

---

2023

## Belonging in Graduate Health Professions Education- Implications for Occupational Therapy Education: A Scoping Review

Quinn P. Tyminski  
*Washington University School of Medicine*

Jenna N. Johnston  
*Washington University in St. Louis*

Vicky Hung  
*Washington University School of Medicine*

Jenna Gopman  
*Washington University School of Medicine*

Follow this and additional works at: <https://encompass.eku.edu/jote>



Part of the [Disability and Equity in Education Commons](#), [Higher Education Commons](#), [Occupational Therapy Commons](#), and the [Other Education Commons](#)

---

### Recommended Citation

Tyminski, Q. P., Johnston, J. N., Hung, V., & Gopman, J. (2023). Belonging in Graduate Health Professions Education- Implications for Occupational Therapy Education: A Scoping Review. *Journal of Occupational Therapy Education*, 7 (4). <https://doi.org/10.26681/jote.2023.070406>

This Original Research is brought to you for free and open access by the Journals at Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact [laura.edwards@eku.edu](mailto:laura.edwards@eku.edu).

---

## Belonging in Graduate Health Professions Education- Implications for Occupational Therapy Education: A Scoping Review

### Abstract

Individuals who report a high sense of belonging with their academic institution demonstrate increased levels of academic success, as measured by greater class attendance, increased appropriate classroom behaviors, and better mental health and self-concept. The available literature on this topic focuses minimally on sense of belonging in graduate health professions education and available evidence is even more sparse specific to occupational therapy education. Thus, the aim of this study was to conduct a scoping review to gather foundational knowledge regarding barriers and facilitators to belonging in graduate health professions education to determine implications for occupational therapy education. A total of 202 studies were identified; 70 remained after the title and abstract review and removal of duplicates. After reading the full text, 61 articles were removed due to their limited exploration of belonging or inability to answer the proposed research question regarding barriers and facilitators to belonging. The final sample of 9 articles provided information about barriers and facilitators to a sense of belonging across health professions (occupational therapy, physical therapy, & medicine) graduate education. Qualitative content analysis of these articles revealed three themes that contributed both barriers and facilitators to belonging in graduate health professions education: (1) environment, (2) relationships, and (3) personal factors. As the call to diversify the profession brings in a greater number of students from historically minoritized identities, it is essential that all students experience belonging in their academic programs to increase success in their education and, as a result, in their future healthcare professions.

### Keywords

Belonging, scoping review, occupational therapy education, graduate health professions education

### Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

# JOTE

Journal of Occupational  
Therapy Education

Volume 7, Issue 4

---

## **Belonging in Higher Education - Implications for Occupational Therapy Education: A Scoping Review**

---

Quinn P. Tyminski, OTD, OTR/L, BCMH;

Jenna N. Johnston, OTS; Vicky Hung, OTS; and Jenna Gopman, OTS

Washington University School of Medicine

United States

---

### **ABSTRACT**

Individuals who report a high sense of belonging with their academic institution demonstrate increased levels of academic success, as measured by greater class attendance, increased appropriate classroom behaviors, and better mental health and self-concept. The available literature on this topic focuses minimally on sense of belonging in graduate health professions education and available evidence is even more sparse specific to occupational therapy education. Thus, the aim of this study was to conduct a scoping review to gather foundational knowledge regarding barriers and facilitators to belonging in graduate health professions education to determine implications for occupational therapy education. A total of 202 studies were identified; 70 remained after the title and abstract review and removal of duplicates. After reading the full text, 61 articles were removed due to their limited exploration of belonging or inability to answer the proposed research question regarding barriers and facilitators to belonging. The final sample of 9 articles provided information about barriers and facilitators to a sense of belonging across health professions (occupational therapy, physical therapy, & medicine) graduate education. Qualitative content analysis of these articles revealed three themes that contributed both barriers and facilitators to belonging in graduate health professions education: (1) environment, (2) relationships, and (3) personal factors. As the call to diversify the profession brings in a greater number of students from historically minoritized identities, it is essential that all students experience belonging in their academic programs to increase success in their education and, as a result, in their future healthcare professions.

---

## **Introduction**

The concept of belonging has been studied across a variety of disciplines including sociology, psychology, education, and healthcare. Due to the interdisciplinary nature of the topic, the context and definition of the term belonging is not established across the literature. Some disciplines view belonging as a passive experience while others refer to belonging as an active, engaging, event or series of events (Mahar et al., 2013). Recently Mahar et al. (2013) attempted to conceptualize the experience of belonging across healthcare disciplines to provide a more comprehensive understanding of the experience. Based on their synthesis of the literature, Mahar et al. (2013) operationalized belonging as “a personal feeling or perception of an individual as they relate to or interact with others, as a group, or a system” (p.1029). In an educational context, belonging is most often cited as being defined by Goodenow (1993) as “the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment” (p. 80). Regardless of the definition, the benefits of experiencing a sense of belonging are highly supported in the literature. Primarily, feeling a sense of belonging is agreed to be an innate human need and is linked to improved health outcomes (Allen et al., 2021; Hale et al., 2005). Specifically, social connectedness as part of belonging is heavily supported in the literature as improving both the physical and mental health of individuals (Anant, 1966).

