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Abstract

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Keywords

Clinical competence, academic success, student self-assessment, occupational therapy fieldwork, therapeutic use of self

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Therapeutic Use of Self and Fieldwork Experience: An Exploration of the Art and Science of Occupational Therapy

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ABSTRACT

The clinical practice of occupational therapy has been described as a blend of both art and science. For occupational therapy students, Level II fieldwork experiences offer early opportunities to refine both client-centered attitudes and scientific aptitude in relationship-based caregiving. In this retrospective study, researchers examined the ability to predict final Fieldwork Performance Evaluation scores from the following noncognitive (i.e., art) and cognitive (i.e., science) variables: ranked student responses to the Self-Assessment of Modes Questionnaire (v.II); undergraduate grade point average (GPA; cumulative and science), and Graduate Record Examination (GRE) scores (quantitative, verbal, and analytic). Using a series of simple linear regressions, researchers analyzed data from sixty-nine master's-level occupational therapy students. For the first Level II fieldwork experience, empathizing and empathizing-revised modes appeared to be a significant predictor with moderate, positive correlation coefficients (p=.008, r=.329; p=.01, r=.296, respectively). For the second Level II fieldwork experience, collaborating and instructing modes appeared to be significant predictors (p=.036, r=-.255; p=.037, r=.254 respectively). GPA and GRE scores were not predictive of fieldwork success. The degree to which art and science shape expectations for relationship-based client interactions during fieldwork experiences requires further investigation. However, calling attention to occupational therapy students' preferred communication modes highlight how client interactions may be shaped to fit the students' natural tendencies rather than the needs of the client.

Introduction

In a foundational article, Wood (1995) described the clinical practice of occupational therapy (OT) as the blend of both art and science, using the metaphor of a woven tapestry to illustrate the intricately layered relationship between the occupational therapist or occupational therapy assistant and the client. Recognizing that this multidimensional, relationship-based approach to 'bedside manner' (Parnas & Isobel, 2018) has the power to influence client health outcomes (Turpin, 2007; Wood, 1995), OT practitioners seek to weave both *artistic* (i.e., non-cognitive) and *scientific* (i.e., cognitive) personal interactions into the fabric of the client relationship to optimize engagement in meaningful occupation.

Learning to employ this "therapeutic use of self" (Davidson, 2011, p. 87) as a treatment modality often begins when students enter didactic OT education. According to Taylor (2008), "therapeutic use of self" is "the extent to which one can apply empathy and intentionality... to resolve evocative interpersonal events in practice" (p.1). For some, the application of both *art* and *science* in client interaction comes naturally; others may struggle to use their personality, perceptions, and acquired skills to engage in individualized interactions successfully.

While the use of self as a therapeutic tool is introduced and reinforced during OT education (Davidson, 2011; Solman & Clouston, 2016), the most accurate test of a student's ability to connect with clients often occurs during Level II fieldwork (FW) experiences. There, students have the opportunity to learn through role modeling and apply theory and techniques learned in the classroom (Amini & Gupta, 2021). Required for entry-level practice, students must demonstrate not only scientific aptitude but excellence in client-centered attitude and reciprocal interpersonal interactions. This contemplative reality begs several questions of OT faculty, like how to select applicants who are most likely to succeed in FW, how therapeutic use of self should be taught in OT programs, and how 'bedside manner' can be measured objectively. For this study, researchers were interested in exploring if, or how, OT students' intrinsic artistic and scientific capacities influenced FW success.

The Art of Occupational Therapy

The art of OT is grounded in a humanistic philosophy of respect for a person and a focus on developing meaningful relationships (Peloquin, 1989; Wood, 1995). It includes the integration of individualized treatment with clinical reasoning and respect for the client's whole self when considering goals and values within every facet of treatment (Peloquin, 1989; Turpin, 2007; Wood,1995). According to Lemay and colleagues (2007), the application of non-cognitive factors such as empathy, advocacy, and collaboration help to create quality relationships between the practitioner and client. Regrettably, occupational therapists' artfulness is often challenging to measure. Fast-paced healthcare systems or academic programs may not value this attribute as highly as the application of medical knowledge and expedient task completion. Therefore, the art of OT may require substantiation of clinical quality from additional objective sources.

