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Choosing Wisely® in Academia, Strategies for Clinical and Classroom Curricula

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Abstract

Incorporating evidence-based practice (EBP) into occupational therapy (OT) program curricula is best practice and mandated by the Accreditation Council for Occupational Therapy Education (ACOTE). The Choosing Wisely® campaign, founded by the American Board of Internal Medicine (ABIM) and adopted by the American Occupational Therapy Association (AOTA), provides 10 recommendations for evidence-based OT. This project focused on the Choosing Wisely® campaign's incorporation into OT program curricula. A 40-min educational program focusing on the history of Choosing Wisely®, its adoption by the AOTA as a specialty society partner, and strategies to bridge the campaign's evidence-based recommendations from classroom to clinical experience were provided to members of the Metropolitan Occupational Therapy Educational Council (MOTEC). Fifteen pre and post program surveys were collected. Pre and post responses were analyzed regarding the familiarity of the campaign, perceptions of the campaign, and the willingness of occupational therapists in academia to incorporate the recommendations into program curricula when referencing EBP. The data shows an increase in the participants' understanding of why the AOTA adopted the campaign, positive perceptions regarding the campaign, and a willingness to incorporate Choosing Wisely® as a reference to EBP in program curricula.

Comments

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Credentials Display

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Evidence-based practice (EBP) is the conscientious, explicit, and judicious use of current, best evidence for making decisions for client care (Thomas et al., 2017). Hallé et al. (2021) said, “Improving collaboration between faculty and preceptors constitutes an essential first step towards more effective EBP training programs in rehabilitation” (p. 1311). Occupational therapy (OT) students and occupational therapists in academia can serve as the bridge between the most current and relevant EBP and their fieldwork educators (FWEs).

The American Occupational Therapy Association (AOTA) committed to adopting the Choosing Wisely® initiative of the American Board of Internal Medicine (ABIM) Foundation as a special society partner in 2016. This implementation occurred after a series of surveys and an extensive literature review identified interventions and assessments that should no longer be used in OT practice (AOTA, n.d.-a). The Choosing Wisely® campaign provides 10 recommendations for evidence-based, nonduplicative, and safe practices. The name Choosing Wisely® originated from a group of physicians who suggested “wise choices” accurately reflected the ABIM Foundation’s desire to empower patients (Wolfson et al., 2014). The board of directors and members of AOTA committed to join the campaign in a three-phase process (Gillen et al., 2019). The first phase was developing a plan to build member awareness. The second phase gathered member input. This research will assist AOTA in the third phase of the Choosing Wisely® adoption process, which is dissemination and education focusing on OT program curricula.

Any new initiative has barriers. A key barrier to referencing and implementing the Choosing Wisely® campaign is occupational therapists’ awareness. Despite publicity and outreach efforts, a survey conducted by the ABIM Foundation resulted in no significant change in physician awareness of the campaign between 2014 and 2017 (Colla & Mainor, 2017). The adoption of the 10 Choosing Wisely® OT practice recommendations was driven by AOTA members. Over 4,000 members completed surveys providing suggestions for 10 best practice recommendations. AOTA members received information through AOTA channels, including social media, the AOTA website, *OT Practice*, and the *American Journal of Occupational Therapy* (AJOT).

The information regarding Choosing Wisely® is not readily accessible to non-AOTA members. Occupational therapists who are not AOTA members were not involved in developing or promoting the campaign. As of May 2023, there were 144,840 occupational therapists in the United States (U.S. Bureau of Labor Statistics, 2023). Only 65,000 were members of AOTA (45% membership) (AOTA, n.d.-b). According to the New York State Department of Education (2022), there were 13,663 occupational therapists and 4,111 certified occupational therapy assistants licensed in the state. A. Ross, Director of Member Engagement at AOTA (personal communication, October 12, 2022), said the number of New York AOTA members is 1400 (8% membership).

This research-based project will provide education and awareness for occupational therapists in academia. The Choosing Wisely® in Academia educational program will provide strategies to include Choosing Wisely® in the classroom and clinic curricula, creating a means of disseminating information to clinicians who may not have the information readily accessible.

Other barriers to implementing EBP, as reported by students, include divergences in clinical assessment and interventions learned in school versus those seen in the clinic (Thomas et al., 2017). Students report a lack of time and limited modeling of EBP by clinicians as barriers to the adoption and implementation of EBP (Bozzolan et al., 2014). Lastly, clinically-based occupational therapists report barriers to staying current with EBP, as outlined in the Choosing Wisely® campaign. These include shortages of resources, financial concerns, time constraints, reading the literature, limited confidence in

applying the literature, and a lack of formal education in the principles of EBP (Colaianne & Provident, 2010; Mulligan et al., 2014; Thomas et al., 2017).

