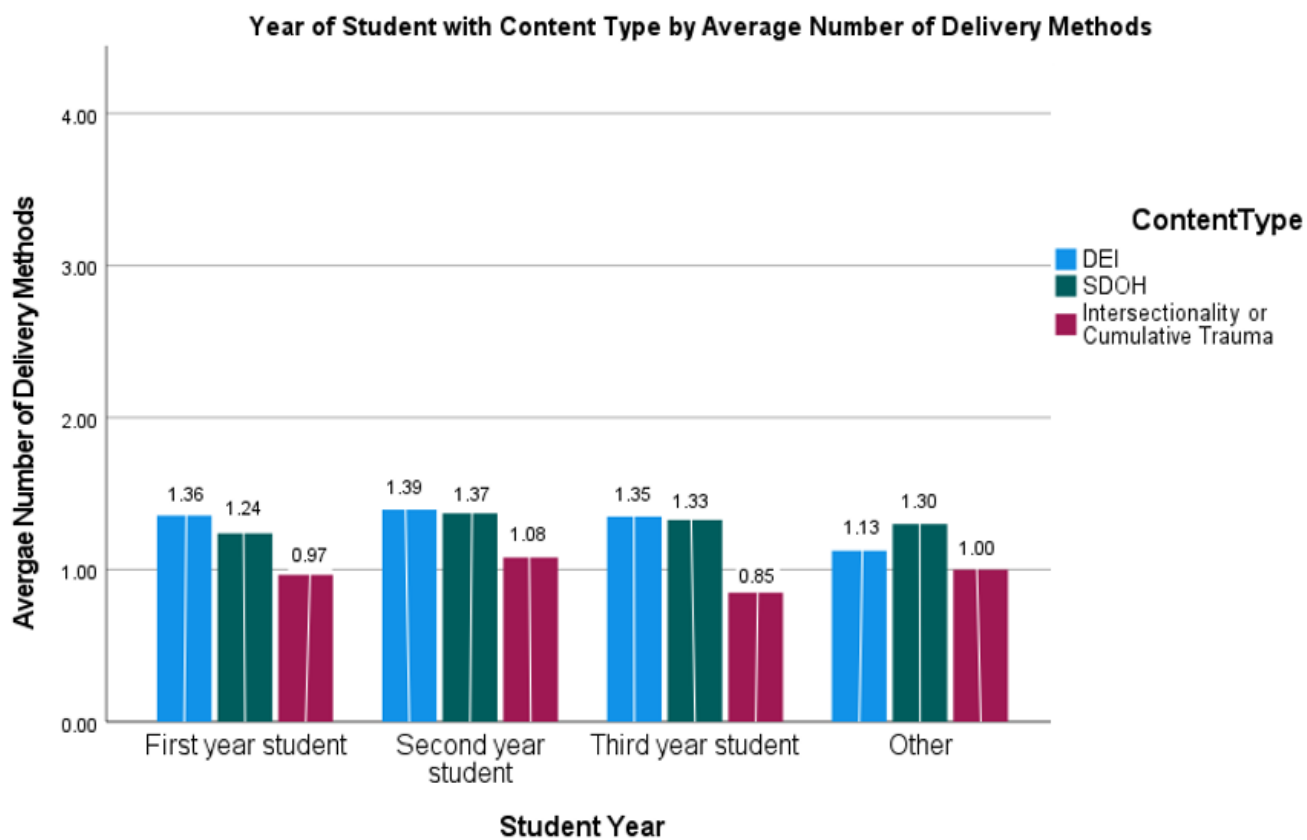


Figure 3

Different Methods of Delivery by Type of