Research

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Abstract

Aims: This study explored occupational therapy students' implicit (unconscious) ageism. Because of the relationship between impairment and dependence, and ageism and ableism, we also explored if there was a relationship between occupational therapy students' implicit ageism and their implicit ableism.

Methods: We conducted and analyzed implicit age and disability attitude data (i.e., Age Implicit Association Test; Disability Attitude Implicit Association Test) from 54 occupational therapy students.

Results: Most occupational therapy students in our study (70%) were ageist, with the majority strongly or moderately preferring younger adults over older adults. Our findings also suggest ableism plays a role in ageism – ableism accounted for almost 30% of variance in occupational therapy students' ageism in our study.

Conclusions: Through attending to functional interdependence and home modifications occupational therapists can support older adults in the natural processes of aging, instead of reinforcing ageism and its influences on intervention and plan of care development.

Keywords: ageism; older adults; disability; occupational therapists; implicit attitudes; prejudice

Ageism and Ableism: Unrecognized Biases in Occupational Therapy Students

By the year 2030 the number of Americans older than 65 will more than double to 70 million people.[1] Many of the lifestyle choices of the 'baby boomer' generation compared to previous generations will lead to more chronic health conditions and, as a result, will lead to an increased need for healthcare, including occupational therapy (OT).[2] Occupational therapists have expertise in the aging process, and often work with older clients to identify and optimize participation in meaningful life activities.[3] Occupational therapists may work with older clients to explore alternative occupational paths, or new methods for performing occupations in response to normal age-related changes and/or acquired changes in functioning.[4] The foundation of OT is that occupation is vital to health and that the occupations we do every day shape a persons' identity. However, what if the occupations an occupational therapist recommends to a client are more strongly informed by a clinicians' attitudes of aging than the client's wants and desires? How might unconscious negative attitudes of age inform the clinical decision-making, including when it comes to intervention design and discharge planning of an older client? There is an acknowledged shift in how older adults live, with a growing community of older adults leading more active and productive lives challenging established views of aging that drive these questions.[5] This community views occupations that are novel that involve social interactions, including giving to others, as critical to successful aging.[6] Students may not be aware of this shift or may not share similar perceptions of the occupations many older adult find important and as a result rely more heavily on learned stereotypical occupations in developing interventions with older clients.[6, 7]

Ageism

Ageism – prejudiced attitudes, biases, and discrimination (including structural) based on age – is pervasive.[8, 9] Ageism includes a mix of positive and negative stereotypes about ageing.[10] For example, positive stereotypes include those that older adults are wise, benevolent, and warm.[10] However, people can also simultaneously believe older adults are frail and weak, non-productive, a burden, unable to contribute, incompetent, and dispensable.[11] In fact, it is not uncommon for older adults to be considered dependent and less capable, lacking in capacity and autonomy.[10] In this way, ageism parallels ableism (discrimination of people with disabilities); both emphasize impairment, capacity, dependence, and in/ability, portraying the recipients as a burden.[12] Overall [12] explains,

> in both [ageism and ableism], social practices and institutions establish and reinforce negative values that make rather ordinary characteristics of some human beings into liabilities and stigmata. The systems of ableism and ageism function to make, respectively, certain bodily features (limbs, organs, or systems), and certain numbers of years lived, into social liabilities, rationalizations for subordination, and sources of shame…ableism and ageism are intertwined in malignantly effective ways that result in disrespect, reduction of autonomy, and the disregard of the rights of those targeted. (p. 131)[12]

The implications of ageism

Ageism impacts interactions between people, cultural values, and regulations and policies.[11, 13] Ageism is detrimental to older adults' health and well-being.[8, 9] Not only can experiencing ageism result in lower mental and physical health outcomes for older adults, the internalization of ageism by older adults is also harmful.[9, 13-15] Internalized ageism is associated with negative physical and mental health outcomes, such as lower life expectancy, reduced self-

esteem and self-worth, reduced memory recall, high blood pressure, and reduced self-trust.[8] For example, longitudinal studies have found that older adults that accepted negative stereotypes about being older had significantly worse health outcomes compared to those older adults who had positive views of aging.[8] Internalized ageism can also make older adults believe being ill or having pain is a normal part of being old, and make them feel they have no control over their health.[8]