The Choosing Wisely® campaign can serve as a quick reference tool for most current EBP. With academic OT programs incorporating Choosing Wisely® in the curricula, students and FWEs can bring Choosing Wisely® recommendations to clinicians in fieldwork sites. Strategies taught in the Choosing Wisely® in academia educational program can bring concepts from the classroom to the clinic. Students and occupational therapists in academia offer unique perspectives on the strengths and challenges of EBP because they often participate in research, classroom activities, and assignments related to EBP. Academic settings allow access to multiple databases that clinicians cannot access. Universities have affiliations and memberships with associations (Thomas et al., 2017). Despite the systematic process of EBP, a research-practice gap exists (Lizarondo et al., 2011). Students and occupational therapists in academia can fill gaps in practice by sharing the Choosing Wisely® initiative to support EBP in their clinical settings.

Review of the Literature

History of Choosing Wisely®

The concept of the Choosing Wisely® campaign emerged in 2002 when the ABIM Foundation, the American College of Physicians Foundation, and the European Federation of Internal Medicine led a Physician Charter (Born, 2017). In 2010, Brody called on specialty societies in the United States to identify five tests and treatments that were not meaningful or were overused in patient care (Brody, 2010). The National Physicians Alliance (NPA) provided a grant to disperse the *Five Things* concept through the ABIM Foundation, *Putting Charter into Practice* (ABIM Foundation, n.d.). Three lists were developed that related to Internal Medicine, Family Medicine, and Pediatrics (ABIM Foundation, n.d.). The name Choosing Wisely® came from a group of physicians who suggested “wise choices” accurately reflected the ABIM’s desire to empower patients (Wolfson et al., 2014). In 2012, the ABIM Foundation and *Consumer Reports* launched the Choosing Wisely® campaign (ABIM Foundation, n.d.). With all the literature and publicity, 17 additional specialty partners joined. In 2013, the Robert Wood Johnson Foundation provided the ABIM Foundation with a grant to advance the Choosing Wisely® campaign. The goal was to help medical professionals engage in conversations to reduce unnecessary tests and procedures (ABIM Foundation, n.d.).

Today, the Choosing Wisely® campaign provides recommendations for evidence-based, nonduplicative, and safe practices for over 70+ specialty society partners (ABIM Foundation, n.d.). Special society partners of Choosing Wisely® include, but are not limited to, the American Medical Society for Sports Medicine, the American Academy of Nursing, the American Physical Therapy Association, the American College of Occupational and Environmental Medicine, and the American Psychiatric Association (ABIM Foundation, n.d.). Choosing Wisely® is also an international campaign. Canada, Italy, Australia, Switzerland, and the Netherlands are a few of the 20-plus countries that have joined the international campaign to advance dialogue between health care providers and patients and avoid wasteful, unnecessary assessments and treatments (Born, 2017).

AOTA Adoption of Choosing Wisely®

AOTA committed to adopting the Choosing Wisely® initiative of the ABIM Foundation in 2016 (Gillen et al., 2019). The board of directors and members of AOTA committed to join the campaign in a three-phase process (Gillen et al., 2019). A project champion was recruited. Dr. Glen Gillen, Columbia University, was chosen to lead the charge. The AOTA board of directors approved the initiative. AOTA solicited membership input and obtained final approval from the ABIM Foundation. Phase 1 developed a

plan to build member awareness. AOTA recruited a special interest evidence team to manage this project (Gillen et al., 2019). Members included professional affairs, public affairs, business operations, and general member inquiries (Gillen et al., 2019).

Phase 2 solicited member input through an online survey for ideas for OT services to consider. The prompt was, “Based on your clinical expertise and knowledge of OT evidence, please list up to five OT interventions that you feel SHOULD NOT be included in practice” (Gillen et al., 2019). This survey was open from March to June 2017 and yielded 326 responses (Gillen et al., 2019). It generated a list of 62 items presented to a special interest section volunteer group (Gillen et al., 2019). After the a special interest section review, 12 items remained (Gillen et al., 2019). The project team completed an extensive literature review regarding the 12 items. Another survey was sent to AOTA members via AOTA publications, social media, and online outlets. Members were asked to vote for the top five recommendations. From October to November 2017, this survey yielded 4,860 responses (Gillen et al., 2019). The survey resulted in the final top five recommendations.