The Science of Occupational Therapy

The science of OT is rooted in clinical skills, knowledge foundation, assessments, interventions, re-evaluation, and evidence-based practice (Peloquin, 1989). It reflects one's aptitude through the application of reasoning, understanding, and critical thinking. These cognitive skills are fundamental to functioning in today's healthcare system, one that demands scientific competence and objective measurements (Peloquin, 1989). This crucial focus is evident throughout the journey to become an OT practitioner, as materials adopted to recruit, admit, educate, and evaluate students heavily emphasize the scientific tenets of OT. This scientific emphasis continues in clinical practice, as medical documentation does not typically require practitioners to document how they used "artistry" or non-cognitive modalities to optimize treatment outcomes (Wood, 1995).

Occupational Therapy Student Recruitment and Admissions

In the OT profession, the development of practitioners skilled in both the art and science of client interaction begins before matriculation in an academic program. A growing body of evidence supports the implementation of non-cognitive selection criteria to identify students who may possess skills critical to client interaction (Gutman & Falk-Kessler, 2016; Li et al., 2017). However, discrepancies remain as to the most influential factors that predict future professional success (Kirchner & Holm, 1997; Lysaght et al., 2009). Accordingly, most academic and professional programs prioritize standardized testing (e.g., SAT, ACT, GRE) and grade point average (GPA) when making admission decisions, primarily due to the cognitive psychological principles and allure of ease of use (Fortuna, 2018; Tough, 2012).

Didactic Education

A shared goal of many OT programs is to recruit academically strong students (those who can translate the science of practice) and those who can connect with their clients in a way that builds relationships and fosters collaborative goal achievement (the art of practice). Educational programs are tasked with introducing students to both aspects of practice through coursework emphasizing foundational liberal arts and science content, and the basic tenets and process of OT, including the application of self as a therapeutic modality to optimize client-centered care (ACOTE, 2018).

Carstensen and Bonsaksen (2017) posited that the Self-Assessment of Modes (SAM) Questionnaire (v.II) might be used to meet educational standards related to the *art* of practice and to evaluate how a student naturally communicates with a client. The SAM Questionnaire (v.II) is grounded in the Intentional Relationship Model (IRM), which introduces the concept of therapeutic use of self (Taylor, 2008). According to the IRM, OT practitioners naturally use six therapeutic "modes" consistent with fundamental personality characteristics to relate to clients and develop client-therapist relationships at a holistic level (Taylor, 2008; Taylor, 2020). After respondents complete the SAM Questionnaire, preferred communication styles, or therapeutic modes, are identified: *advocating, collaborating, empathizing, encouraging, instructing,* or *problem-solving* (see Appendix A).

Fieldwork Experience

Following didactic education, OT students often have their first opportunity to begin weaving together these artistic and scientific threads of practice in their Level II FW experiences. In FW, students are responsible for transmitting the profession's values and beliefs through the delivery of proctored OT services. They are expected to "...demonstrate the attitudes and skills of an entry-level practitioner... (Commission on Education, 2013, p. 3). Success in FW is measured using the American Occupational Therapy Association (AOTA) Fieldwork Performance Evaluation for the Occupational Therapy Student ([FWPE]; AOTA, 2002). The FWPE includes 42 student performance items scored using a one- to four-point rating scale and open comment boxes. Fieldwork Educators administer the FWPE upon completion of each 12-week Level II experience. The FWPE provides students with an accurate assessment of strengths and challenges concerning their performance providing occupational therapy services. A final score of 122 – 168 is required to indicate a passing score and entry-level competency. While one strength of this form of assessment is its ability to objectively capture the student's scientific potential and their ability to interact with colleagues, some have argued it inadequately measures the artistry of client-centered practice, including the therapeutic use of self (Fortuna, 2018; Turpin, 2007).