Educational Program

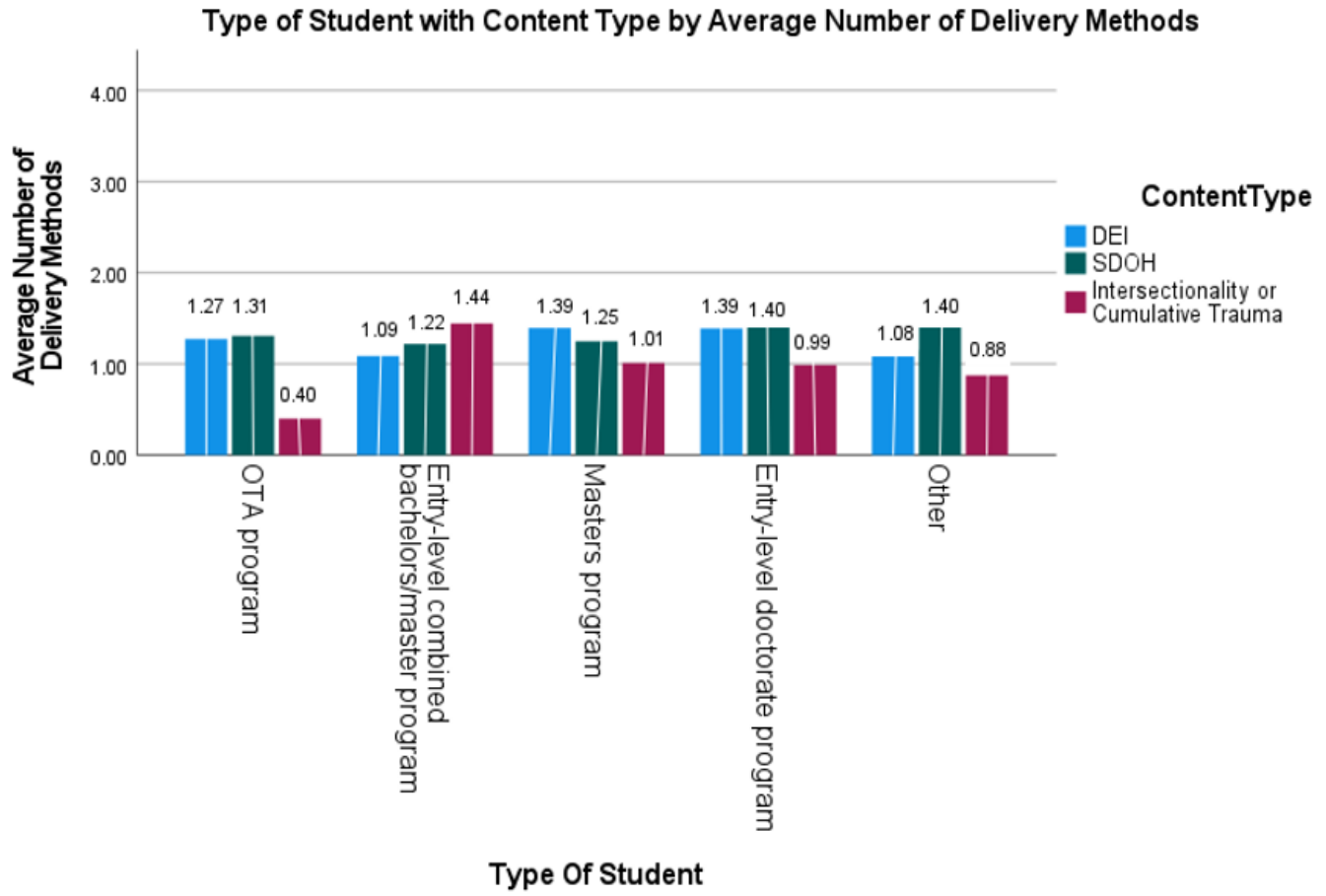
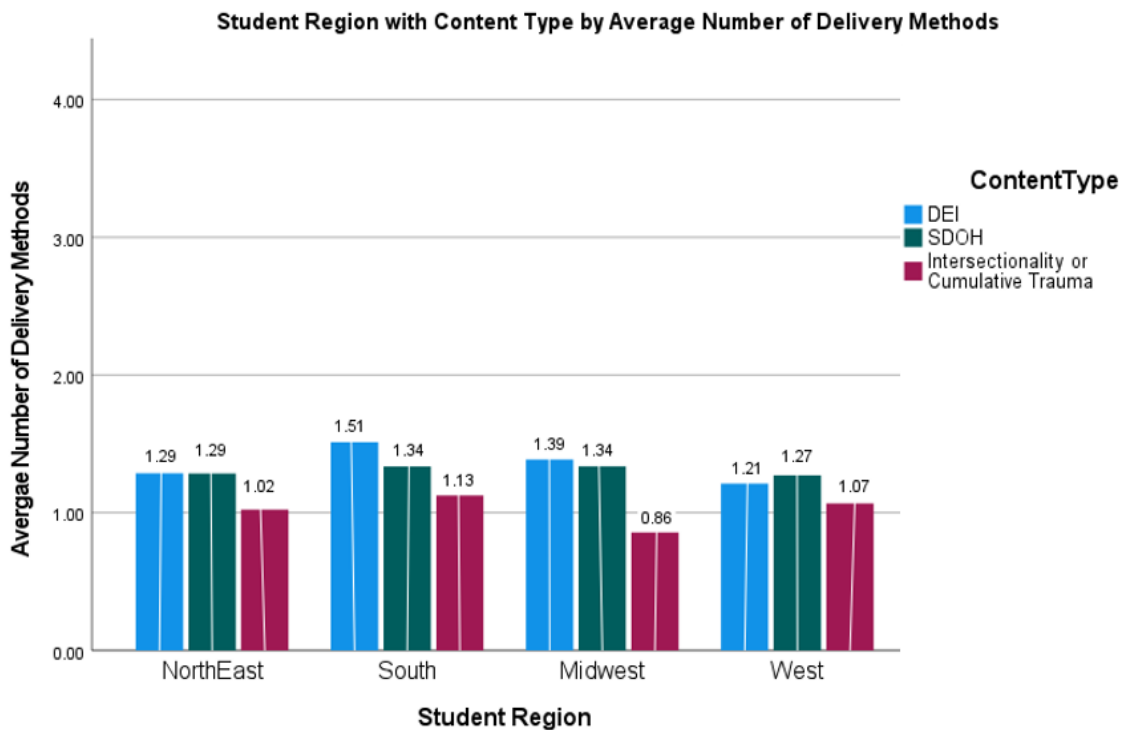