The third phase of the process was disseminating the information. With the ABIM Foundation’s permission, the draft list of five recommendations was shared with members of the AOTA during the 2018 AOTA Annual Conference & Expo (Gillen et al., 2019). AOTA’s “5 Things Patients and Providers Should Question” was published on the ABIM Foundation’s Choosing Wisely® website on June 4, 2018 (Gillen et al., 2019). It was also disseminated in AOTA publications, social media, a press release, and other online outlets. Five additional recommendations were added in 2020 to round out the top 10 recommendations. The process to refine and develop the additional five recommendations consisted of an additional online survey. Former surveys were reviewed, and 10 interventions were identified. Members of AOTA were asked to choose five out of the 10 recommendations. This survey yielded 999 responses (Gillen et al., 2019). The special interest section, evidence-based team, and champion Dr. Glen Gillen selected the five additional recommendations after another literature review and collaboration with content experts (AOTA, n.d.-a).

There is a lack of published research regarding occupational therapist and OT student awareness of the Choosing Wisely® campaign. Furthermore, no published studies determine the success of the education provided by AOTA regarding Choosing Wisely®. In the Bhatia et al. (2015) study, only 21% of physicians had heard of Choosing Wisely®.

Choosing Wisely® as EBP, Occupational Therapists in Academia, FWEs , and Fieldwork Students

Using a thoughtful combination of research, clinical expertise, and patient decisions to create a plan of care promotes EBP (Thomas et al., 2017). Even with the significant data supporting EBP, a qualitative study by Krueger et al. (2020) suggested that practicing occupational therapists implement EBP less often than once a week. Lyons et al. (2011) indicated that occupational therapists support EBP but are not confident in their abilities to locate the research and appraise it for clinical decision-making. Mulligan et al. (2014) found that occupational therapists expressed the need for ongoing professional development activities in EBP and a body of literature on EBP related to OT. They expressed the desire for the allotted time to research EBP (Mulligan et al., 2014). Thomas et al. (2017) suggested clinicians identify a lack of time to access, read, and appraise the literature; limited confidence in applying the principles of EBP; a lack of formal education in EBP; and negative perceptions about the usefulness of research findings in clinical practice as barriers to practicing evidence-based concepts. Adopting and implementing the Choosing Wisely® recommendations was a rigorous process conducted by AOTA members.

OT program curricula are mandated by the Accreditation Council for Occupational Therapy Education (ACOTE) to provide an EBP education. As of August 2022, the preamble of the ACOTE standards states that students must:

Be able to plan and apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life, as informed by the Occupational Therapy Practice Framework. (ACOTE®, 2018, p. 2)

According to Boström et al. (2018), students were found to use more EBP approaches and reference the research more than occupational therapists. EBP curricula should be strengthened in educational programs to equip future occupational and physical therapists with essential knowledge and skills (Lampe et al., 2019). This ensures graduates are confident and competent in EBP as occupational therapists (Thomas et al., 2017). Confident and competent students will acknowledge that EBP is a foundation of the profession, and it needs to be emphasized in the classroom and clinical settings (Thomas et al., 2017). When students are adequately trained and mentored using EBP, their confidence and implementation of EBP will increase (Lampe et al., 2019). Empowering students with this foundation and the proper tools and strategies to promote EBP may inspire occupational therapists' application of EBP in their OT process.

During her Eleanor Clarke Slagle lecture, Holm (2000) challenged occupational therapists to use EBP. She stated, "We also have an obligation to improve our research competencies, to develop the habit of using those competencies in everyday practice, and to advance the evidence base of occupational therapy in the new millennium" (p. 584). Clinicians have suggested several barriers to implementing EBP in their practice; students can bridge the gap using Choosing Wisely® as a snapshot of EBP as they transition from the classroom to the clinic. With the support of occupational therapists in academia, including faculty and academic fieldwork coordinators (AFWCs), the recommendations of Choosing Wisely® can be shared, supported, and ultimately practiced in the clinical setting. EBP training should start early. Starting EBP training in curricula provides a foundation for the future of OT. Choosing Wisely® can be a quick reference to 10 of the most important guidelines to follow in OT practice.

Method

Research Design

The study used a one-group, mixed method, non-experimental descriptive research design to determine if the Choosing Wisely® in Academia educational program changed participants' awareness of the Choosing Wisely® campaign, increased positive perception of the Choosing Wisely® campaign, and/or increased willingness to incorporate Choosing Wisely® in OT program curricula. The participants completed a pre and post program survey.