Within educational contexts, experiencing a sense of belonging contributes to a student’s overall success. Individuals who self-report a high sense of belonging with their academic institution demonstrate increased levels of academic success, including attending more classes, increased appropriate behaviors, mental health, and self-concept (Allen et al., 2018; Neel & Fuligni, 2013). Students who feel a sense of belonging also engage in fewer risky social behaviors and experience lower levels of emotional distress (Allen et al., 2018). Often addressed in educational literature is the concept of belonging uncertainty, which is defined as “the general concern about the quality of one’s social relationships in an academic setting” (Höhne & Zander, 2019, p. 1). Belonging uncertainty is often associated with educational stereotypes (i.e., women are less successful in STEM fields), leading students to doubt their ability to fit in due to preconceived bias toward themselves and a self-fulfilling prophecy (Höhne & Zander, 2019). Students from historically minoritized identities receive contextual cues that often disaffirm their sense of belonging. Instances of racial discrimination, micro or macroaggressions, and bias are common themes across the literature addressing the barriers to belonging for students from historically minoritized identities. Thus, academic institutions may be viewed as spaces where they must hide their association with certain identities to succeed, thereby reducing their sense of belonging (Cohen & Garcia, 2008; Cook et al., 2012).

### **Belonging in Occupational Therapy Education**

The occupational therapy profession has historically been dominated by White, middle-class, and female identities. In recent years, members of the occupational therapy community have pushed to increase diversity in the profession, leading many occupational therapy programs to admit a greater number of diverse students and hire more diverse staff and faculty members (Brown et al., 2021). Despite this increase in the number of diverse individuals, occupational therapy programs often do not implement the necessary culture shift away from the White, middle-class ideals of the profession, resulting in spaces that do not include or foster belonging for all (Taff & Blash, 2017). Recently, researchers and policymakers within occupational therapy education have begun to push for greater diversity efforts that truly make a difference in the experiences of diverse students, consistent with the larger societal push for diversity and inclusion (Hammell, 2019). Yet, often ignored in the occupational therapy discussion about diversity and inclusion is the topic of belonging.

One potential reason for the lack of research regarding sense of belonging in occupational therapy education could be that it is common to combine the concepts of belonging and inclusion. In educational research, the concept of belonging is often discussed in tandem with inclusion; in fact, there is no discussion about the difference between the two phenomena in the available literature (Kovač & Vaala, 2021). To differentiate between the two concepts, Power (2013) defined belonging as an individual's feeling of acceptance, whereas inclusion is defined by the behaviors and culture of an organization. Belonging is essential to success in higher education and in students' future professional careers (Holloway-Friesen, 2021). Thus, while the current climate of inclusion-related changes in occupational therapy education is a necessary step towards diversifying the profession, focusing on a sense of belonging may also be a critical component.

The need for a sense of belonging has been rarely acknowledged and limitedly studied concerning changing inclusion practices, in graduate health professions and occupational therapy education. The emphasis of the present study is belonging, with a focus on keeping belonging separate from inclusion and other related concepts. Previous studies have included belonging in tandem with inclusion, muddling the results of the two topics. Thus, the aim of this study was to conduct a scoping review of the literature on graduate health professions education to provide a foundation regarding belonging and note implications for occupational therapy education. The research question guiding this scoping review was "what are the barriers and facilitators to belonging in graduate health professions education?"

### **Methods**

The primary research team (comprised of the four co-authors) utilized Arksey and O'Malley's (2005) approach and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses scoping review checklist to guide the methodology for this scoping review (PRISMA-ScR, Tricco et al., 2018). As per Peters et al., (2021), "the PRISMA-ScR is ...a complementary checklist to support comprehensive reporting of methods

and findings that can be used alongside other methodological guidance” (p.3); thus, the research team applied both frameworks. The PRISMA flow diagram for systematic reviews was included to provide transparency in the study selection process (Page et al., 2021).

### **Stage 1: Identifying the Research Question**

The purpose of this review was to survey the graduate health professions literature to better understand the factors that support or undermine a sense of belonging within occupational therapy education. The research team identified the research question, “what are the barriers and facilitators to belonging in graduate health professions education?” to guide this investigation.

### **Stage 2: Identifying Relevant Studies**

Due to a limited number of studies relating to the concept of belonging in occupational therapy education, it was necessary to utilize literature from other graduate-level health professions to inform the topic. To encompass multiple disciplines, the search terms included belonging OR belong OR sense of belonging AND occupational therapy education OR graduate medical education OR physical therapy.

The data search included PubMed, EBSCOHost, *Educational Resources Information Center (ERIC)* and CINAHL. Topic-specific journals, including *Journal of Occupational Therapy Education*, *American Journal of Occupational Therapy*, *Occupational Therapy International*, *Open Journal of Occupational Therapy*, *Academic Medicine*, and *Higher Education Studies* were manually searched.

### **Stage 3: Selecting the Studies**

Prior to selecting studies for review, the authors applied inclusion and exclusion criteria as follows. (1) must include graduate students from the identified graduate health professions education programs (graduate medical education, physical therapy, and occupational therapy); (2) must mention at least one of the following: belonging, sense of belonging, or belong; and (3) must have full text available. The authors excluded studies in occupational therapy that focused on belonging as part of an occupational experience (e.g., doing, being, becoming, and belonging), as this is belonging in a different context than student experiences with the feeling, or lack thereof (Wilcock & Hocking, 2015). Other exclusion criteria included addressing inclusion without belonging and exploring belonging in the context of non-healthcare graduate programs or undergraduate, elementary, or secondary education. After identifying potentially relevant studies, the authors reviewed each title and abstract independently for agreement with inclusion/exclusion criteria.

#### **Stage 4: Charting the Data**

The four co-authors reviewed the full-text articles independently, extracted data from each study, and organized this information into an individual spreadsheet under headings suggested by Arskey and O'Malley (2005). Each co-author individually performed basic qualitative content analysis to read each article (Elo & Kyngäs, 2008). During this process, they created open codes and generated category groups to answer the research question. After individual content analysis was complete, the co-authors met to discuss codes and categories to determine themes and subthemes, which were discussed until an agreement was reached.