There is general agreement within the profession that the ability of OT practitioners to meet the unique needs of their clients is central to the development and maintenance of a productive therapeutic relationship (Schwank et al., 2018). In FW, OT students begin weaving clinical knowledge with the "artful, selective, or intuitive use of personal attributes to enhance therapy" (Taylor, 2008, p. 5). However, there is a paucity of research examining how, or if, art factors (such as therapeutic use of self) or science factors (such as standardized measures of academic aptitude) influence OT student success in Level II Fieldwork experiences. Therefore, researchers sought to answer questions related to the predictability of final FWPE scores using the following:

- Ranked student responses to the Self-Assessment of Modes Questionnaire (v.II)
- Undergraduate GPA (cumulative and science), and
- GRE scores (quantitative, verbal, and analytic).

Researchers hypothesized that (1) the therapeutic modes of collaboration, empathy, and encouraging would be stronger predictors of student success in FW than advocating, instructing, and problem-solving modes, and (2) cognitive factors would not predict student success in FW.

Methods

Design

Researchers examined the following pre-existing data in this retrospective study: SAM Questionnaire responses provided by students as part of an assignment in the first semester of didactic education, GPA and GRE scores submitted as part of the OT program application (https://www.liaisonedu.com/) and FWPE scores provided by FW educators upon completion of each Level II Fieldwork experience in the final two semesters of the graduate program.

Participants

Researchers used convenience sampling. Participants included a population of three annual cohorts of graduate students who were accepted into and graduated from an accredited master's level occupational therapy program in the United States.

Measures

This study utilized scores from the SAM Questionnaire, a valid and reliable tool used by health professionals or students to assess communication with clients (Taylor, 2008). The self-scored questionnaire presents client scenarios, wherein respondents answer questions as if facing the situation in real-time practice. The questionnaire identifies predominant modes of responding, categorized as advocating, collaborating, empathizing, encouraging, instructing, or problem-solving. There are no incorrect responses to the client scenarios; the idea is to ascertain which of the six modes feels most natural to the respondent at the time. Students in this study used the "Therapeutic Mode Use Key" (Taylor, 2008) to total their response scores. They then identified a ranked list of modes (1 = "most natural" mode, 6 = "least natural" mode) based on total scores in each mode. In the case of a tie, students determined which mode felt more, or less, natural to determine the final ranking.

The FWPE is used to measure the entry-level competence of the OT student and "reflects the 1998 Accreditation for the Council for Occupational Therapy Education Standards and the National Board for Certification in Occupational Therapy, Inc. Practice Analysis results" (AOTA, 2002, p. 2). For this study, researchers defined fieldwork success as a final passing score on the FWPE.

Procedure

This study was approved by a university Institutional Review Board (IRB-FY2020-205) and determined to be exempt from further review. Researchers labeled the first 12-week FW experience as II(a) and the second as II(b). Data collected were de-identified to protect the confidentiality of the participant's academic and clinical performance records. Each participant was assigned a random number ranging from 1-69. Researchers recorded the following demographic information and data: gender; FW II(a) and II(b) practice settings; ranked responses to the SAM Questionnaire (1= most natural mode to 6=least natural mode); undergraduate GPA (cumulative and science; 4.0 scale); GRE scores (quantitative and verbal, 130-170 scale; analytic, 0-6 scale); and final II(a) and II(b) FWPE scores (range 42-164 points per FWPE). Researchers entered all data into an Excel spreadsheet that was saved in a secure file on a password-protected computer in a faculty researcher's locked office on a university campus.