While internalized ageism is problematic, the ageism older adults are on the receiving end of is also problematic. For example, ageism negatively impacts the quantity and quality of the healthcare older adults receive.[13, 15] Research indicates ageism is prevalent amongst healthcare providers.[10, 13, 15, 16] In fact, working with ill or infirm people may actually reinforce healthcare professionals ageism.[16]

Commonly held stereotypes of healthcare professionals include that older adults are frail, depressing, declined, nonproductive, and needy.[10, 17] They are also viewed as both incompetent and stubborn, and as a result, are associated with frustration and distrust, and are viewed as less rewarding to work with.[10, 17] In fact, research has found, as a result of these stereotypes, healthcare professionals are reluctant to work with older adults.[18]

Healthcare professionals' ageism results in lower quality healthcare, and as such, lower health outcomes for older adults.[13, 15] For example, the more ageism women face, the worse they rate their own health and well-being.[10] Ageism also influences the type and amount of care older adults receive.[15, 17] As a result of ageism, medical professionals are more likely to dismiss older adults complaints or symptoms, such as pain, as simply related to old age.[10, 17] As a result of ageism, fewer tests are run on older adults, and different treatment options are presented.[13] Often

this leads to undertreatment.[17] Healthcare professionals may also assume older adults have a poorer prognosis – have lower expectations – and treat them accordingly.[16]

Ageist healthcare professionals also often deny older adults the right to risk, not only giving them less support, but also involving them less in medical decisions, and not allowing them to be full decision-makers.[15, 18] In fact, ageist healthcare professionals are less respectful, less patient, less engaged, and offer less information to older adults.[15, 17] They commonly infantilize older adults by talking down to them, making assumptions about them, or talking about them rather than to them.[10, 13, 16]

Differential treatment from healthcare professionals not only results in worse functional health amongst older adults, it can also make them less likely to seek treatment for nonmedical needs as they have lower expectations for being helped.[15, 17] They are also more likely to think pain is normal, and less likely to participate in preventative behaviors and physical activity.[15, 17]

Ageism and Occupational Therapy

Occupational therapists are not immune from ageism; in fact, research suggests ageism is also prevalent amongst occupational therapists.[16] While some literature suggests occupational therapists (or OT students) may be less ageist than other healthcare professionals, ageism amongst occupational therapists is problematic nonetheless.[16, 18, 19] For example, occupational therapists' stereotypes about older adults include that they are less likely to contribute and are a burden, that they are a challenge to work with and are stubborn, that they are frail, inactive and dependent, and that they are unimportant.[16, 19] These assumptions have many implications for OT practice. For example, one study found that even when occupational therapists thought they had a positive perception of older adults, they still participated in infantilizing communication with older adult clients.[16] Ageist occupational therapists may not recognize an older adult's needs,

and/or may make assumptions that clients are frail, that they will have a poor prognosis, or that they will have a diminished response, and this may impact their program planning, evaluation, and/or decision making.[18] In addition, ageism can make it difficult to recruit and train occupational therapists to work with older adults – geriatrics is deemed lower on the OT professional hierarchy.[19]

Ageism in OT is problematic not only because there is likely to be a growing need for OT by older adults because it is a rising population, but also because ageism conflicts with OT's goals of empowerment.[18] Brown, Kother and Wielandt [18] notes, "ageism is one such pervasive social barrier that occupational therapists will need to address" (p. 282).[18] To remedy ageism in OT, we need to better understand what it is and how it operates. In fact, "all of the researchers examining ageism within the context of occupational therapy have called for more research" (p. 283).[18] While some literature on occupational therapists' ageism exists, most research has focused on explicit (conscious) biases, which are susceptible to social desirability, and do not capture unconscious attitudes people are not aware they have.[20] For this reason, it is useful to examine implicit (unconscious) attitudes. The aim of our study was to explore OT students' implicit ageism. Because of the relationship between impairment and dependence, and ageism and ableism, we were also interested in exploring if there was a relationship between OT students' implicit ageism and their implicit ableism. We had the following research questions: (1.) What are OT students' implicit attitudes about older adults?; And, (2.) Is there a relationship between implicit disability attitudes and implicit age attitudes? To explore these questions, we conducted and analyzed implicit age and disability attitude data (i.e., age implicit association test (IAT); Disability Attitude Implicit Association Test (DA-IAT)) from 54 OT students.