Participant Recruitment

Participants were recruited based on the following inclusion criteria: They must be an occupational therapist and a member of the Metropolitan Occupational Therapy Educational Council of New York and New Jersey (MOTEC-OT). MOTEC-OT serves as a consortium of 16 schools in the New York area and seven from the New Jersey area. There are 39 AFWCs, 23 program chairpersons/directors, and three community fieldwork representatives who serve on this council (MOTEC-OT, n.d.). The potential participants all worked in academia.

Instrument

Data were collected through a self-administered, electronic, questionnaire-based pre and post program survey. Survey questions were developed using open comments and a 5-point Likert-type scale via Qualtrics Software (<https://www.qualtrics.com>).

Educational Program

The educational program was a 40-min program with 20 min allotted for questions and answers and survey participation. It was hosted virtually via Zoom software (<https://www.zoom.us>). The author provided a PowerPoint presentation highlighting the 10 Choosing Wisely® recommendations, the history of AOTA's adoption of Choosing Wisely®, and strategies to implement Choosing Wisely® as a tool for OT program classroom and clinical curricula. An interactive question-and-answer discussion ignited deeper conversation among the participants and this author. The participants completed the pre survey before the program and the post survey during the last 10 min of the program.

Outcome Measures

Pre Program Survey

The pre program survey measured the participants' familiarity with the Choosing Wisely® campaign, their perception of the campaign, their understanding of why AOTA adopted the campaign, and their use of Choosing Wisely® as a teaching tool for EBP. It contained 5-point Likert-type and open-ended questions. Demographic questions were also included in the pre program survey.

Post Program Survey

The post program survey was the same as the pre program survey; however, demographic questions were not included. Pre and post program median scores were compared to determine the effectiveness of the program in changing the participants' awareness of why AOTA adopted the Choosing Wisely® campaign, increasing positive perception of the Choosing Wisely® campaign, and/or increasing the willingness to incorporate Choosing Wisely® as a teaching tool into OT program curricula. Examples of pre/post program survey questions are found in Table 1.

Data Analysis

Quantitative data were exported to SPSS v. 28.0™ (IBM, 2021) for analysis. Qualitative data were thematically coded to analyze and interpret open-ended questions (Doyle et al., 2017). The first author interpreted the data. The interpreted data were separately corroborated by an AFWC with 30+ years of experience and was analyzed for program outcomes.

A comparative data analysis was completed to maintain participant anonymity. The participants were asked to include a non-identifying, random code to both the pre and post program survey to maintain participant confidentiality. A descriptive approach was used to describe the demographic profile as well as examine the participants' familiarity of the Choosing Wisely® campaign, their perception of the Choosing Wisely® campaign, their understanding of why AOTA adopted the campaign, and their use of Choosing Wisely® as a teaching tool in their OT program curricula and with fieldwork sites. A Wilcoxon Signed Rank test was used to measure changes after the participants completed the Choosing Wisely® in Academia educational program. Alpha was set at .05.

Qualitative analysis included examining open-ended questions. The questions were analyzed, and the themes were identified through thematic coding. The researcher developed themes first and delivered them to the corroborator, who is familiar with Choosing Wisely® and has 30+ years of experience, including being an AFWC. The corroborator had no feedback or changes, and the interpretation was confirmed.

Table 1*Pre/Post Program Survey Questions*

1.	Are you familiar with the Choosing Wisely campaign? Very familiar, Somewhat familiar, Neither familiar or unfamiliar, Somewhat unfamiliar, Unfamiliar
2.	How did you hear about the Choosing Wisely Campaign? AOTA Website/correspondence, AOTA conference, State Association conference, Podcast/social media, Colleague or friend/Word of mouth, In OT educational program from a student
3.	What is your perception of the Choosing Wisely campaign? Like a great deal, Like somewhat, Neither like nor dislike, Dislike somewhat, Dislike a great deal
4.	Explain why you like or dislike the Choosing Wisely campaign.
5.	Do you understand why AOTA adopted the Choosing Wisely campaign? Extremely clear, Somewhat clear, Neither clear nor unclear, Somewhat unclear, Extremely unclear
6.	Please explain why the AOTA adopted this campaign.
7.	Do you incorporate EBP in the courses you teach? Always, Most of the time, About half the time, Less than half the time, Never
8.	Do you use the Choosing Wisely campaign as a teaching tool for EPB? Always, Most of the time, About half the time, Less than half the time, Never
9.	How do you use Choosing Wisely as a teaching tool?
10.	As the AFWC, do you reference the Choosing Wisely campaign as a teaching tool with the fieldwork site? Always, Most of the time, About half the time, Less than half the time, Never
** Post Survey Question Changes	
Now that you participated in the Choosing Wisely in Academia educational program...	
1.	What is your perception of the Choosing Wisely campaign NOW? Like a great deal, Like somewhat, Neither like nor dislike, Dislike somewhat, Dislike a great deal
2.	Explain why you NOW like or dislike the Choosing Wisely campaign?
3.	Do you NOW understand why the AOTA adopted the Choosing Wisely campaign? Extremely clear, Somewhat clear, Neither clear nor unclear, Somewhat unclear, Extremely unclear
4.	Please explain why the AOTA adopted this campaign.
5.	Will you NOW incorporate EBP in the courses you teach? Always, Most of the time, About half the time, Less than half the time, Never
6.	Will you NOW use the Choosing Wisely campaign as a teaching tool for EBP? Always, Most of the time, About half the time, Less than half the time, Never
7.	How will you use Choosing Wisely as a teaching tool?