Results

Participants

Sixty-nine occupational therapy students participated in this study (61 female; 8 male). See Table 1 for a breakdown of fieldwork settings. Average standardized scores were as follows: undergraduate GPA 3.52 (cumulative) and 3.21 (science); GRE 147.74 (quantitative), 149.48 (verbal), and 3.64 (analytic). The respective average final FWPE scores for FW II(a) and II(b) were 135.51 and 141.12.

Table 1
Occupational Therapy Fieldwork Settings

Fieldwork Setting	Fieldwork II(a)		Fieldwork II(b)		
_	N	%	Ν	%	
Pediatric Outpatient	16	23.2	12	17.4	
Adult Inpatient Rehabilitation	12	17.4	12	17.4	
Adult Acute Care	15	21.7	13	18.8	
Adult and Pediatric Multi-Setting	5	7.2	6	8.7	
Skilled Nursing and Subacute Care	8	11.6	2	2.9	
Community-Based Mental Health	3	4.3	NA	NA	
Adult Outpatient and Hand Therapy	9	13	8	11.6	
Pediatric Inpatient	1	1.4	1	1.4	
School System	NA	NA	15	21.7	

Preliminary Analyses

Therapeutic Modes

Prior to performing analyses with the six therapeutic modes and FWPE II(a) and II(b) scores, the frequencies of each ranking in each therapeutic mode category were assessed to ensure equivalent comparisons. Four of the therapeutic modes had similar frequencies in each ranking, indicating the data was evenly distributed. However, there were three participants with the "most natural" rank score of "1" for the empathizing therapeutic mode as well as three participants with the "least natural" rank score of "6" for the encouraging therapeutic mode. Thus, rankings with these low frequencies were omitted for each of the two therapeutic modes. The analyses were performed (1) with these rankings included, and (2) without these rankings (noted as Revised, Table 2).

 Table 2

 Summary Statistics and Correlations with Fieldwork Level II(a) Success

Therapeutic Mode	r	b	p
Advocating	168	-1.16	.167
Collaborating	.064	0.40	.609
Empathizing	.329	0.19	.008*
Empathizing-	.296	1.92	.01*
Revised			
Encouraging	.103	0.61	.409
Encouraging-	.172	1.18	.088
Revised			
Instructing	178	-1.03	.149
Problem Solving	049	-0.29	.689
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^{*}p <.05. **p < .006

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Master of Occupational Therapy Cohorts

The data consisted of three annual cohorts enrolled in a master's program. Preliminary analyses were completed to support merging the three groups for FW success (final score ≥122), cumulative GPA, science GPA, quantitative GRE scores, verbal GRE scores, and analytic GRE scores. Descriptive statistics (N= 69) were calculated to assess the similarity between the groups. A series of one-way ANOVAs were computed to test if the groups were similar to the variables stated above. Homogeneity was met for all but cumulative GPA; therefore, a Kruskal-Wallis Test was also performed. There were no significant differences in FW success, quantitative GRE scores, or analytic GRE scores between the cohorts. Significant differences were found between the cohorts in cumulative GPA, science GPA, and verbal GRE scores; therefore, the influence of these three variables on final FWPE scores was analyzed within each cohort.

Simple Linear Regression

Data Screening

Prior to performing statistical analyses, data (N=69) were screened univariately on the final FWPE scores to assess accuracy, missing data, outliers, and assumptions. Data was accurate, and there was no missing data. There were six total outliers on FW II(a) and eight on FW II(b). Outliers were removed from the analysis only on the variables in which they were outliers. Independence of errors, normality, linearity, homogeneity, and homoscedasticity assumptions were all met.

Analysis

Fieldwork Level II(a). A series of simple linear regressions were performed to determine if the six therapeutic modes were predictive of FW success. For the first Level II experience, empathizing and empathizing-revised modes appeared to be a significant predictor with a moderate, positive correlation coefficient. In other words, students who indicated empathy was "least natural" for them had higher final FWPE scores (see Table 2).