Methods

Participants

After approval from the institutional review board, participants were recruited through three large Midwestern United States universities. A total of 54 OT graduate students, who recently completed their second year of professional OT education, participated in this study. The majority of participants were women (87.04%) and White (75.93%; Table 1). The majority of participants (61.11%) had a family income of $80,000 or higher. Participants ages ranged from 23 to 47, with most participants (51.85%) being between 24 and 25 years old. The majority of participants (77.78%) identified as liberal, with fewer identifying as conservative (22.22%). Two of the OT students (3.70%) identified as people with disabilities.

Measure

Data was collected via an online study, which included Implicit Association Tests (IATs), and a survey about demographics. IATs are one of the most prominent methods for assessing implicit bias. IATs present participants with two target-concept discriminations (e.g., young and old) and two attribute dimensions (e.g., good and bad) and then ask participants to categorize stimuli (i.e., pictures of old and young adult faces, and words related to good and bad) as belonging to the categories in different stereotype congruent and incongruent ways. IATs calculate implicit attitudes by measuring reaction time between groups and traits – the quicker the reaction time, the stronger the association between groups and traits. The Age IAT was used to explore implicit ageism, and the DA-IAT to explore implicit ableism.

Procedure

OT students that were interested in participating in this study accessed an online website where they completed the informed consent. Participants were then presented with the IAT instructions. They were instructed to push the ‘E’ key if presented stimuli belonged in the

categories on the left side of the computer screen and the 'I' key for the right. They were told to so as quickly as possible and with the least amount of errors. If participants placed stimuli on the incorrect side of the screen a red 'X' appeared until they corrected their choice.

The Age IAT presents participants with seven blocks (rounds) of categorization tasks. During the first practice block, which lasts 20 trials, the participants *only* sort the target-concept discriminations (i.e., young and old) on opposite sides of the screen. The second practice block is similar – 'good' is presented on one side of the screen and 'bad' on the other for 20 trials. For blocks three (20 trials) and four (40 trials) the target-concept discriminations and the attribute dimensions are both presented on the screen at the same time. For example, 'old' and 'bad' may be on the left with 'young' and 'good' on the right. The computer system randomizes if they are presented with stereotype consistent or inconsistent items during these blocks. Block five (40 trials) is then a practice block where only good and bad are presented on opposite sides of the screen. This allows participants to become familiar with the switched location of these two attribute dimensions. Block six (20 trials) and seven (40 trials) are then similar to blocks three and four except if they received the stereotype inconsistent layout in those blocks they will receive the stereotype consistent ones in blocks six and seven, and vice versa.

In addition to the Age IAT, participants also completed the DA-IAT. The DA-IAT follows the same procedure of the Age IAT except 'young' and 'old' is replaced with 'abled persons' and 'disabled persons' and applicable stimuli of people with disabilities and nondisabled people. Finally, participants completed questions about their demographics.

Analysis

We used SPSS 23 for all analysis. We calculated implicit attitudes on the Age IAT using Greenwald et al.'s updated IAT scoring protocol.[21] Using the scoring protocol, *D* scores are

produced for each student based on their response latencies in blocks that are consistent and inconsistent with stereotypes. IAT scores are reported for the strength of preference for younger adults or older adults. Scores range from -2.0 to 2.0; scores of -0.14 to 0.14 reveal no preference for younger or older adults, scores of 0.15 to 0.34 a slight preference for younger adults, 0.35 to 0.64 a moderate preference, and 0.65 or greater a strong preference.[21] Negative values of the same ranges reveal preferences for older adults.[21] We then utilized a one-tailed *t*-test to determine if the students' age attitudes were significantly different from zero.