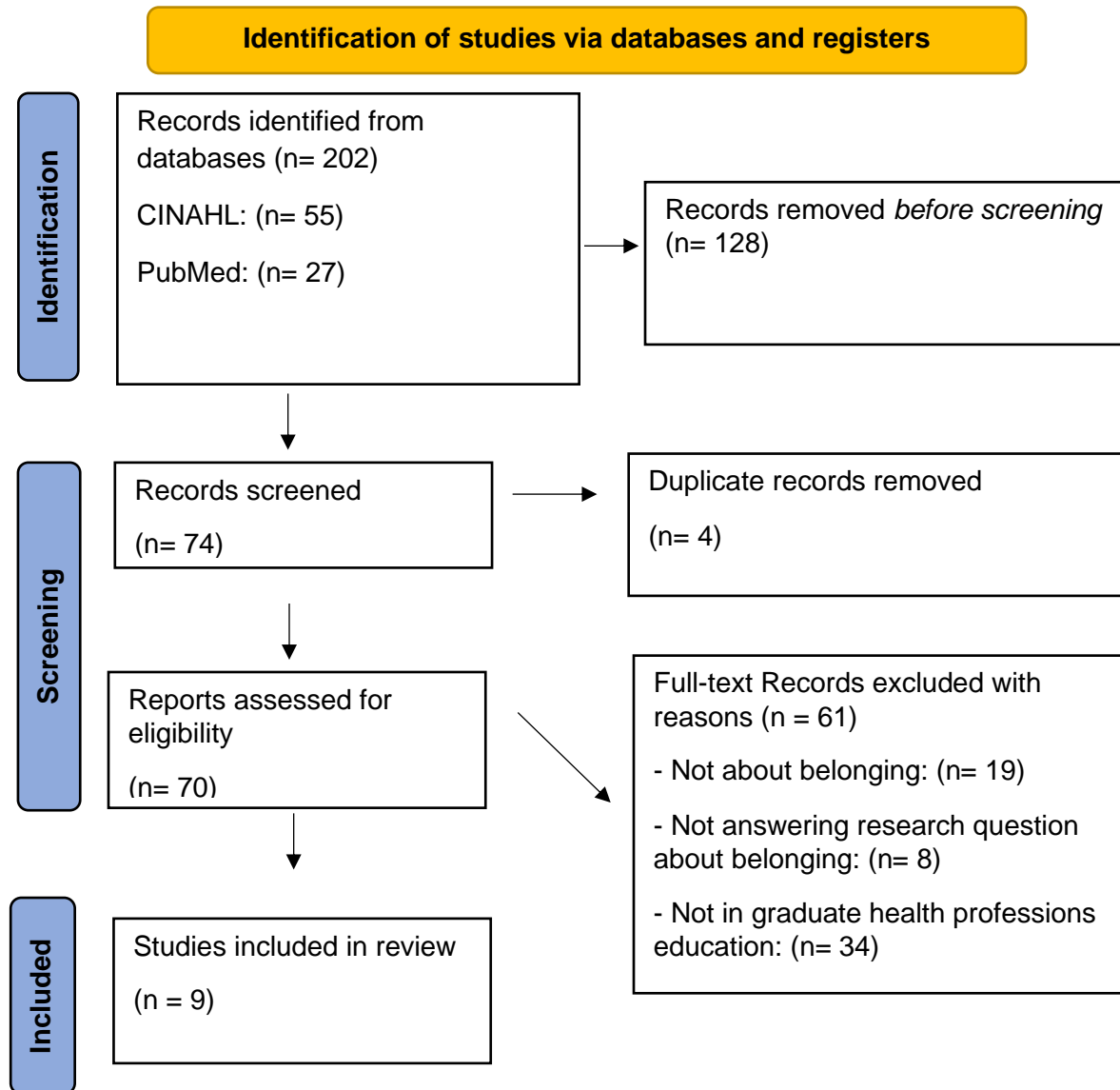
#### **Results**

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram was used to track search results and is provided below to bring transparency to the process of selecting the studies used in the review (see Figure 1). An initial search of CINAHL and PubMed databases identified 55 and 27 studies, respectively. In addition, targeted searches identified the following number of articles, *Journal of Occupational Therapy Education* (n=20), *American Journal of Occupational Therapy* (n=28), *Open Journal of Occupational Therapy* (n=21), *Academic Medicine* (n=39), *Journal of Physical Therapy Education* (n=2), *Educational Resources Information Center (ERIC)* (n=3), *Higher Education Studies* (n=7). Across all searches, 202 studies were identified; 70 remained after review of the title and abstract and removal of duplicates. After reading the full text, we removed 61 articles due to their limited exploration of belonging, inability to answer the proposed research question regarding barriers and facilitators to belonging, or a focus on a population other than graduate health professions students.

The final sample of 9 articles provided information about belonging barriers and facilitators across health professions (occupational therapy, physical therapy, & medicine) graduate education. Qualitative context analysis of these articles revealed the following themes that contributed both barriers and facilitators to belonging in graduate health professions education: (1) environment, (2) relationships, and (3) personal factors.