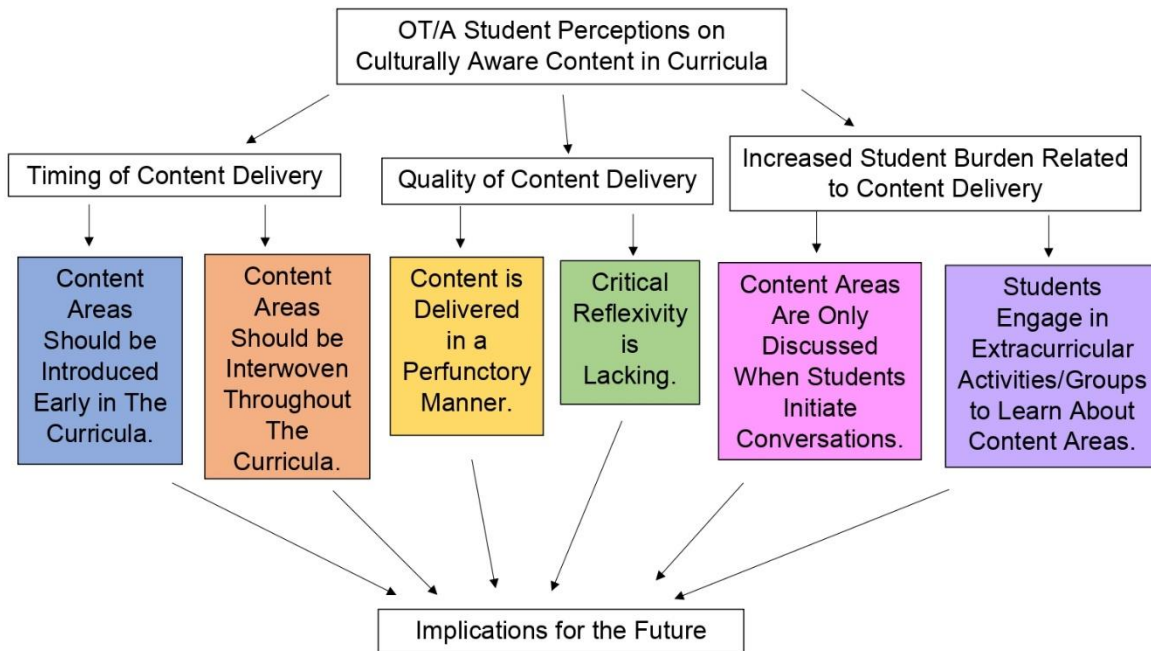
Figure 4*Different Methods of Delivery by Educational Program Location***Open-Ended Responses**

As demonstrated in Table 2, the students reported that lectures, activities, and discussions were the most frequently used educational delivery methods to address culturally aware content. Open-ended survey responses yielded rich perspectives on curricula content and delivery methods related to DEI, SDOH, and intersectionality. In addition to Figures 2 and 3 demonstrating the lack of reported delivery methods used to address culturally aware content, students characterized these methods as being infrequent and lacking a critical lens within their respective courses.

Table 2*Content Delivery Method Frequencies*

	n	(%)
Please describe the content and/or methods of addressing the DEI issues mentioned above. (More than one code could be assigned).		
Lectures	222	41.7
Activities	244	45.9
Discussions	231	43.4
Student-led Efforts	27	5.1
Incomplete/Not Applicable	92	17.3
Total N	532	100
Please describe the content and/or methods of addressing the SDOH context areas mentioned above. (More than one code could be assigned).		
Lectures	165	41.4
Activities	179	45.8
Discussions	158	40.4
Student-led Efforts	12	3.07
Incomplete/Not Applicable	77	19.7
Total N	391	100
Please describe the content and/or methods of addressing intersectionality. (More than one code could be assigned).		
Lectures	65	34.2
Activities	49	25.8
Discussions	71	37.4
Student-led Efforts	5	2.63
Incomplete/Not Applicable	54	28.4
Total N	190	100

Figure 5 is a concept map that illustrates student open-ended responses based on their perceptions of content delivery in their curricula. Overall, the open-ended responses revealed that students identified three major components related to culturally aware content delivery including the timing, quality, and student burden. The concept map also highlights student perceived implications for the future if curricular changes are not implemented.

Figure 5*Student Perceptions Concept Map****Timing of Content Delivery***

Reportedly, there were inconsistencies regarding the timing of educational content delivery of culturally aware topics (i.e., DEI, SDOH, and intersectionality). Some students conveyed receiving content early in their program while others shared not having content early enough. Many students expressed a strong desire to have culturally aware topics embedded throughout their OT/OTA curricula beginning in their foundational courses and beyond (e.g., Level I and II fieldwork, capstone experience or project, post-professional year).

Content Areas Should be Introduced Early in the Curricula. Some students described that these topics were addressed as early as their first semester in their respective educational programs; whereas others did not explicitly state when content was delivered but expressed the need to be exposed to these content areas earlier within their educational program. A first-year entry-level master's student from the South mentioned, "I feel like my program has done a phenomenal job with this. In our very first day of class, we were discussing how all of these issues and topics impact ourselves

and our future clients.” One second-year, entry-level doctorate student from the Northeast expressed the need to have cultural awareness topics addressed earlier within their educational program by expressing, “We are lacking quality education on these important topics. They should be integrated into the classroom as early as first semester.”

Content Areas Should be Interwoven Throughout the Curricula. Students shared their desire to have the educational content delivered consistently throughout their curricula. A third-year entry-level master’s student from the West stated, “Would love to learn more about this topic in my OT Program. I wish that there were classes or that they incorporated content in each class regarding [*sic*] to this topic.” One second-year entry-level doctorate student from the Midwest described how culturally aware content was embedded in different experiences throughout their curricula:

Our program has done an excellent job at educating our class on the SDOH and implications in practice. SDOH have been addressed every semester thus far through case studies, in-class discussions, and larger projects. We also address SDOH within our fieldwork-related reflection assignments.