We were also interested in exploring how age and disability attitudes relate. We calculated participants' implicit attitudes on the DA-IAT. Then, we ran a linear regression model in order to examine if there was a relationship between OT students' implicit attitudes towards disability (independent variable) and their implicit attitudes towards age (dependent variable).

Results

Implicit Age Attitudes

Participants' Age IAT scores ranged from -0.71 (strong preference for older adults) to 1.13 (strong preference for younger adults; Figure 1). The mean score on the Age IAT was 0.29 (SD = 0.44). A one-tailed *t*-test determined this score was significantly different from zero (t (54) = 4.94, p < 0.001, Cohen's d = 0.67 (large)), indicating an implicit preference for younger adults. Findings revealed 70.37% (n = 38) of participants preferred younger adults, 20.37% (n = 11) preferred older adults, and 9.26% (n = 5) had no preference. The majority of participants moderately or strongly preferred younger adults (Figure 2).

Relationship Between Students' Disability and Age Attitudes

We ran a linear regression model to explore the relationship between students' implicit disability attitudes and implicit age attitudes. The model was significant, F (1, 53) = 19.09, p <

0.001, $R^2 = 0.27$. The implicit disability attitudes term was significant, $t = 4.47$, $p < 0.001$. According to the model, the higher the student's implicit disability bias, the higher their implicit age bias is expected to be (Figure 3). For example, a student with strong disability prejudice (0.65), is expected to have moderate age prejudice (0.35). Meanwhile, a student with no disability prejudice (0) is expected to also have no age prejudice (0.03).

Discussion

Older adults are a growing population; as a result, there is likely to be a growing need for OT by older adults. The aim of this study was to not only explore OT students' implicit age attitudes, but also to examine the relationship between their age attitudes and disability attitudes. Our findings revealed most OT students in our study (70%) were ageist, with the majority strongly or moderately preferring younger adults over older adults. This finding mirrors past research which suggests that ageism is widespread across the United States healthcare system.[10, 13, 15, 16] Although OT students' ageism is likely similar to the general population, it is no less problematic, particularly because current educational programing may not be sufficiently addressing ageism, and because of the significant power students will have as therapists, especially as related to clinical decision-making.

Implications for Occupational Therapy Education

The prevalence of ageism is particularly problematic given that successful evidenced-based interventions for ageism, including the ageism of healthcare professionals, are lacking. In fact, a review of interventions for healthcare professionals' ageism found "the overall evidence was poor to moderate," and that there needs to be "more rigorous study design" (p. 291).[18] Implicit attitudes can be particularly difficult to reduce as not only are people often not aware of their attitudes, but also "once an implicit stereotype is formed, the stereotype is usually not

diminished when a person encounters contradictory evidence. If anything, the contradiction… may be classified as an exception" (p. 65).[11] In fact, research on individual level interventions suggest, even those which are moderately effective in the controlled study environment, may not lead to lasting change.[9] As such, larger societal changes, and more comprehensive broader programs, are necessary to truly reduce implicit ageism,[9] – "history suggests that reduction in discrimination is achieved with social recognition and political action" (p. 69).[11] For example, research suggests increasing intergroup contact between people of all ages, and increasing multifaceted and complex portraits of aging and older adults.[9, 10] Other promising avenues include teaching people of all ages how to interrogate and question myths about aging, and emphasizing the positive aspects of aging can significantly improve the physical and mental health of older adults.[8]

As far as changes we can make specifically in relation to OT, a number of authors have called for OT students to not only be taught that ageism is unacceptable and unethical, but also for them to receive more gerontological education.[10, 17, 19] Discussion of age, impairment, and disability in curriculum are commonly negatively framed and tend to focus on inability, dependence, and frailty, and how to maintain independence or rehabilitate people to independence, which likely reinforces ageism and ableism, rather than being framed as related to part of the human condition, interdependence, and environments.[22] In the United States, despite a growing recognition of the role of environments, OT graduate programs largely focus on impairment.[23] Increasingly, OT is addressing health and wellness promotion,[24] and Lifestyle Redesign;[25] however, these interventions' emphasis on combating deficits or loss of function which might require increased levels of care – use independence as a metric of success[19] – that may serve to produce and/or reinforce ageism. However, over the last few decades, the

profession of OT has begun to move away from normalizing texts in curricula, and has begun to incorporate interventions addressing social and occupational justice, bringing attention to interdependence, occupational participation, and engagement in meaningful occupation. We believe doing so may also help reduce ageism.