**Figure 1**

*PRISMA Flow Diagram for Scoping Reviews*





**Table 2***Included Studies*

<b>Authors</b>	<b>Aim of Study</b>
Berg-Poppe et al., 2017	Examination of the relationships between belonging and perceived clinical competence in occupational therapy and physical therapy students.
Bonney et al., 2014	Exploration of belonging for medical students engaging in a longitudinal integrated clerkship.
Clifton & Taff, 2021	Illustration of the Facilitating Occupational Performance on Campus: Uplifting Underrepresented Students (FOCUUS) model to support students from ethnic minorities in occupational therapy education.
Gold et al., 2019	Determine effectiveness of reflection groups for medical students in creating social connectedness and professional identity.
Haggins, 2020	Commentary on current experiences of suggestions for improvement of sense of belonging among women physicians.
Phillips, 2013	Commentary on the hidden curriculum within medical education regarding belonging and inclusion.
Strayhorn, 2020	Investigation of the role of race and racism on sense of belonging for Black medical students.
Taff & Clifton, 2022	Scoping review of the context, barriers, and facilitators to inclusion and belonging in higher education.
Wang et al., 2020	Examined the role of belonging in anxiety and depression symptoms for medical residents.

### **Characteristics of Sources of Evidence**

Of the nine articles included in the scoping review, all of the targeted health professions were represented; the final list included one physical therapy education, three occupational therapy education, and five medical education studies. Publication dates ranged from 2013 to 2022 with 55% (n=5) of articles published since 2020. Two articles were opinion pieces in peer-reviewed journals while the remaining seven articles were peer-reviewed research including qualitative interviews and surveys (n=5), scoping reviews (n=1), and the development of a practice model (n=1). See Table 2 for more information on all included studies.

### **Environment**

Researchers identified environment as one contributing factor to belonging. Within the theme of environment were the sub-themes of physical space and institutional culture and climate. When regarding the physical space of an institution, many factors contributed to or detracted from a sense of belonging including décor, access to space, and geographic location. Several studies noted that students felt the least amount of belonging when they felt unwelcomed in a space because of a limited representation of their identities in the pictures on the wall. Other cues from the physical space that evoke feelings of unbelonging include a lack of inclusive signage or pictures that only represent one type of identity and whether the space is accessible to all people (Clifton & Taff, 2021; Haggins, 2020; Phillips, 2013; Taff & Clifton, 2022). Institutional culture and climate, which includes the values of the institution, governing policies and procedures, daily practices, and historic representations of the institution, was noted as a barrier to and facilitator of belonging. Institutional culture was considered a facilitator when the values of the institution matched that of the student and a barrier when it contradicted them (Clifton & Taff, 2021; Haggins, 2020; Phillips, 2013; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020). Included under institutional climate were the larger geographic, systematic and societal factors that affect the overall climate including culture of the geographic area. The institution's position within the larger healthcare and education systems and prevailing societal opinions being mirrored in academic institutions as a mini microcosm of society were some examples provided (Clifton & Taff, 2021; Haggins, 2020; Phillips, 2013; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020).

### **Relationships**

Present in almost every article reviewed (8/9) was the importance of relationships to belonging. The authors further divided the theme of relationships into two sub-themes of faculty-to-student relationships and peer-to-peer student relationships. Faculty-to-student relationships were noted in terms of the creation and benefit of mentorship as a means to combat imposter syndrome (defined as the feeling that one has not earned their own achievements), reduce power dynamics; increase feelings of being accepted into the education community and the profession; and broaden opportunity for diverse viewpoints (Berg-Poppe et al., 2017; Bonney et al., 2014; Clifton & Taff, 2021; Gold et al., 2019; Haggins, 2020; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020).

Also discussed was the impact that microaggressions, bias, and lack of acceptance within academic communities had on sense of belonging, with students from historically minoritized identities feeling the greatest impact of these experiences (Bonney et al., 2014; Clifton & Taff, 2021; Haggins, 2020; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020). Positive faculty-to-student relationships are an important facilitator of a sense of belonging, especially when the student can find a faculty member that matches their identities, which has the potential to bolster student success in the classroom as well as in their future career (Bonney et al., 2014; Clifton & Taff, 2021; Haggins, 2020; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020). Trainings related to the concept of belonging and the experiences of historically minoritized identities effectively prepare faculty members to build positive relationships with these students, especially through mentoring interactions (Haggins, 2020; Strayhorn, 2020).

Having positive peer-to-peer relationships was widely noted in the literature as a major facilitator to the development of a sense of belonging. Fostering positive relationships with other students decreases loneliness, increases mental health, creates a teamwork mentality, reduces imposter syndrome, and improves learning outcomes (Berg-Poppe et al., 2017; Bonney et al., 2014; Clifton & Taff, 2021; Gold et al., 2019; Taff & Clifton, 2022; Wang et al., 2020). Interventions in the available literature focused on creating peer relationships through both physical and digital means. These initiatives were effective at increasing belonging (e.g., creation of student groups, peer-to-peer mentoring, and online communication platforms; Berg-Poppe et al., 2017; Bonney et al., 2014). Experiences with students outside of the academic environment also influenced whether a student felt they belonged at the institution, with social connections made off-campus spilling over into academic peer-to-peer relationships (Bonney et al., 2014; Taff & Clifton, 2022).

### **Personal Traits**

Finally, the authors classified a variety of individual characteristics of the students into the category of personal traits. Sub themes under personal traits include student perceptions of belonging and of their academic ability, student perceptions of their ability to belong in a space, the opinions of faculty and peers, and how their identities will be received in a space were addressed in 6/9 articles (Clifton & Taff, 2021; Haggins, 2020; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020).