A third-year master’s-level student from the Midwest detailed their experience with the curricula:

Information about these topics would have been enhanced by increased incorporation of diverse voices leading instruction - not only on the lectures/projects designated for these topics, but throughout our curriculum. These issues must be integrated throughout our coursework (rather than covered as discrete segments) in order to better reflect the interwoven nature with which they impact the lives of individuals and populations.

Quality of Content Delivery

Many students highlighted their role as advocates on behalf of their clients and themselves. Furthermore, some students expressed that the field of OT emphasizes the use of a holistic approach when developing therapeutic goals and interventions. Some students, however, revealed they received cursory education on DEI, SDOH, and intersectionality topics. Several students expressed their belief that addressing these educational topics using a more in-depth approach would empower them to be more prepared to act as advocates on behalf of their clients, such as those who identify as being a part of historically marginalized groups.

Content is Delivered in a Perfunctory Manner. Various students across the nation described their concerns about the need for OT curricular changes in order to further address DEI, SDOH, and intersectionality topics throughout their educational program curricula. Reportedly, there were instances where program instructors, faculty, and staff missed the opportunity to address DEI, SDOH, and intersectionality topics across educational environments. A third-year accelerated master’s to doctorate student from the West described, “These topics would be mentioned on a few slides here or there or used in some case studies, but there was never any critical analysis or thoughtfulness that was encouraged.” One fourth-year entry-level master’s program

student from the Northeast shared their experience revealing: “Although it has been brought up in our class, I don’t feel like it’s been discussed in great enough detail nor I don’t feel i [sic] could apply it in practice. I really wish they could dedicate more time and resources to teaching these important issues”.

Critical Reflexivity is Lacking. Students also highlighted the need for the opportunity for instructors to receive training and education that empowers them to facilitate sensitive discussions across educational environments. A first-year OTA student from the Northeast expressed, “Content seems to skim and not invite one to delve into possibly uncomfortable situations.” A third-year entry-level doctorate student from the West detailed their experiences by stating:

OT professors are not always trained enough or supplied with enough resources to guide sensitive conversations and maintain a safe space for students. I think they would benefit from additional training and/or assistance from outside professionals to manage these topics with sensitivity and respect.

A third-year accelerated master’s to doctorate student from the West also recounted: Race & Ethnicity: professors (always white women) based any discussion of race & ethnicity off of stereotypes. One professor even said “I know this is awkward, but it’s an ACOTE [Accreditation Council for Occupational Therapy Education] standard I have to talk about”[sic] after going through different racial categories and talking about how they might age differently based off of stereotypes like Black people finding strength through church. Conversely, my experience of delivery of gender expression & sexual identity content was really great because we had professors who were part of the queer community who were very passionate about delivering this content based on providing perspectives from multiple lived experiences.

Increased Student Burden Related to Content Delivery

Some students recounted their experiences with feeling responsible for self-advocating and initiating discussions related to DEI, SDOH, and intersectionality topics across environments. Many of them conveyed their sense of obligation to participate in student-led efforts, which were characterized as engaging in extracurricular student organizations. In some instances, students explained that student-led initiatives accommodated the lack of their instructors addressing these educational content areas.

Content Areas Are Only Discussed When Students Initiate Conversations.

Some students shared that student initiatives were the driving force that facilitated meaningful conversations to surface. A second-year entry-level master’s student from the South revealed, “From my perspective, this is a topic that students bring up and force the conversation-- not a topic that is purposefully the subject in a lecture. Professors do not shy away from the subject once it has surfaced.” Another student in their second year of an entry-level doctorate program from the West described their experience, “It’s mainly been brought up by individual students who care about these issues or have the courage to share experiences of less socioeconomic privilege.”

Students Engage in Extracurricular Activities/Groups to Learn About Content Areas. There were many instances where students reported that they participated in optional discussions, or activities about DEI, SDOH, or intersectionality topics outside of the classroom. A second-year entry-level doctorate student, from the South described, “I am very passionate about these topics and wish they were talked about more in my program. The faculty tends to put a lot of it on our chapter of COTAD [Coalition of Occupational Therapy Advocates for Diversity] which only makes the material optional.” Another student, in their second year of an entry-level master’s program from the West, recounted, “The students in my program are all very interested in these topics, but we’ve had to seek outside resources to educate ourselves as they are not embedded into the program.”

Implications for the Future

Students revealed they recognize the impact that culturally aware topics have on the field of OT service provision and the need for comprehensive reform within their curricula. One student in their third year of an entry-level master’s program from the West, explained their experiences on DEI, SDOH, and intersectionality topics in curricula by explaining, “We need to include these topics in all OT curriculum nationwide. Occupational therapists claim to utilize a holistic perspective and consider the dynamic nature of human life, yet we are failing to incorporate these concepts into our curriculum.” A first-year entry-level doctorate student from the Northeast expressed their perceptions on content delivery in their curricula:

It's been deeply disappointing. There's obviously effort being made by well-intentioned people, but you guys need actual experts and people with lived experience to have more significant [*sic*] roles in developing curriculum. Because it's about 20 years behind at this point, but it seems like the professors think it's innovative to just mention racism.

Other students emphasized the importance of education on DEI, SDOH, and intersectionality topics in their programs. Many students also expressed how education on these topics can lead to advocacy efforts that empower OT practitioners to be more inclusive when working with clients. A third-year entry level combined bachelor’s to master’s student from the Midwest expressed their desire for the OT profession by detailing:

Frankly, I wish there were more. In light of our nation's recent news on social justice, I believe that as HCP we need to be better educated and understanding of microaggressions that happen in everyday life, as well as medical practice. If our profession is aimed at providing social justice and advocating for others, we need to be taught this more in school. I believe these issues are just as important as learning our hands-on skills and being competent in the OT process.