The magnitude of the slope values of two factors (empathizing-revised and encouraging-revised) indicated a notable impact of mode on FWPE scores. The results were clinically relevant, as final FWPE scores increased by 1-2 points. Meaning, as each mode moved in ranking order toward "least natural," FWPE scores increased by 1-2 points. The results for advocating and instructing also highlighted importance, as each mode moved in ranking order toward "least natural," final FWPE scores decreased by 1-2 points.

Fieldwork Level II(b). The collaborating therapeutic mode appeared to be a significant predictor with a moderate, negative correlation coefficient (see Footnote 1 in Table 3). In other words, students who indicated collaboration was "least natural" had lower final FWPE scores. The collaborating factor's slope value also showed clinical relevance, as FWPE scores appeared to *decrease* by almost 2 points. This means that for every position the collaborating mode moved in ranking order toward "least natural," final FWPE scores dropped by 1.86 points.

Table 3
Summary Statistics and Correlations with Fieldwork Level II(b) Success

Therapeutic Mode	r	b	p
Advocating	065	-0.46	.608
Collaborating	255	-1.86	.036*
Empathizing	.058	0.43	.644
Empathizing-	.044	0.36	.368
Revised			
Encouraging	.108	0.85	.378
Encouraging-	.058	0.51	.322
Revised			
Instructing	.254	1.77	.037*
Problem Solving	155	-1.08	.203

The six therapeutic modes were not predictive of fieldwork success when the alpha was adjusted to control for a type I error, p < .006).

The instructing therapeutic mode also appeared to be a significant predictor, with a moderate, positive correlation coefficient (see Footnote 1). Thus, students who indicated instruction-provision was "least natural" to them had higher FWPE scores. The instructing mode's slope value also highlighted importance, as each mode moved in ranking order toward "least natural," final FWPE scores increased by 1-2 points. Also noteworthy was the problem-solving mode's slope value, which influenced final FWPE scores by more than 1 point. When students identified problem-solving as a "least natural" mode of client interaction, final scores decreased by 1.08 points per ranked position.

Cumulative GPA, science GPA, quantitative GRE scores, verbal GRE scores, and analytic GRE scores were analyzed to assess if these variables were predictive of FW II(a) or II(b) success. These cognitive (science) factors appeared not to predict fieldwork success as the results were not significant and revealed small slope (b) and beta (β) values (see Tables 4 - 6).

^{*}p <.05. **p < .006

Table 4

Regression Results of Fieldwork Level II(a) Success by Cohort

Cognitive Factor	2016-2017 Cohort			2017-2018 Cohort			2018-2019 Cohort		
	r	b	р	r	b	р	r	b	p
Cumulative GPA	.025	0.64	.921	215	-6.46	.336	250	-5.22	.253
Science GPA	.007	0.14	.977	106	-3.03	.615	273	-6.50	.208
Verbal GRE	.091	0.17	.696	128	-0.26	.541	226	-0.34	.300

Table 5

Regression Results of Fieldwork Level II(b) Success by Cohort

Cognitive Factor	2016-2017 Cohort			2017-	2017-2018 Cohort			2018-2019 Cohort		
	r	b	р	r	b	р	r	b	p	
Cumulative GPA	.304	2.57	.180	.227	1.62	.309	328	4.58	.126	
Science GPA	.049	1.09	.833	.165	5.46	.432	333	-6.78	.121	
Verbal GRE	.335	0.66	.138	279	-0.65	.177	371	-0.68	.081	

 Table 6

 Regression Results of Fieldwork Level II Success

Cognitive Factor	Fieldwork Level II(a)			Fieldwork Level II(a)			
	r	b	р	r	b	p	
Quant GRE	.039	0.08	.753	088	-0.21	.477	
Analytic GRE	033	-0.64	.789	132	-2.96	.284	

Discussion

There is scant research exploring how art and science factors predict OT student success during FW, practicums, or early practice. One study (Hussain et al., 2018) found that when Norwegian students participated in therapeutic use of self-training, they demonstrated increased self-efficacy, which the authors argued is necessary for effective establishment and maintenance of client-therapist relationships. Increased self-efficacy also increased linearly with higher student age, contradicting findings by Scholz et al. (2002). Opseth and colleagues (2017) found that while not statistically significant, academically stronger students had higher levels of self-efficacy than those with poorer academic results.