Results**Participants**

Fifteen occupational therapists met the inclusion criteria, attended the Choosing Wisely® in Academia educational program, and completed the pre/post program survey. The participants' demographic information can be found in Table 2.

Table 2*Sociodemographic Characteristics of Participants*

	Baseline Characteristics	Full Sample	
		<i>n</i>	%
Gender	Male	14	93
	Female		
	Transgender female		
	Transgender male		
	Gender variant/ nonconforming		
	Not Listed		
	Prefer not to answer	1	7
Race	White	12	80
	Black or African American	2	13
	American Indian or Alaska Native	1	7
	Asian		
	Native Hawaiian or Pacific Islander		
	Two or more Races		
	Other	13	87
Ethnicity	Non-Hispanic		
	Hispanic	1	7
	Did not answer	1	7

Baseline Characteristics		Full Sample	
		<i>n</i>	%
Years of experience	0–5	5	33
	6–10	4	27
	11–15	3	20
	16–20	1	7
	20+	2	13
Role	AFWC with teaching	6	40
	AFWC without teaching	1	7
	Program Director/chair with teaching	4	27
	Program Director/chair without teaching	1	7
	Non tenured/Adjunct	1	7
AOTA Membership	Yes	15	100
	No	0	0

Note. *N* = 15; AFWC = Academic Fieldwork Coordinator; AOTA = American Occupational Therapy Association.

Survey Results

The median difference between pre and post program surveys of the Choosing Wisely® in Academia educational program was compared (see Table 3). Results show a statistically significant improvement in positive perceptions of the Choosing Wisely® campaign ($Z = 2.72$, $p < .01$), understanding of why AOTA adopted the campaign ($Z = 2.82$, $p < .01$), the use of Choosing Wisely® as a reference for EBP in teaching ($Z = 3.24$, $p = .001$), and AFWCs' willingness to reference Choosing Wisely® when communicating with fieldwork sites and clinicians ($Z = 2.23$, $p < .05$). The change in use of EBP in teaching was not significant ($Z = .541$, $p > .05$) (see Table 3).

One hundred percent of the participants were AOTA members, and only one had never heard of the Choosing Wisely® campaign (see Table 4 for participant familiarity.)

Table 3

Comparison Pre/Post Data Choosing Wisely Program

		Median		<i>z</i> -score	<i>p</i>
		Pre	Post		
What is your perception of CW?	5 - Like a great deal	4	5	2.72	.006**
	4 - Like somewhat				
	3 - Neither like nor dislike				
	2 - Dislike somewhat				
	1 - Dislike a great deal				
Do you understand why AOTA adopted CW?	5 - Extremely clear	4	5	2.81	.005**
	4 - Somewhat clear				
	3 - Neither clear nor unclear				
	2 - Somewhat unclear				
	1 - Extremely unclear				
Do you incorporate EBP in courses you teach?	5 - Always	5	5	.541	.589
	4 - Most of the time				
	3 - About half the time				
	2 - Sometimes				
	1 - Never				
Do you use CW as a teaching tool?	5 - Always	2	4	3.24	.001***
	4 - Most of the time				
	3 - About half the time				
	2 - Sometimes				
	1 - Never				
As the AFWC, do you reference CW as a teaching tool with the FW site?	5 - Always	2	5	2.23	.026*
	4 - Most of the time				
	3 - About half the time				
	2 - Sometimes				
	1 - Never				

Note. *N* = 15 for comparisons with all except questions pertaining specifically to AFWC. *n* = 7 for AFWC questions, CW = Choosing Wisely, AOTA = American Occupational Therapy Association, EBP = evidence-based practice, AFWC = Academic Fieldwork Coordinator, FW = Fieldwork, * statistically significant at $< .05$, ** statistically significant at $< .01$, *** statistically significant at $< .001$.