Some students explored the possible trajectory of the OT profession if DEI, SDOH, and intersectionality curricula reform is not implemented. A second-year entry-level doctorate student from the West explained, “I think all OT and OTA programs should be taking a hard look at their curricula right now to ensure that our profession doesn't

continue to perpetuate harm and create disparities.” Furthermore, a recent graduate from an entry-level master’s program from the Midwest, conveyed:

It is not conventional or typical for educational systems, who also participate in systemic oppression, to name and explore the systemic oppression within and outside their walls. This has not worked for us and it will not if we remain silenced. Our field is rooted in advocacy, thus it is our responsibility to see it through with honesty and integrity.

Discussion

The authors anticipated that the content delivery methods OT/OTA students received would evolve throughout their respective programs. They envisioned content delivery would align with Bloom’s Revised Taxonomy in which students learned basic concepts of DEI, SDOH, and intersectionality in their first semesters (Anderson et al., 2001). Students would then progress to applying and analyzing these concepts in a clinical context during Level I and II fieldwork (Anderson et al., 2001). Finally, students would acquire the ability to critique existing practices and the preparation to create new initiatives to advance culturally informed skilled OT services (Anderson et al., 2001). Survey results, however, indicated OT/OTA students received DEI-related content areas primarily through lectures, activities, and discussions, and that the content quality and delivery methods did not progress to higher levels of learning experiences. Instead, students received similar exposure in relation to the amount and type of delivery method used to address culturally aware content throughout their education regardless of the program year (see Figure 2) or educational program type (see Figure 3).

The open-ended results revealed that students wanted education on these topics to be discussed in-depth and throughout the entire program, beginning in the first semester. Although some students took on the role of an advocate for the content, it is imperative to recognize potential burdens associated with student-led efforts. A student’s primary role is to learn and gain experiences from curricula and should not be placed in circumstances that require them to take on the role of the educator. Having the burden fall on students to educate peers on these important topics in the classroom, while concurrently undertaking standard school responsibilities, may lead to burnout (Amuzie & Jia, 2021).

Existing evidence supports moving beyond a “knowledge-based” delivery approach to an active learning approach to improve OT/OTA students’ abilities to provide healthcare to patients from all backgrounds. Davis et al. (2021) trialed a two-day “experiential curriculum” with undergraduate medical students and found that “intensive faculty development and incorporating diversity concepts into fundamental communication skills training were necessary to perpetuate learning” through the “Differences Matter Orientation” or DMO (p. 1). In this approach, DEI experiential curriculum were provided before the start of the formal medical school curriculum. The results from the “Differences Matter Orientation” suggested that more active and application-based learning activities would encourage higher-level thinking and should be provided to students early and often, to include a critical lens and action-oriented approach (Anderson et. al., 2001; Davis et al., 2021). Olson and Burks (2022) also recommended

using tools such as mindfulness, personal narratives, and “relationship-centered skills” to increase communication and decrease implicit bias alongside small group activities that incorporated faculty and student perspectives of “difference” (p. 4). This unique approach provided a critical starting point to address key skills, evidence, and concepts that demonstrated the need for DEI training.

The intentional training of faculty is required to enact changes in student perceptions (Dogra et al., 2010). “How we interact with our students in the classroom and practice settings is the key to increasing awareness of and addressing biases, as well as breaking down systematic racism” (Olson & Burks, 2022, p. 6). However, it is fundamental to recognize that faculty must be provided with the appropriate tools and resources to enact these necessary changes. Ultimately, it is the instructor’s responsibility to ensure a safe learning environment for all learners (Olson & Burks, 2022). Access to financial resources and dedicated time must be allocated by academic institutions to support intensive faculty training. Appendix B provides resources and strategies based upon theoretical perspectives and frameworks to consider when developing content to support active and informed OT/OTA curriculums. While not exhaustive nor prescriptive, it is anticipated that the provided suggestions, many of which are freely available, will serve as a springboard to being and becoming inclusive educators.

Limitations

Limitations of this retrospective survey study design include the lack of psychometrics for question development. Another limitation was the lack of consensus across the literature regarding key terms related to the survey question content areas. Therefore, broad definitions of DEI, SDOH, and intersectionality were defined using the Merriam-Webster (n.d-a, n.d.-b) dictionary, however, the term DEI was synonymous with diversity in this survey. This highlights the need to reach a consensus in terminology to provide consistency and clarity when developing and implementing curricula addressing educational content that addresses DEI, SDOH, and intersectionality.

The survey was deployed during a tumultuous time in the country and the survey developers determined that collecting key demographic information might have deterred a respondent from completing the survey as students are considered a vulnerable population. Determining these demographic markers would have helped identify how the respondents’ experiences within their curricula may have been influenced. Finally, demographic information including the respondents’ age, sexual/gender identity, race/ethnic identity, disability status, socioeconomic status, status as a traditional or non-traditional student, and primary language was not collected. Therefore, these potentially confounding factors could not be accounted for.