Students bring with them the sum of their identity-related experiences, which can heavily influence their future belonging. Students from historically minoritized identities are often hyperaware of their surroundings. Thus, when they perceive that stereotypes associated with their identities and their previous experiences are not accepted in certain professions or academic institutions, this hyperawareness fuels a self-fulfilling prophecy. In a cycle which damages perceptions of belonging, students are predisposed to identify the cues that signal lack of belonging and therefore seek out exemplars to confirm that they do not belong (Strayhorn, 2020).

A student's perceived academic ability to succeed in their program and profession is linked to their perception of belonging. Students are readily aware of faculty, staff, and other students' judgements regarding their overall educational capabilities, including use of skills (i.e., time management, grit, and growth mindset) that lead to success. Additionally, experiences that cultivate shame, fear, and anxiety in students can negatively affect their ability, or perceived capability, to succeed in educational endeavors. Thus, experiences within the academic institution in the classroom or in social interactions can serve to either mitigate or confirm a student's perceived ability to succeed (Haggins, 2020; Strayhorn, 2020; Taff & Clifton, 2022; Wang et al., 2020).

### **Discussion**

The findings of this scoping review are consistent with the larger body of knowledge around belonging in higher education at the graduate and undergraduate level. The literature outside of graduate health professions education also broadly explores social relationships and experiences outside of the classroom, student-educator relationships, and students' feelings about their academic ability as important aspects of belonging (Allen et al., 2018). Students' relationships with their peers and faculty serve a primary role in the creation of a community within a graduate school, fostering mutual respect for all and facilitating personal growth (Goodenow, 1993). Peer engagement can take a variety of forms, including day-to-day interactions with peers, creating friendships, and finding peers with similar identities (Pesonen et al., 2020). Student-educator relationships encompass inclusive teaching practices, mentoring, and connecting with faculty through both formal mentorship and informal conversation (Walton & Brady, 2017). Several studies have noted the importance of supportive faculty relationships on student's sense of belonging (Pascale, 2018; Rosenthal et al., 2013; Strayhorn, 2020; Walton & Brady, 2017; Walton & Cohen, 2007). Interventions to increase belonging note the need for faculty to provide mentorship, create an entry point into a professional network, and cultivate classroom respect (Pesonen et al., 2020).

In addition to the creation of a supportive community atmosphere, the students' sense of fit and general feelings about the space weigh greatly on their overall sense of belonging (Hagerty & Patusky, 1995). Walton and Brady (2017) postulated that belonging is comprised of an individual's feelings of fit between sense of self and the context of an institution. Researchers found that students from lower socioeconomic statuses (SES) reported using less campus spaces, including iconic spaces or "public spaces that are symbolic of group identity, that are widely recognized as representing a group's identity, its attributes, values, and history" (Trawalter et al., 2021, p. 133). This restricted use of public space by students from low SES undermines a sense of belonging. Access to public spaces can provide to access to other resources, such as writing centers, tutors, and electronics which results in increased academic capabilities (Trawalter et al., 2021).

Belonging becomes particularly important for students from historically minoritized identities who have been conditioned to question their sense of fit with organizations in which they have been historically minoritized, an experience described in the literature belonging uncertainty (Holloway-Friesen, 2021; Strayhorn, 2018). Research

demonstrates that identities that have been historically minoritized (i.e., women, LGBTQ+ individuals and persons of color) experience daily assaults to their identity that result in a continued cycle of anticipating threats and utilizing strategies to resist threats results in limited emotional and physical resource to apply to academic tasks resulting in decreased academic success (Fisher et al., 2019; Ostrove et al., 2011).

Finally, students' perceptions regarding their ability and skills in academic arenas is directly linked to a sense of belonging and is often improved or exacerbated by their relationship with mentors and faculty members (Curtin et al., 2013). Evidence suggests that if an individual feels that they have a sense of purpose within a place and provide valued contributions, the social component may not always be necessary (Walton & Brady, 2017; Walton & Cohen, 2007). This feeling of being valued within or contributing meaningfully to one's institution can be considered in higher education as an individual's academic ability or capability. Confidence in one's ability to be successful in an educational context combined with academic support leads to student feelings/perceptions of capability in the higher education environment. The concept of capability is deeply entwined with a student's identity formation as a product of past educational experiences, family perceptions, and internalized societal stigma (Burke et al., 2016).

### **Implications for Occupational Therapy Education**

Currently, the literature exploring the concept of belonging in occupational therapy education and the impact that a sense of belonging has on the course of a student's occupational therapy career is lacking. The concept of belonging throughout the occupational therapy literature is defined as "the development of relationships with family, friends, organizations, or communities as people engage in occupations alongside—or for the benefit of—others" (Martin et al., 2020, p.2), and is mostly focused on the discussion of belonging on recovery from chronic illness or in relation of the occupational experience of doing, being, becoming, belonging (Wilcock, 1999). As presented in this paper, belonging to one's academic institution can increase health, student academic success, and affect one's future career trajectory. The call to diversify the profession brings in greater number of students and future occupational therapy practitioners from historically minoritized identities; thus, it is crucial that occupational therapy programs take the necessary steps to ensure that these students experience belonging.

Essential to belonging is the need to create spaces in which students view their identities as welcomed (Walton & Brady, 2017). Occupational therapy education must engage in a process of evaluating our educational spaces to be representative of and accessible to all. This includes avoiding tokenization in our advertising, displaying artwork and signage that includes all identities (e.g., gender neutral restroom signs), and ensuring that all students feel they can use the space equally (Haggins, 2020; Pesonen et al., 2020). Inaccessible teaching practices can decrease student belonging by creating feelings that students do not "fit" within the classroom environment (Pesonen et al., 2020). Thus, students and administrators should evaluate all faculty teaching regularly to ensure principals of inclusive classroom education are in use.