Davidson (2011) also studied therapeutic use of self in academic education. She stated that although previous versions of the Occupational Therapy Practice Framework: Domain and Process (AOTA, 2008) and the Standards for Occupational Therapy Education (ACOTE, 2008) both emphasized therapeutic use of self as a critical factor in professional development and practice, content and quality of training related to therapeutic use of self is inadequate (Davidson, 2011). Subsequent revisions of both documents continue to place a consistent emphasis on therapeutic use of self as a component of occupational therapy education despite the "limited amount of research" using the Intentional Relationship Model as theoretical foundation (Hussain et al., 2018, p. 276).

The Art of Occupational Therapy: Advocating Mode

Regarding the non-cognitive factors of OT, this study indicated that there were select differences between the students' self-identified most- and least-natural therapeutic modes and final FWPE scores. As students ranked their tendency to advocate for clients as less natural than other therapeutic modes of intervention, FWPE scores tended to decrease by 1-2 points per ranking position. Advocators are rights-protectors; they empower clients seeking to affect systems-level change, access support services, and obtain community resources which support participation in occupation (Taylor, 2020). This global type of support may not lend itself to the scoring of the FWPE as the FW educator is considering the student's one-on-one relationship with clients (Hansen, 2013; Popova & Taylor, 2020). The lower fieldwork performance scores may also be influenced by limited advocacy opportunities during traditional FW experiences. As such, this mode may not be reported or measured by FW educators unless they are prompted to do so.

In relation to the didactic portion of an OT program, these findings reinforce the importance of OT faculty equipping FW students with tools for self-reflection, intentionality, and client responsivity. Strategies to balance one's natural modes and transition nimbly between modes are imperative for fostering student-client relationships. A lack of experience may limit a student's ability to switch seamlessly between modes, while a more experienced therapist will do so without being aware of it. This discrepancy, based on level of experience, may result in the therapist rating the student lower.

These findings serve as a call to action for students who are natural advocators. They are encouraged to communicate their tendency to their FW Educators and seek opportunities to collaborate on advocacy initiatives. Students must also take caution when employing therapeutic modes as advocators may tend to inherit the bias of the client and act on their behalf rather than empowering them to self-advocate (Taylor, 2020). There is a just-right time and just-right mode for each client interaction, and students must learn to respond adeptly.

The Art of Occupational Therapy: Collaborating Mode

During Fieldwork Level II(b), students who considered themselves more natural collaborators received higher final FWPE scores. This finding agrees with Taylor (2008), who emphasized that when therapists and clients establish goals and develop a shared approach to intervention, the likelihood of positive therapeutic outcomes increases (Cohn et al., 2002). The OT process, upon which the FWPE is modeled, is designed to promote collaboration between the FW Educator and student and to capture the student's ability to engage in clinical reasoning (AOTA, 2003). Fieldwork Educators may highly value collaborative modes, as a common thought process for students and practitioners to work together to interactively solve complex problems to meet the needs of their clients (Cohn et al., 2002).

For OT faculty, these implications extend beyond educational content provision to course and curriculum design. Yazdani et al. (2017) posited that in OT programs which provide substantial opportunities for group work and collaboration, students naturally used this mode when they transitioned to FW. They also found that female students showed a significantly stronger natural preference for the collaboration mode relative to other modes, which may have been influenced by cultural and/or gender factors.