Table 4*Participant Familiarity with Choosing Wisely*

	<i>n</i>	<i>%</i>
Very familiar	6	40
Somewhat familiar	8	53
Neither familiar nor unfamiliar	0	0
Somewhat unfamiliar	0	0
Unfamiliar	1	7

Note. *N* = 15.

Six corroborated themes emerged from the participants' responses to the open-ended questions from the pre/post program survey. The themes include:

1. Choosing Wisely® promotes occupation/EBP.
2. Choosing Wisely® offers an opportunity for occupational therapists to be included among other evidence-based health care practitioners.
3. Choosing Wisely® is too restrictive.
3. Participants will now incorporate Choosing Wisely® as a teaching tool in classroom learning.
4. The Choosing Wisely® in Academia educational program provided strategies to use Choosing Wisely® as a way to promote occupation, evidence-based, best practice.
5. Choosing Wisely® ignites discussion and helps protect consumers.

Text data illustrating the themes can be found in Table 5.

Table 5*Themes and Sample Quotes from Open Forum Questions*

Choosing Wisely promotes occupation/EBP	<ul style="list-style-type: none"> ○ "Choosing Wisely supports Occupation-Based Practice" ○ "Choosing Wisely provided Occupation-Based Practice" ○ "Interventions should be exclusively Occupation-Based" ○ "It helps therapists focus on purposeful activities" ○ "It helps with reflection and treatment planning to promote EBP"
Choosing Wisely offers opportunity for occupational therapists to be included among other evidence-based health care practitioners	<ul style="list-style-type: none"> ○ "I like that Choosing Wisely is a program that is not just OT" ○ "I believe it's a program of ABIM so it's good to see OT actually included in something like this" ○ "I believe AOTA adopted the campaign to clarify some of our practices and educate the public, other health care providers, and OT occupational therapists as well. I imagine AOTA was invited to participate and felt it was important to join this conversation."
Choosing Wisely is too restrictive	<ul style="list-style-type: none"> ○ "The guidelines are meaningful; however, they can be overemphasized and become too restrictive" ○ "Makes us look stupid" ○ "Appears Patronizing to OT professionals"
Participants will incorporate Choosing Wisely as a teaching tool in classroom learning	<ul style="list-style-type: none"> ○ "I use Choosing Wisely as a teaching tool, as a tool for treatment planning" ○ "I use Choosing Wisely as a teaching tool, as clinical example,s and to foster further clinical reasoning" ○ "I use the Choosing Wisely teaching tool to explain the importance of occupation-based intervention" ○ "I think I can expand upon the final project for the fieldwork seminar and make it more aligned with the areas of focus of CW campaign" ○ "Introduce occupation kits pertinent to mental health practice, especially sensory focused recommendations"
The Choosing Wisely in Academia educational program provided strategies to use Choosing Wisely as a way to promote occupation, evidence-based, best practice	<ul style="list-style-type: none"> ○ "Introduces actionable strategies as opposed to imposing restrictions" ○ "Practical and great ideas" ○ "Very informative regarding fieldwork students and educating students early on in their education"
Choosing Wisely ignites discussion and helps protect consumers	<ul style="list-style-type: none"> ○ "It helps consumers make decisions about services that are potentially harmful" ○ "It ignites discussion and hopefully protects consumers" ○ "Important discussion and hopefully protects consumers"

As presented in Table 3, the data show that the developed Choosing Wisely® in Academia training program was successful because most areas considered had a statistically significant change. The outcomes indicate that after learning more about the Choosing Wisely® campaign, the participants had an increase in positive perceptions, an increase in understanding of why AOTA adopted Choosing Wisely®, and a

likelihood of using Choosing Wisely® as a reference for EBP. The most significant change came from AFWCs, who will reference Choosing Wisely® recommendations when collaborating with clinicians in fieldwork. Occupational therapists in academia who promote the Choosing Wisely® recommendations to clinicians will facilitate an awareness of the 10 EBP recommendations and evidence-based applications for students learning in a clinical environment. The one area that did not demonstrate a significant change was the participants' use of EBP in the courses they teach. The pretest scores were high (median 5). The participants' responses indicate they use EBP "always" in courses they teach. With a high pretest, a ceiling effect was created. Perhaps this is because the educators follow ACOTE's mandate of teaching from an evidence-based perspective.