Occupational therapy programs should create committees or task groups to redesign program policies and procedures that aim to increase student's perceptions of belonging rather than disaffirm them (Burke et al., 2016). While most institutions are not able to change their larger geographic area, being cognizant of and vocal about the challenges students may encounter living in the area can provide a communal experience. In addition, assisting students in locating and utilizing available resources for outside of the academic institution (e.g., local LGBTQ+ events and organizations) can create belonging within the larger geographic context.

To increase student feelings of belonging, occupational therapy education programs should focus on the importance of concerted socialization and relationship building, both among peers and between students and faculty. The creation of strong student-educator relationships, in which educators check their bias and judgement, that serve to encourage and support students may address both social and mental/emotional barriers to belonging (Walton & Cohen, 2007). Beyond simply creating peer-based or faculty-to-student mentorship programs, academic institutions should provide guidance to faculty on how to mentor students with a focus on students from historically minoritized identities and mitigating the student-faculty power differential (Godbee & Novotny, 2013; Hallaway-Friesen, 2021; Strayhorn, 2020). When students experience low sense of belonging within academic contexts, they are less likely to return to academic institutions in faculty roles, resulting in few mentors and role models for underrepresented minority (URM) students within faculty roles (Ostrove et al., 2011). Further, students from URM groups attain fewer publications than the majority, resulting in difficulty gaining a faculty position (Fisher et al., 2019). Thus, to increase diverse representation of faculty at institutions, students must have opportunities to engage with research. Allowing students to be co-authors in publications and providing structured guidance for engaging in research can counteract student's preconceived notions of not expecting to belong and increase belonging so students may be willing to return to the institution to take on a faculty role in the future (Fisher et al., 2019).

To support positive peer-to-peer relationships, all students should be trained in addressing biases and microaggressions. Present research available on bias in higher education notes that nearly half of students reported an experience of bias in the classroom within a singular school year (Boysen et al., 2009). Many academic institutions have undertaken measures to address student bias through educational workshops and interventions. Engberg (2004) attempted to explore the effects of such programs comparing the effect of four different interventions (multicultural courses, diversity training, peer-facilitated training, and a service project) finding such programs to provide benefit at reducing bias. For these programs to succeed, each type requires both a commitment from both the academic institution to dedicate resources (time, funding, faculty, etc.) and the student to be engaged in the process. If academic institutions are truly dedicated to their missions of increasing diversity of historically minoritized identities, then these commitments are a necessary step towards change.

As bias reduction programs provide greater benefit to White students than to students who identify as Black, indigenous or persons of color (BIPOC), encouraging student participation in affinity groups may be beneficial in creating communities where BIPOC students can engage with those of similar identities (Walton & Cohen, 2007). Recognition that student-peer relations outside of the classroom context can affect their sense of belonging within the program may necessitate guiding students in addressing interpersonal conflicts.

More research on belonging in occupational therapy education is necessary. Future studies should focus on exploring belonging within occupational therapy graduate education to determine how it may differ from the existing research on higher education and graduate health professions education. Ideally, these investigations would follow cohorts of students over time to explore how, and to what extent, belonging changes and what factors lead to such changes. Finally, future research should strive to fill the need for an overarching theory of belonging in education. It is not clear yet if theories of belonging in occupational therapy, which are related to the experience of chronic illness, can be applied to educational context, nor if theories regarding the human need to belong are sufficient to describe the experience of belonging in occupational therapy education. Studies that illuminate occupational therapy students' experiences with belonging should be carefully designed and conducted within singular and across multiple occupational therapy professional programs.

### **Limitations**

Limitations of the present study are similar to those of other scoping reviews in that the authors are limited to what is known about the subject (Chang, 2018). In addition, despite rigorous methods (Arksey & O'Malley, 2005), it is possible that some pertinent articles were not included. The authors' biases regarding the subject of belonging may have also impacted the results. In addition, due to the nature of a scoping review the level of evidence of the articles was not evaluated thus no conclusions can be made about the rigor of the studies included. Finally, it is necessary to recognize that belonging is a subjective experience and while attempts to generalize the concept have been made solutions presented may not be enough to provide a sense of belonging for all individuals.

### **Conclusion**

The literature on belonging consistently acknowledges that the feeling is an innate human need, and the presence or absence of belonging has appreciable consequences on health and well-being. Broadly defined as an individual's sense of relationships with others and fit within the context of an organization, institution or community, the concept of belonging has been explored collaboratively with inclusion making defining belonging concepts alone difficult. Within higher education, the literature on belonging focuses across three domains: socialization, context, and academic capabilities. Each domain appears individually to affect a student's sense of belonging and can have a more drastic impact on students from historically minoritized identities due to belonging uncertainty. The evidence explored in this study brought to light the unique needs of belonging that are often under addressed in higher education. The higher education

community has identified an increased push for diversity as a major objective in the coming years, yet without implementation of interventions designed to address belonging for the historically minoritized individuals that are entering our academic institutions, higher education may continue our historic failure of minoritized populations.