Little is known about how OT programs cover the concept of ageism, including its potential impacts on clinical decision making. While the Accreditation Council for Occupational Therapy Education (ACOTE) B-Standards from the United States certifying board specify a clinician must be taught to take into consideration cultural and disability status factors that might bias the clinician's interpretation, ageism is not explicitly mentioned.[26] Moreover, there is a dearth of literature within the profession and among professional literature on attending to ageism, or ways to counter its effect. OT curriculum are increasingly becoming more thoughtful on issues of conscious and unconscious attitudes by addressing biases.[27] Biases recently examined within occupational therapy literature include racial and fat bias.[28] Ageist and ableist concepts related to functional norms, and interventions on how to achieve these norms are woven throughout professional educational programs. Attending to how these reinforce negative stereotyping and prejudice associated with both age and disability is critical to inform a more competent client-centered therapist. Understanding how these identities might have an impact on attitudes, for example age and gender,[10] should be part of the larger conversation on biases in OT curriculum. Entry-level curriculum in particular may be the perfect time to have students examine ageism in themselves, the profession, and society at large.[10, 19]

Implications for Occupational Therapy Practice

When examining OT students' attitudes of older adults, this study found these future practitioners hold implicit biases of older adults. Although our study only examined one point in

time, and these students will continue to mature and have exposure to many older adults in a multitude of clinical contexts, research on implicit bias finds implicit ageism and ableism are resistant to change – these biases remain relatively stable across time.[29] Thus, the biased attitudes of these students may remain with them as the participate in their fieldwork experiences and beyond into clinical practice. While these students' attitudes may not generalize to practicing clinicians, the possibility of the existence of ageism in practice, including the ageist values that are reinforced in OT education and clinical practice, warrants discussion.

Older adults are commonly considered incapable and dependent,[11] which parallels ableist conceptualizations of people with disabilities, where there is an emphasis on impairment, dependence, and inability, rather than a focus on the whole person and environmental barriers. Many people fear aging because they fear acquiring a disability because of individualization of disability – the process of locating the cause of disability solely within the person.[30] Our findings suggest ableism does indeed play a role in ageism – ableism accounted for almost 30% of variance in OT students' ageism in our study.

During OT interventions delivered in the United States, there is heavy emphasis on achieving independence or rehabilitating older clients to become independent by focusing on deficits or loss of function using independence as a metric of success.[19] Occupational therapists' clinical decision-making to remediate loss of function or increase independence is likely influenced by ageism and societies preoccupation of the definition of successful aging.[31] This definition includes "avoidance of disease and disability and maintaining high levels of mental and physical function" (p. 40).[31] In fact, some scholars argue the discourse on successful aging does not eliminate ageism but might function to increase it.[30] For example, a study of geriatric occupational therapists found even these specialists had trouble accepting that "some clients

chose to have decreased mobility and have someone else complete important tasks, in contrast to obtaining independence to perform an activity" (p. 343).[19] As some older adults may value interdependence,[16] therapist goals for an older client may be misaligned and less meaningful to their client if focusing solely on achieving independent functioning. Because of this, older adults might not achieve clinician assigned goals, thus reinforcing therapists' ageist attitudes.[16] In addition, by valuing independence and biomechanical improvements, therapists may not be as open to client goals that incorporate interdependence, which could lead to a failure to develop client-clinician partnerships.[19]

Discharge planning is an example of how ageism may present. Typically, discharge decision making requires therapists determine if a client is independent and safe to return home given their current home environment and levels of supports or services. If a therapist assesses they are not, they then determine if modifications can be made to the context and if supports can be arranged. Primarily these determinations are based on the clinician's subjective assessments.[32] Clinical decision-making in discharge planning is more often informed by assessments of a clients' safety risks, current availability of home supports, and performance in observed occupations than client choices for discharge, which at times counters principles of client-centeredness.[32] As discharge recommendations rely greatly on subjectivity, they may be heavily informed by ageism, even unconsciously. Not only does this contradict our principles of client-centeredness, it also counters concepts of occupational justice which specify that interventions support development of occupational potential and enable participation as valued members of society.[33]