Conclusion

The survey results should be a call to action to educators that OT/OTA students across the United States perceived their education on DEI, SDOH, and intersectionality to be insufficient. Students expressed their desire for improvements in how DEI, SDOH, and intersectionality topics were addressed in their educational programs. Some students

revealed that they recognize the impact that these topics have on the field of OT service provision and the need for comprehensive reform within their curricula. Other students expressed the importance of education on these topics and how they can lead to advocacy endeavors that empower OT practitioners to be more inclusive when working with clients.

Occupational therapy educators must take a holistic approach to improve their delivery of educational content and support the students' learning in experiential and didactic settings (Johnson et al., 2022). Appendix B provides an overview of pedagogical recommendations based on Bloom's Revised Taxonomy, Fink's Significant Learning Outcomes, and Universal Design Learning (UDL), among other frameworks (Anderson et al., 2001; Fink, 2013; Sanger, 2020). The authors recommend that OT educators provide students with learning opportunities that simultaneously require higher levels of cognition, are delivered via multiple content-driven methods of engagement, foster a sense of belonging, are accessible and equitable, and empower students to provide feedback and collaborate with educators (Anderson et al., 2001; Fink, 2013; Sanger, 2020).

Furthermore, the issues related to the homogenous white and female gender identity makeup of the OT profession continue to perpetuate disparities by including some students while simultaneously excluding others (Kitchens et al., 2022; Zerwic et al., 2018). At the time of this publication, OT/OTA programs are not required to demonstrate intent regarding the recruitment and retention of individuals from historically marginalized backgrounds (ACOTE, 2018; Brown et al., 2021). Brown et al. (2021) found that students from historically marginalized backgrounds stated their programs failed to address the multiple barriers that they experienced during the admissions process and throughout their OT/OTA programs. Therefore, the authors recommend that the ACOTE standards be revised to require documented evidence of recruitment and retention efforts of students from historically marginalized backgrounds within program-specific strategic plans (Brown et al., 2021).

At the time of this publication, there is a second group of investigators analyzing the results of a companion survey. The companion survey was deployed nationally by the AOTA COE in the Summer of 2020 to faculty of OT/OTA programs to understand their perceptions regarding the delivery of culturally aware educational content within OT/OTA curricula. Future studies may also want to examine how holistic admissions practices impact efforts to diversify the demographic composition of OT/OTA cohorts, and thereby the future workforce. As Edgoose et al. (2018) stated, "diversity of the healthcare workforce is dependent upon the diversity of health professions educational programs" (p. 60).

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Appendix A

Diversity, Equity and Inclusion Curriculum National Student Survey

The Commission on Education (COE) and the Academic Education Special Interest Section (AESIS) of the AOTA is seeking candid and constructive input regarding the delivery of diversity, equity, and inclusion (DEI) content in OT/OTA curricula across the nation. We are partnering with Thomas Jefferson University who provided the platform to collect and analyze the data. Our aim is to gather information from OT/OTA programs to include OT/OTA students in order to inform the development of educational materials to support programs across the nation. Please share this survey with your classmates as we work together to identify, share and develop resources to support this initiative.

Thank you!

Question 1: I am a student in a/an:

- OTA program
- Entry-level combined bachelors/master program
- Master's program
- Entry-level doctorate program
- Other (text entry)

Question 2: My program is located in the following state:

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana

- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- Washington D.C
- West Virginia
- Wisconsin
- Wyoming

Question 3: I am currently a:

- First year student
- Second year student
- Third year student
- Other (text entry)

Question 4: In my OT education thus far, I have received content on the areas of diversity*, equity and inclusion (DEI). Please check all that apply:

*Diversity is defined by Merriam-Webster (n.d.) as the "the condition of having or being composed of different elements; the inclusion of different types of people (such as people of different races or cultures) in a group or organization"

Merriam-Webster. (n.d.). Diversity. In *Merriam-Webster.com dictionary*. Retrieved September 2, 2020, from <https://www.merriam-webster.com/dictionary/diversity>

- Yes
- No
- Not sure

Question 4a: During which portion of your curriculum was diversity, equity, and inclusion (DEI) content area addressed (select all that apply):

During which portion of your curriculum was diversity, equity, and inclusion (DEI) content area addressed (select all that apply):

- Classroom Coursework
- FW Level I
- FW Level II
- Doctorate Capstone Experience and/or Project

Question 4b: Answer the following statements using the 1-5 Likert scale in relation to the diversity, equity, and inclusion (DEI) content you have had thus far in your OT/OTA curriculum.

Question 4c: Please describe the content and/or methods of addressing the DEI issues mentioned above. (text entry)

Question 4d: If there are any other DEI areas that your program addresses that were not previously mentioned, please list it now. (text entry)

Question 5: In my OT education thus far, I have received content on the social determinants of health (SDOH)*. Please select all that apply:

*The CDC defines the social determinants of health (SDOH) as "conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life-risks and outcomes".

- Yes
- No
- Not sure

Question 5a: If yes was selected, during which portion of your curriculum was social determinants of health (SDOH) content area addressed (select all that apply):

- Classroom Coursework
- FW Level I
- FW Level II
- Doctorate Capstone Experience and/or Project

Question 5b: Answer the following statements using the 1-5 Likert scale in relation to the following social determinants of health (SDOH) contexts (both environmental and personal) content you have had thus far in your OT/OTA curriculum.