---

### References

- Anant, S. S. (1966). The need to belong. *Canada's Mental Health*, 14, 21–27.
- Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review*, 30(1), 1–34. <https://doi.org/10.1007/s10648-016-9389-8>
- Allen, K. A., Kern, M. L., Rozek, C. S., McInerney, D. M., & Slavich, G. M. (2021). Belonging: A review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology*, 73(1), 87–102. <https://doi.org/10.1080/00049530.2021.1883409>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Berg-Poppe, P. J., Karges, J. R., Nissen, R., Deutsch, S., & Webster, K. (2017). Relationship between occupational and physical therapist students' belongingness and perceived competence in the clinic using the Ascent to Competence Scale. *Journal of Occupational Therapy Education*, 1(3), 3. <https://doi.org/10.26681/jote.2017.010303>
- Bonney, A., Albert, G., Hudson, J., & Knight-Billington, P. (2014). Factors affecting medical students' sense of belonging in a longitudinal integrated clerkship. *Australian Family Physician*, 43(1/2), 53–57.
- Boysen, G. A., Vogel, D. L., Cope, M. A., & Hubbard, A. (2009). Incidents of bias in college classrooms: Instructor and student perceptions. *Journal of Diversity in Higher Education*, 2(4), 219. <https://doi.org/10.1037/a0017538>
- Brown, K., Lamont, A., Do, A., & Schoessow, K. (2021). Increasing racial and ethnic diversity in occupational therapy education: The role of Accreditation Council for Occupational Therapy Education (ACOTE®) Standards. *American Journal of Occupational Therapy*, 75(3), 7503347020. <https://doi.org/10.5014/ajot.2021.047746>
- Burke, P. J., Bennett, A., Burgess, C., Gray, K., & Southgate, E. (2016). *Capability, Belonging and Equity in Higher Education*. Centre of Excellence for Equity in Higher Education. <https://nova.newcastle.edu.au/vital/access/manager/Repository/uon:32939>.
- Chang, S. (2018). Scoping reviews and systematic reviews: Is it an either/or question? *Annals of Internal Medicine*, 169(7), 502–503. <https://doi.org/10.7326/M18-2205>
- Clifton, M., & Taff, S. D. (2021). The FOCUUS Model—Facilitating occupational performance on campus: Uplifting underrepresented students. *Journal of Occupational Therapy Education*, 5(3), 14. <https://doi.org/10.26681/jote.2021.050314>



- Cohen, G. L., & Garcia, J. (2008). Identity, belonging, and achievement: A model, interventions, implications. *Current Directions in Psychological Science*, 17, 365–369. <https://doi:10.1111/j.1467-8721.2008.00607.x>
- Cook, J. E., Purdie-Vaughns, V., Garcia, J., & Cohen, G. L. (2012). Chronic threat and contingent belonging: Protective benefits of values affirmation on identity development. *Journal of Personality and Social Psychology*, 102, 479–496. <https://doi:10.1037/a0026312>
- Curtin, N., Stewart, A. J., & Ostrove, J. M. (2013). Fostering academic self-concept: Advisor support and sense of belonging among international and domestic graduate students. *American Educational Research Journal*, 50(1), 108–137. <https://doi.org/10.3102/0002831212446662>
- Elo, S., & Kyngäs, A. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Engberg, M. E. (2004). Improving intergroup relations in higher education: A critical examination of the influence of educational interventions on racial bias. *Review of Educational Research*, 74(4), 473-524. <https://doi.org/10.3102/00346543074004473>
- Fisher, A. J., Mendoza-Denton, R., Patt, C., Young, I., Eppig, A., Garrell, R. L., Rees, D. C., Nelson, T. W., & Richards, M. A. (2019). Structure and belonging: Pathways to success for underrepresented minority and women PhD students in STEM fields. *PLOS ONE*, 14(1), e0209279. <https://doi.org/10.1371/journal.pone.0209279>
- Godbee, B., & Novotny, J. C. (2013). Asserting the right to belong: Feminist co-mentoring among graduate student women. *Feminist Teacher*, 23(3), 177. <https://doi.org/10.5406/femteacher.23.3.0177>
- Gold, J. A., Bentzley, J. P., Franciscus, A. M., Forte, C., & De Golia, S. G. (2019). An intervention in social connection: Medical student reflection groups. *Academic Psychiatry*, 43(4), 375-380. <https://doi.org/10.1007/s40596-019-01058-2>
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30, 78–80. [https://doi.org/10.1002/1520-6807\(199301\)30:1<79::AID-PITS2310300113>3.0.CO;2-X](https://doi.org/10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X)
- Hagerty, B. M., & Patusky, K. (1995). Developing a measure of sense of belonging. *Nursing Research*, 44(1), 9–13. <https://doi.org/10.1097/00006199-199501000-00003>
- Haggins, A. N. (2020). To be seen, heard, and valued: Strategies to promote a sense of belonging for women and underrepresented in medicine physicians. *Academic Medicine*, 95(10), 1507–1510. <https://doi.org/10.1097/ACM.0000000000003553>
- Hale, C. J., Hannum, J. W., & Espelage, D. L. (2005). Social support and physical health: The importance of belonging. *Journal of American College Health*, 53(6), 276–284. <https://doi.org/10.3200/JACH.53.6.276-284>
- Hammell, K. W. (2019). Building globally relevant occupational therapy from the strength of our diversity. *World Federation of Occupational Therapists Bulletin*, 75(1), 13-26. <https://doi.org/10.1080/14473828.2018.1529480>