While client independence with everyday tasks is often our primary focus, this concept "has been challenged as it does not adequately reflect the value systems of all those we serve

[and is] an unattainable goal and a mirage, particularly for the diversity of seniors served by occupational therapists" (p. 199).[14] Limited individual capacity to achieve independent functioning that requires caregivers and outside assistance for everyday tasks does not remove a client's capacity for autonomy. While occupational therapists are educated and trained to more closely attend to issues of safety and risk,[34] which often draws our attention to client deficits, occupational therapists have an ethical commitment to autonomy and self-determination.[35] The distinct value of occupational therapists is that they can focus on environmental modifications, rather than individualized biomedical approaches that can be addressed by other healthcare professionals. Through attending to functional interdependence and home modifications occupational therapists can support older adults in the natural processes of aging, instead of reinforcing ageism.

Finally, it is vital to look beyond how ageism might be addressed at the individual level and consider how occupational therapy can address the powerful influence of ageism on the social and healthcare policies that contribute to the social exclusion and isolation of older adults. Occupational therapists employing social occupational therapy, politically and ethically framed OT professional practices focusing on social issues and injustices, have successfully consulted in advising policy change as part of a larger attempt at reducing disparities of occupational opportunities.[36, 37] By looking at macro and mezzo level dynamics occupational therapists can consult with legislators or advocate to evaluate how ageism informs policies that shape access to care, as well as responses to advocacy efforts at the individual and group level. Policy change can open doors for new anti-ageism efforts to reduce ageism in occupational therapists and the society at large; policy can also help counteract ageism by implementing changes to ensure older adults can engage in the occupations that are important to them In order for occupational

therapists to help advocate for these changes, educators must engage students in critical theoretical frameworks in conjunction with occupation-based models of practice on the role of occupational therapy in facilitating transformational change at the social level, in order to provide a foundation for the power and potential of social occupational therapy.

Limitations

A number of limitations should be considered when interpreting our findings. All participants volunteered to participate, so there is a change of self-selection bias. The majority of participants were White and women; however, this is representative of the profession.[38] It would be fruitful for future research to be conducted with a wider and more representative sample.

Conclusion

OT promotes meaningful participation in daily life and routines for all clients regardless of age.[39] However, unconscious attitudes that an older adult may be incapable, or a risk to themselves, and in need of supervision may be undermining this commitment when designing plans of care and discharge recommendations for our older clients. In fact, in our study the overwhelming majority of OT students were ageist; while this study explored the attitudes of OT students, because ageism is very prevalent,[8, 9] the findings and their implications may inform other allied health professionals as well. Aging decline and disability are ubiquitous and inevitable, but neither should be the cause for a therapist to think differently of a client's potential to participate in meaningful life activities. Each person in society is interdependent; yet, when ageism and ableism inform a therapist's thinking, clients are often denied their right to have control over choices and how they live their lives. Program instructors should recognize how these biases are formed or reinforced by curriculum in allied health and examine stereotyping that might exist within their course work.

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Table 1
Demographics (n = 54)

	n	*%*
Age		
22-23	5	9.26
24-25	28	51.85
26-27	7	12.96
28-29	4	7.41
30-31	3	5.56
32-33	3	5.56
37+	4	7.41
Disabled		
No	50	92.59
Yes	2	3.70
prefer not to say	2	3.70
Family socioeconomic status		
Less than $20,000	5	9.26
$20,000 to $39,999	6	11.11
$40,000 to $59,999	7	12.96
$60,000 to $79,999	3	5.56
$80,000 to $99,999	7	12.96
$100,000 to $149,999	10	18.52
$150,000 or more	8	14.81
prefer not to say	8	14.81
Gender		
Woman	47	87.04
Man	7	12.96
Political orientation		
Liberal	42	77.78
Conservative	12	22.22
Race		
White	41	75.93
Asian or Pacific Islander	5	9.26
Latinx	3	5.56
Black	2	3.70
Other	3	5.56