Based on the pre and post data as well as including the qualitative comments, it seems that this program helped promote Choosing Wisely® as a tool to further promote occupation/EBP, as a way for occupational therapists to be included among other evidence-based practitioners, and as a means to ignite discussion and protect consumers. The participants suggested a plan to use Choosing Wisely® as a teaching tool and identified ways to include Choosing Wisely® in classrooms and curricula. Teaching strategies that the participants suggested included flipping the classroom to teach Choosing Wisely® through experiential projects, in fieldwork correspondence, and using occupation-based kits that were referenced in the training program.

The participants also shared concerns regarding the Choosing Wisely® campaign, including its being too restrictive and patronizing. When comparing the quantitative scoring for those who had negative opinions of Choosing Wisely® recommendations, the Choosing Wisely® in Academia training program did increase their understanding of why it was adopted (increased rating from a score of 4 to 5). After the training program, one participant, whose impression was negative, stated they would use Choosing Wisely® as a reference in EBP, while the others remained neutral or undecided. The participants who were already familiar with it and had a positive impression remained unchanged in their perceptions and knowledge. They are now more likely to reference EBP as a tool and when communicating with fieldwork sites.

The post program survey also measured if the participants thought AOTA should continue the Choosing Wisely® campaign. The results provide a mean score of 4.5 ($sd = .617$) with choices 5 = *strongly agree*, 4 = *somewhat agree*, 3 = *neither agree nor disagree*, 2 = *somewhat disagree*, 1 = *strongly disagree*. This shows that even those who do not fully embrace the Choosing Wisely® campaign agree that the recommendations are valuable and that AOTA should continue promoting the Choosing Wisely® recommendations (see Table 6).

Table 6
Ten Recommendations of the Choosing Wisely® Campaign

1. Don't provide intervention activities that are non-purposeful (e.g., cones, pegs, shoulder arc, arm bike).
2. Don't provide sensory-based interventions to individual children or youth without documented assessment results of difficulties processing or integrating sensory information.
3. Don't use physical agent modalities (PAMs) without providing purposeful and occupation-based intervention activities.
4. Don't use pulleys for individuals with a hemiplegic shoulder.
5. Don't provide cognitive-based interventions (e.g., paper-and-pencil tasks, table-top tasks, cognitive training software) without direct application to occupational performance.
6. Don't initiate occupational therapy interventions without completion of the client's occupational profile and setting collaborative goals.
7. Don't provide interventions for autistic persons to reduce or eliminate "restricted and repetitive patterns of behavior, activities, or interests" without evaluating and understanding the meaning of the behavior to the person, as well as personal and environmental factors.
8. Don't use reflex integration programs for individuals with delayed primary motor reflexes without clear links to occupational outcomes.
9. Don't use slings for individuals with a hemiplegic arm that place the arm in a flexor pattern for extended periods of time.
10. Don't provide ambulation or gait training interventions that do not directly link to functional mobility.

Note. Adapted from <https://www.aota.org/practice/practice-essentials/evidencebased-practiceknowledge-translation/aotas-top-10-choosing-wisely-recommendations>

Discussion

Choosing Wisely® recommendations can be used for best practice initiatives in OT, including EBP. Occupational therapists support EBP but are not confident in their ability to locate and appraise the research for clinical decision-making (Lyons et al., 2011; Patel et al., 2017). Evidence indicates that limited time, inadequate research skills, and inadequate access to cost-related journals prevent clinicians from remaining current on EBP (Patel et al., 2017). Evidence also shows that despite barriers to EBP, clinicians have a positive attitude toward EBP (Nascimento et al., 2020). Subsequently, clinicians are more likely to embrace EBP when their employers embrace a culture of scholarly activity that supports partnerships with professional practice organizations, invests in research activities, and promotes student supervision (Thomas & Law, 2013; Nascimento et al., 2020). Kielhofner (2005) discusses a Scholarship of Practice Collaborative Model in which theory, research, and practice are interwoven. AOTA's adoption process of Choosing Wisely® follows this interwoven model. The results of this study show that the research behind this movement should change practice. "Educational institutions should lay the foundation for expectations of safe practice in the clinical setting" (Gropelli & Shanty, 2018, p. 289). Students, occupational therapists in academia, and especially AFWCs who are familiar with the Choosing Wisely® recommendations can facilitate carry-over from classroom to clinical practice. The collaboration between occupational therapists in academia, students, and clinicians will promote EBP and eliminate harmful, unnecessary, and non-EBP.