- Höhne, E., & Zander, L. (2019). Sources of male and female students' belonging uncertainty in the computer sciences. *Frontiers in Psychology, 10*.  
<https://doi.org/10.3389/fpsyg.2019.01740>
- Holloway-Friesen, H. (2021). The role of mentoring on Hispanic graduate students' sense of belonging and academic self-efficacy. *Journal of Hispanic Higher Education, 20*(1), 46–58. <https://doi.org/10.1177/1538192718823716>
- Kovač, V. B., & Vaala, B. L. (2021). Educational inclusion and belonging: A conceptual analysis and implications for practice. *International Journal of Inclusive Education, 25*(10), 1205-1219. <https://doi.org/10.1080/13603116.2019.1603330>
- Kitchen, P., Williams, A., & Chowhan, J. (2012). Sense of community belonging and health in Canada: A regional analysis. *Social Indicators Research, 107*, 103–126. <https://doi.org/10.1007/s11205-011-9830-9>
- Mahar, A. L., Cobigo, V., & Stuart, H. (2013). Conceptualizing belonging. *Disability and Rehabilitation, 35*(12), 1026–1032. <https://doi.org/10.3109/09638288.2012.717584>
- Martin, E., Hocking, C., & Sandham, M. (2020). Doing, being, becoming, and belonging: Experiences transitioning from bowel cancer patient to survivor. *Journal of Occupational Science, 1–14*. <https://doi.org/10.1080/14427591.2020.1827017>
- Neel, C. G.-O., & Fuligni, A. (2013). A longitudinal study of school belonging and academic motivation across high school. *Child Development, 84*(2), 678–692. <https://doi.org/10.1111/j.1467-8624.2012.01862.x>
- Ostrove, J. M., Stewart, A. T., & Curtin, N. L. (2011). Social class and belonging: Implications for graduate students' career aspirations. *Journal of Higher Education, 82*(6), 748–774. <https://www.jstor.org/stable/41337169>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *British Medical Journal, 372*, 71. <https://doi.org/10.1136/bmj.n71>
- Pascale, A. B. (2018). “Co-existing lives”: Understanding and facilitating graduate student sense of belonging. *Journal of Student Affairs Research and Practice, 55*(4), 399–411. <https://doi.org/10.1080/19496591.2018.1474758>
- Peters, M. D., Marnie, C., Colquhoun, H., Garritty, C. M., Hempel, S., Horsley, T., Langlois, E. V., Lillie, E., O'Brien, K. K., Tunçalp, Ö., Wilson, M. G., Zarin, W., & Tricco, A. C. (2021). Scoping reviews: Reinforcing and advancing the methodology and application. *Systematic Reviews, 10*(1), 1-6. <https://doi.org/10.1186/s13643-021-01821-3>
- Pesonen, H. V., Nieminen, J. H., Vincent, J., Waltz, M., Lahdelma, M., Syurina, E. V., & Fabri, M. (2020). A socio-political approach on autistic students' sense of belonging in higher education. *Teaching in Higher Education, 1–19*. <https://doi.org/10.1080/13562517.2020.1852205>
- Phillips, S. P. (2013). Blinded by belonging: Revealing the hidden curriculum. *Medical Education, 2*(47), 124-125. <https://doi.org/10.1111/medu.12103>

- Power, A. (2013). Making space for belonging: Critical reflections on the implementation of personalized adult social care under the veil of meaningful inclusion. *Social Science & Medicine*, 88, 68–75. <https://doi.org/10.1016/j.socscimed.2013.04.008>
- Rosenthal, L., Levy, S. R., London, B., Lobel, M., & Bazile, C. (2013). In pursuit of the MD: The impact of role models, identity compatibility, and belonging among undergraduate women. *Sex Roles*, 68(7–8), 464–473. <https://doi.org/10.1007/s11199-012-0257-9>
- Strayhorn, T. (2018). *College students' sense of belonging: A key to educational success for all students*. Parable books. <https://doi.org/10.4324/9781315297293>
- Strayhorn, T. L. (2020). Exploring the role of race in Black males' sense of belonging in medical school: A qualitative pilot study. *Medical Science Educator*, 30(4), 1383–1387. <https://doi.org/10.1007/s40670-020-01103-y>
- Taff, S. D., & Blash, D. (2017). Diversity and inclusion in occupational therapy: Where we are, where we must go. *Occupational Therapy in Health Care* 31(1). 1-12. <https://doi.org/10.1080/07380577.2016.1270479>
- Taff, S. D., & Clifton, M. (2022). Inclusion and belonging in higher education: A scoping study of contexts, barriers, and facilitators. *Higher Education Studies*, 12(3). <https://doi.org/10.5539/hes.v12n3p122>
- Trawalter, S., Hoffman, K., & Palmer, L. (2021). Out of place: Socioeconomic status, use of public space, and belonging in higher education. *Journal of Personality and Social Psychology*, 120(1), 131–144. <https://doi.org/10.1037/pspi0000248>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., Lewin, S., & Straus, S. E (2018). PRISMA extension for scoping reviews (PRISMA ScR): Checklist and explanation. *Annals Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Walton, G. M., & Brady, S. T. (2017). The many questions of belonging. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (pp. 272–293). The Guilford Press.
- Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, 92(1), 82–96. <https://doi.org/10.1037/0022-3514.92.1.82>
- Wang, K., Burke, S. E., Przedworski, J. M., Wittlin, N. M., Onyeador, I. N., Dovidio, J. F., Dyrbye, L., Herrin, J., & Van Ryn, M. (2020). A comparison of depression and anxiety symptoms between sexual minority and heterosexual medical residents: A report from the Medical Trainee CHANGE Study. *LGBT Health*, 7(6), 332-339. <https://doi.org/10.1089/lgbt.2020.0027>
- Wilcock, A. A., & Hocking, C. (2015). *An occupational perspective of health* (3rd ed.). Slack.
- Wilcock, A. A. (1999). Reflections on doing, being and becoming. *Australian Occupational Therapy Journal*, 46(1), 1-11. <https://doi.org/10.1046/j.1440-1630.1999.00174.x>