Question 5c: Please describe the content and/or methods of addressing the SDOH context areas mentioned above. (text entry)

Question 5d: If there are any other SDOH area that your program addresses that were not previously mentioned, please list it now. (text entry)

Question 6: In my OT education thus far, I have received content on the topic of intersectionality*/ cumulative trauma as a result of various forms of discrimination (i.e., racism, sexism, classism). Please select all that apply:

*Intersectionality is defined by Merriam-Webster (n.d) as "the complex, cumulative way in which the effects of multiple forms of discrimination (such as racism, sexism, and classism) combine, overlap, or intersect especially in the experiences of marginalized individuals or groups"

Merriam-Webster. (n.d.). Intersectionality. In *Merriam-Webster.com dictionary*. Retrieved September 2, 2020, from <https://www.merriam-webster.com/dictionary/intersectionality>

- Yes
- No
- Not sure

Question 6a: If yes was selected, during which portion of your curriculum was intersectionality/ cumulative trauma content area addressed (select all that apply):

- Classroom Coursework
- FW Level I
- FW Level II
- Doctorate Capstone Experience and/or Project

Question 6b: The content provided on issues related to intersectionality/cumulative trauma is of high quality.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Question 6c: Please describe the content and/or methods of addressing intersectionality. (text entry)

Question 7: Please provide us with any additional comments related to the topics of diversity, equity, and inclusion (DEI), social determinants of health (SDOH), and intersectionality in your OT/OTA program: (text entry)

Question 8: If you wish to be part of a COE/AESIS task group to develop materials to support DEI content in OT curriculum please share your name and email information in the text box below: (text entry)

End of Survey

Appendix B

Perspectives and Solutions for Educators

Overview of Perspectives and Possible Applications to Consider in the Classroom:	
Bloom's Revised Taxonomy (Anderson et al., 2001)	<p>A Hierarchical Framework for Cognition and Learning Activities Involves terms such as “remembering” “understanding” “applying” “analyzing” “evaluating” and “creating” to guide the teaching-learning process (Teach Thought Staff, n.d.).</p> <p>Application: Framework applied to develop a DEI thread every semester of the program that gradually builds upon prior content. For example, semester one may include active learning tasks that encourage remembering key terms and understanding their impact (such as the importance of teaching and using inclusive language as an OT/OTA practitioner). The final semesters may include team building and case/poetry/video analysis and solution-based activities that promote analysis, evaluation & creation.</p>
Fink's Taxonomy of Significant Learning (2003)	<p>A taxonomy that uses terms such as “foundational knowledge” “application” “integration” “human dimension” “caring” and “learning how to learn”. These terms relate to critical, creative, and practical thinking that includes metacognition. The end product is that of “significant learning” A user-friendly template structures the user to take into account the contextual and learning factors, the learning situation, the nature of the subject, characteristics of the learner and teacher as well as learning goals (Fink, 2003; 2013). The Fink Taxonomy (Fink 2003; 2013), relates to the OTPF-4 (AOTA, 2020c) as it takes into consideration foundational knowledge, goals, human dimensions along with the term “care” that considers one's feelings, interests, and ideas.</p> <p>Application: Taxonomy can support effective and meaningful course design and instructional approaches that leave a lasting impression or “significance” to the learner. Fink's taxonomy can contribute to course and specific DEI and justice content development with a focus on situational factors that may affect the entire curriculum as well as challenges with the course itself. Use of the backward design approach that strives to deliver “rich” learning experiences and “in-depth” reflection and dialogue. This perspective can be utilized for individual course planning or for use with a DEI and justice curriculum thread throughout the curriculum.</p>

<p>Culturally Responsive Teaching (CRT) also termed Culturally Relevant Teaching or Culturally Responsive Pedagogy</p>	<p>This approach involves the following: Knowing your students (their prior knowledge), being aware of your personal biases, transforming traditional pedagogy and curriculum, creating a meaningful methodology for your course(s), demonstrating respect and setting up a supportive classroom culture & linking all of these concepts to the community (Burnham, 2020; Singhal & Gulati, 2020).</p> <p>Culturally Responsive Pedagogy are “teaching practices that attend to the specific cultural characteristics that make students different from one another and from the teacher...” the emphasis is on “multicultural education for all” (Rychly, L., & Graves, 2012, p. 44)</p> <p>These concepts can assist the educator to move beyond the age-old traditional pedagogy of teaching, to teaching students to include an empathic “worldwide, multicultural community” and pushes the educator to look beyond their own lived experience lens. These methods strive to understand the past and current experiences of the learners within a social context. Strategies can range from the inclusion of LGBTQ textbooks and/or readings/quiz questions or the use of guest speakers to building a classroom environment that involves all learners. If for example, you are teaching about the history of the OT profession, discuss how the original “philosophy” is still important today but attempt to use the “cultural capital” in the classroom to see if anything “new” can be added to the founding beliefs of the profession based on the social-political climate of today.</p>
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<p>Universal Design for Learning (UDL) (Center for Applied Special Technology [CAST] n.d., 2018).</p>	<p>This framework supports the construction of learning activities to “proactively meet the needs of all learners”. The framework sees barriers to learning as a result of the design of the environment. Not the learner (student). UDL incorporates evidence-based educational practices the person and technology to meet the needs of all. Emphasis is on all learners (the brain). Learners must be aware of the goal and be in a setting of flexibility that provides ease of access to materials at the start of the educational session. Keys are active in nature and involve, Engagement, Representation & Action/Expression (https://www.understood.org/) and (CAST, n.d., 2018)</p>
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	<p>Use the evidence-based strategy of “flexible grouping” to help students to understand the why (engagement), what (representation), and how (action/expression) of learning. “Put students in temporary groups to work together for only as long as is needed for them to develop an identified skill or to complete a learning activity such as addressing the following after a lecture on burn care and OT ”... what might be the most effective scar management approach to utilize for a young adult BIPOC post a partial thickness burn injury” (based on skin tone and re-pigmentation of skin post-injury) (Morin, n.d.).</p> <p>Use of stories by people with lived experiences to “design antiracist learning environments” to facilitate learning amongst all utilize recordings/webinars (CAST, 2020).</p>
<p>Trauma-Informed Care Perspectives</p>	<p>Consider the use of evidence-based resources and links (Centers for Disease Control and Prevention [CDC], 2020; 2021a) to serve as conversation starters and/or to facilitate deep reflection.</p> <p>Review the history and use of the Adverse Childhood Experiences Study (ACEs) to discuss the impact on trauma on development (CDC, 2021b).</p> <p>Also consider teaching about the Social Determinants of Health (SDOH) (CDC, 2020; Willems et al., 2016).</p> <p>Watch “A Tale of Two Zip Codes” (Health Happens Here, 2016) as it relates to health disparities, inequities, and chronic conditions in historically marginalized communities that OT practitioners can address through health and wellness programming.</p>