Academic institutions need to support all clinical fieldwork sites and continue to promote the most current research and data to optimize patient treatment and outcomes. Factors supporting research in clinical settings include university support and partnerships (Thomas & Law, 2013). Students, AFWCs, and occupational therapists in academia support clinicians and decrease the barriers clinicians identify. For example, AFWCs have consistent contact/correspondence with practicing clinicians, especially those who serve as FWEs; therefore, AFWCs can reference the Choosing Wisely® campaign as a snapshot or common ground for best EBP. They can provide access to journals through university libraries, and students can share current knowledge learned through the curriculum.

The educational program described in this paper targeted occupational therapists in academia with a particular focus on the responses of AFWCs. The Choosing Wisely® training program facilitated AFWC's reflection on their support of their FWEs. The Choosing Wisely® in Academia training program provided strategies for AFWCs and occupational therapists in academia to use as a bridge from classroom to clinic experiences. It is important for AFWCs to support the student's knowledge in their correspondence with clinicians. Students may not feel comfortable bringing the recommendations of Choosing Wisely® to their FWEs. According to Gropelli and Shanti (2018), students' perception of safety in clinical settings revealed more than one-third of students thought mistakes would be held against them and they are afraid to speak up if they see something. If a student witnesses clinicians providing interventions against the Choosing Wisely® best practice recommendations, they may feel uncomfortable addressing the clinician, therefore, it is imperative that AFWCs and occupational therapists use strategies taught in the Choosing Wisely® in Academia educational program. AFWCs were encouraged to send fieldwork sites Best Practice Choosing Wisely® recommendations and initiate conversations that raise awareness for the Choosing Wisely® best practice resources. This will serve as a bridge from classroom to clinic experiences and support students' sharing of their classroom knowledge of Choosing Wisely® best practices.

The results of the Choosing Wisely® in Academia training program were favorable and supported that OT professionals who learned more about the Choosing Wisely® campaign had an increase in positive perceptions of the campaign as well as a significant increase in their understanding of why AOTA adopted the campaign. Furthermore, this program acclimated AFWCs with the campaign and increased their willingness to share the campaign's recommendations when collaborating with fieldwork supervisors and clinicians.

Limitations and Future Direction

A limitation of the study was the small, self-selected sample of 15 homogeneous participants who live in the same demographic area of the Northeast. Consequently, outcomes of this program may not apply to the overall OT professional population, both nationally and internationally. The sample was recruited from one group of educators. Therefore, this small convenience sample can increase the chance of selection bias and impact the generalizability of this study. Future programs should collect a larger sample size, expand to a larger demographic area, and target non-AOTA members.

As of July 2023, AOTA released a statement on their website announcing, “An Update on AOTA’s Best Practice Recommendations (Formerly Choosing Wisely®)” (AOTA, n.d.-a). The ABIM Foundation is shifting its focus from the Choosing Wisely® campaign; however, AOTA considers the recommendations from the Choosing Wisely® campaign as EBP initiatives for OT program curricula and occupational therapists. Furthermore, these recommendations will continue to be reviewed by the AOTA annually to ensure recommendations remain aligned with the best EBP initiatives for the OT profession. The data collected through this member survey indicates that occupational therapists agree that AOTA should continue with the recommendations. This research supports the continued promotion of a snapshot tool with best practice recommendations that are published by our national organization. The Choosing Wisely® in Academia educational program will be offered to a larger audience. The name of the seminar will remain consistent with AOTA’s “Best Practice Recommendations.” The educational program will continue to provide the latest updates as AOTA reviews the recommendations annually. The results of this study were presented at the 2024 AOTA conference and expo. Future educational programs will focus on larger audiences targeting non-AOTA members. Follow-up surveys will be administered to participants of previous educational programs for sustainability.

Conclusion

Findings conducted by Thomas et al. (2017) suggest that it is essential to have a well-developed EBP curriculum to ensure that graduates are confident and competent evidence-based occupational therapists. Students learning the Choosing Wisely® recommendations as part of program curricula can help to ensure that 10 of the most relevant EBP recommendations, as outlined in the Choosing Wisely® campaign, are consistently and confidently in practice. EBP in the clinical context is most important, and academic programs should be designed to apply EBP in the clinical context as often as possible (Thomas et al., 2017).

The Choosing Wisely® in Academia educational program provides strategies for OT professionals in academia to incorporate 10 evidence-based recommendations for practice in the class, which can transfer to application in the clinic. Students acknowledge that EBP is a foundation of the profession, and it needs to be emphasized in both clinical and classroom environments (Thomas et al., 2017). This training program for OT professionals in academia successfully highlighted the Choosing Wisely® best practice guidelines and provided strategies for incorporation in classroom and clinical curricula.

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