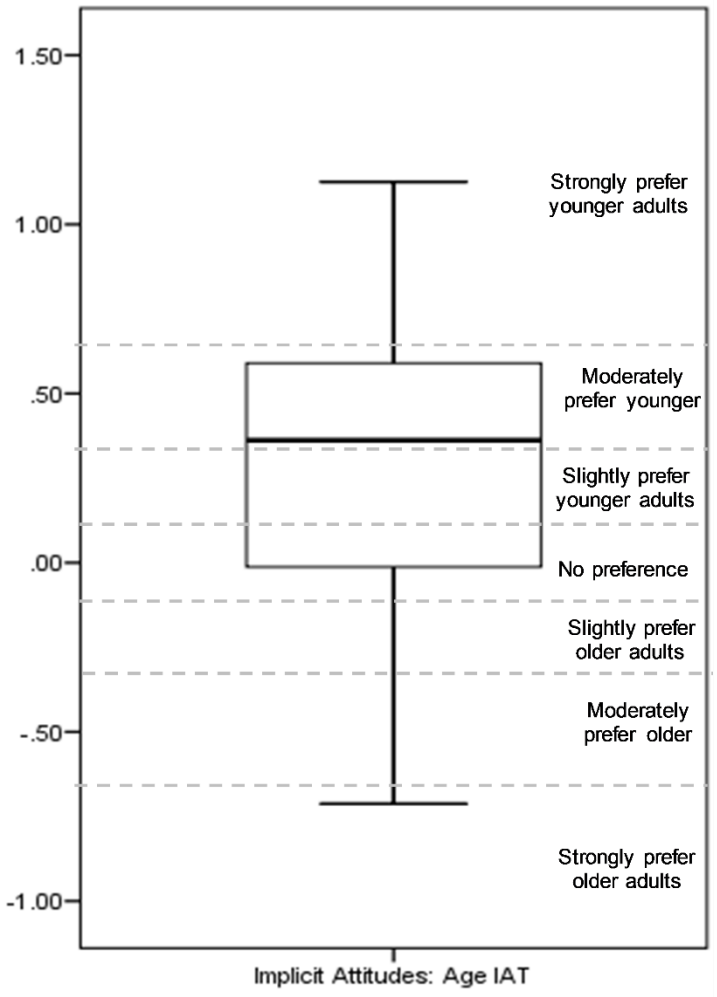

Figure 1. Boxplot of age implicit association test scores.