<p>St. Olaf Diversity, Equity, and Inclusion Theory of Transformation</p>	<p>Diversity, Equity, Inclusion & Anti-Racism.</p> <p>Provides definitions and outcomes for action. The goal of St. Olaf theory is to guide DEI strategic plan, analysis of student, faculty, and staff experience and perform actions to become more diverse, equitable, inclusive, and anti-racist that will, in turn, impact the community (St. Olaf College, n.d.).</p>
	<p>Provides a strategic plan with measurable goals/outcomes to support high-impact education for all students to include students from underrepresented groups (St. Olaf College, 2020).</p>

Teaching & Learning Resources:	
<p>Incorporate DEI (diversity, equity, inclusion) and justice threads in the OT/OTA curriculum and utilize them as conversation starters in the classroom during the first semester of the program. Utilize engaging and interactive reflection-based activities that lead up to deep/rich classroom discussion with solution-oriented activities throughout the curriculum.</p>	
<p>For educators with a focus on anti-racist practices. Emphasis is on K-12 but can easily be adapted to higher education</p> <p>(https://www.learningforjustice.org/)</p>	<p>Includes active teaching/learning tools to include lesson plan builders, “challenge the text” prompts, film kits, posters and more.</p> <p>Also refer to</p> <p>Sterman et al. (2022) which provides a toolkit for occupational therapy educators.</p>
<p>Document to support educators to be inclusive in the higher education classroom. The focus is on Universal Design for Learning and Culturally Responsive Teaching (University of Delaware, 2016).</p>	<p>Provides information to guide inclusive pedagogies and strategies to “practice inclusive teaching”.</p>
<p>The article provides a student’s lived experience while matriculating through an occupational therapy doctoral program and navigating unconscious bias in the classroom (Meda, 2021).</p>	<p>This article can serve as a starting point for educators to reflect on how to create inclusive classroom environments and the impact it can have on a student when that is not upheld.</p>
<p>The website includes resources that lead to “deep thinking and moral imagination, social courage and joy, to renew inner life, outer life, and life together.”</p> <p>(https://onbeing.org/our-story/)</p>	<p>Consists of public radio downloadable DEI resources and podcast tools to utilize in the classroom, “experience” poetry, library resources.</p>
<p>The American Association of Colleges and Universities (AACU) is a global membership organization dedicated to advancing the vitality and democratic purposes of undergraduate liberal education. Higher education teaching/learning resource.</p>	<p>Articles/Books available to assist college campuses to “serve as a catalyst and facilitator for innovations that improve educational quality and equity and that support the success of all students.” Tools</p>

<p>(https://www.aacu.org) and (American Association of Colleges and Universities [AACU], n.d.-a).</p>	<p>such as the “authentic assessment” strive to improve teaching, learning, and student access (AACU, n.d.-b).</p>
<p>The University of Michigan (n.d.-a, n.d.-b, 2021) provides a variety of Inclusive Teaching resources to incorporate into the higher education classroom. The goal is to support the learning of all students.</p>	<p>The website provides strategy and solution-oriented tools (such as blogs, and the use of “theater”) that centers on equity-focused teaching, responding to difficult moments, and “setting the tone” for inclusion in the classroom. Topics include meaning lecture capture, team teaching & creating useful course evaluations.</p> <p>Russell (CBS Mornings, 2022) is an exemplar of a teacher who focuses on student success and engagement while providing an emphasis on navigating difficult conversations. Russel provides an example of the use of “three pictures” and the use of stories to teach others, his goal is for “students to see themselves in the curriculum...and that starts with faculty and staff...”</p>
<p>Well-known teaching experts in higher education such as Stephen Brookfield have written textbooks and chapters that can serve to educate the educator on anti-racist behaviors and actions in the classroom.</p> <p>(https://muse.union.edu/faculty-deib/books/)</p> <p>(https://www.igi-global.com/book/research-anthology-racial-equity-identity/290062)</p> <p>(https://www.igi-global.com/chapter/repressive-tolerance-and-the-management-of-diversity/296999)</p>	<p>This chapter by Brookfield (2016) examines the use of “personal narratives” to “teach about the ways structural and systematic racism is internalized and enacted” An emphasis is placed upon Brookfield’s own “illustration of racism”.</p>