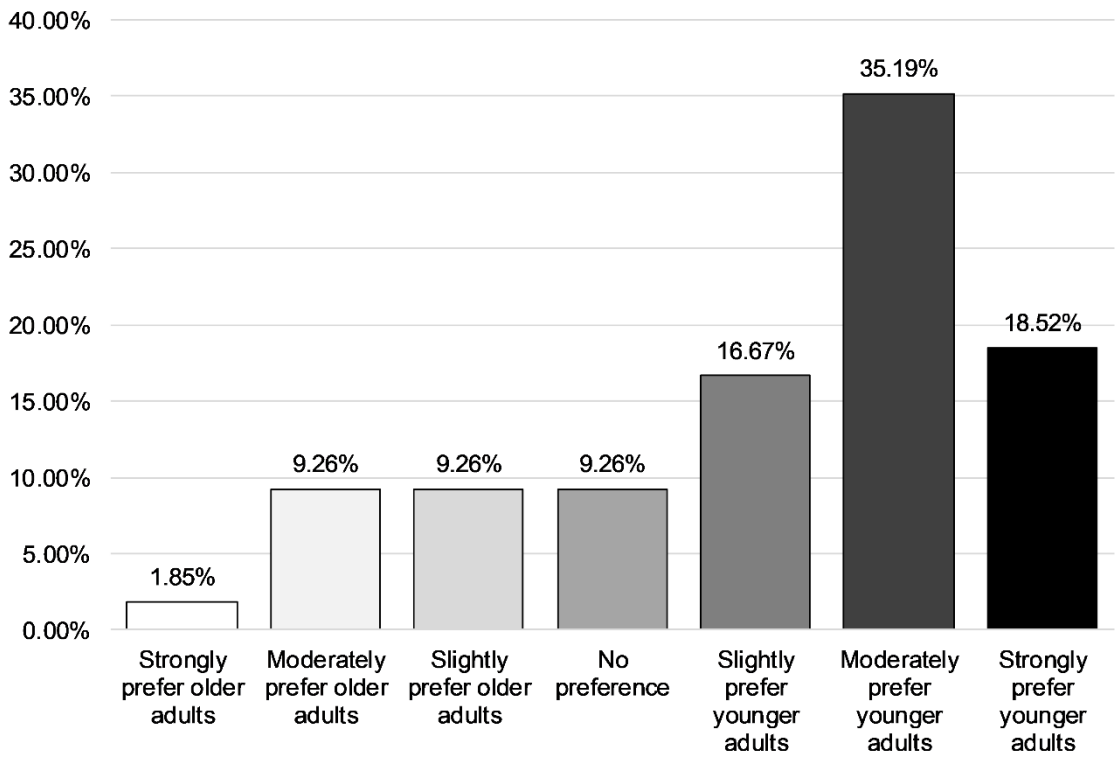

Figure 2. Occupational therapy students' implicit attitudes towards older adults.

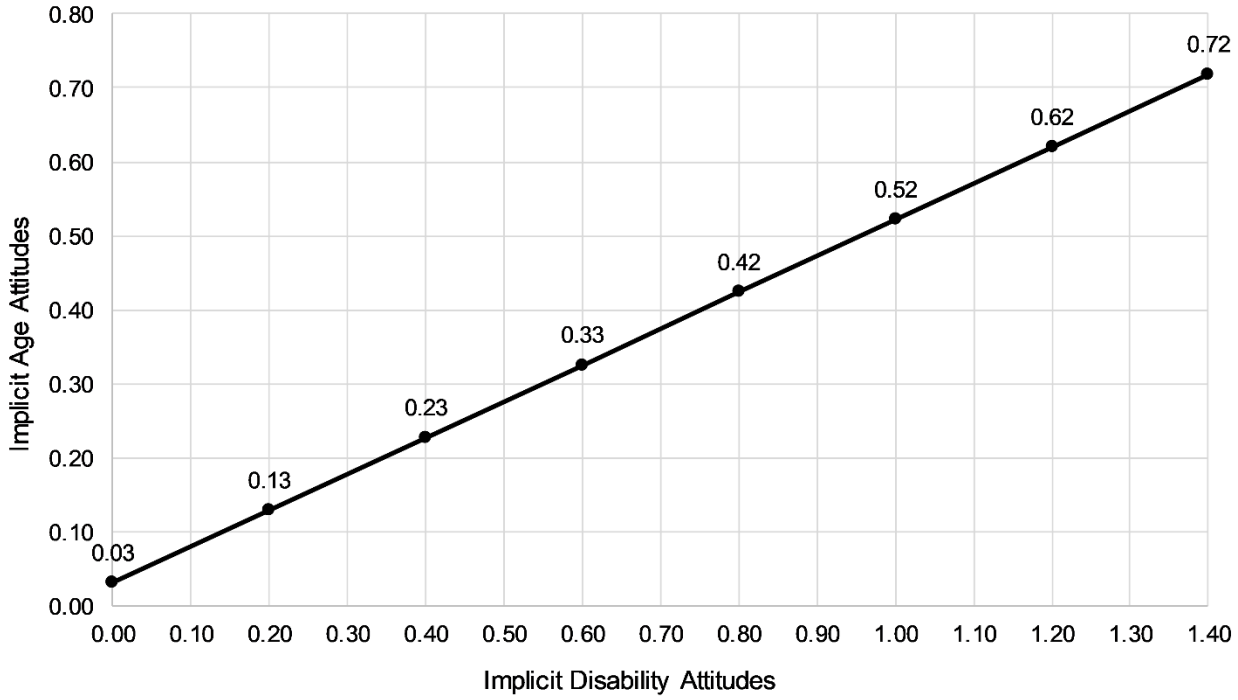

Figure 3. Relationship between implicit disability attitudes and implicit age attitudes.