For students, this study reinforces the importance of collaboration as an essential element in any healthcare profession (Taylor, 2008). Natural collaborators should take caution; however, as there may be the tendency to overestimate the client's capacity, rush the pace of therapy, or favor clients who are willing to take responsibility in assuming independence. Therapists functioning in the collaborating mode believe that clients may have more positive therapeutic outcomes if they take ownership of the therapy process; this can be challenging for students to relinquish control to the client (Taylor, 2020).

The Art of Occupational Therapy: Empathizing Mode

It was interesting to note that during FW Level II(a), students who considered themselves less likely to respond in an empathetic manner during client interaction received higher final FWPE scores. Additionally, as empathizing-revised moved in rank order toward "least natural," final FWPE scores increased by almost 2 points.

This finding may be due to a host of reasons, including the differentiation of the meaning of the word empathy. Is it the feelings and emotions or the cognitive understanding of the situation? As students participate in their FW experience, have they developed skills to maintain the necessary professional distance and therefore be perceived as an entry level therapist (Brown et al., 2010)? Fan and Taylor (2016) explained therapists focus more on empathizing with a client's emotions, whereas clients expect the therapist to show more of an instruction mode. Perhaps the medical model values pragmatism and process over therapeutic use of self, resulting in higher scores for those who consider themselves less empathetic.

The Art of Occupational Therapy: Encouraging Mode

As was the case with the empathizing-revised mode, the tendency of students to rank encouraging-revised mode as "least natural" resulted in FWPE scores that were at least one point higher per rank order. This is surprising, as it seems the opposite should be true. There may need to be consideration for the timing of administration of the questionnaire as well as the psychometric strength of the tool. In fact, Taylor et al. (2011) found the encouraging mode was most preferred and that this mode was the most natural way to begin interaction with clients and encouraged participation in activities. However, "it is possible that students may be over relying on these modes or experiencing difficulty in being able to switch out of these modes while interacting with clients" (Popova & Taylor, 2020, p. 5). The FW Educator may also expect the students to rely on these modes during treatment.

It is important to note in the literature there are discrepancies for preference with this mode. Taylor et al. (2011) found that the encouraging mode was the most preferred therapeutic style. However, Bonsaksen (2013) reported this style ranked fourth in a study describing OT students' affiliation with therapeutic modes in a variety of practice situations. They posited that the discrepancy could be due to different samples between the studies.

The Art of Occupational Therapy: Instructing Mode

During the second FW experience, students who considered themselves natural instructors had lower FWPE scores when compared to their peers who felt "least natural" with instructing. The instructing mode is perceived as a teacher-like role where the OT educates the client about issues related to their occupational participation (Bonsaksen, 2013). It is possible students and OT faculty focus less on developing the instructing mode and instead try to focus more on modes to connect with clients and develop relationships such as the emphasizing mode. This is supported by Fan and Taylor (2016) who explained that therapists focus more on empathizing with client's emotion whereas clients actually expect the therapist to show more of an instruction mode. This disconnect with client expectations of their therapist should be further explored.

The Art of Occupational Therapy: Problem-Solving Mode

As the problem-solving mode moved from "least natural" toward "most natural" in the students' rank order, final FWPE scores increased by approximately one point. This result would seem logical as clinical reasoning is a strong focus in OT education. Research indicates the problem-solving mode aligns with thinking logically and requires cognitive and analytical thinking which is a basic skill taught in OT education and advocated by professional OT agencies (Bonsaksen, 2013; Yazdani et al., 2017). Yazdani et al. (2017) supported this finding and suggested perhaps those with a problem-solving personality-based communication style are naturally drawn to the field of OT. Research has found that students prefer the problem-solving approach while on FW (Bonsaksen, 2013; Taylor et al., 2011).

Fieldwork students with limited clinical practice tend to utilize the problem-solving mode predominantly, as it equates with a "fix-it" mindset and aligns closely with the medical model (Bonsaksen, 2013, p. 499). Fieldwork Educators, with more clinical practice experience, may be more inclined to use an occupation-based approach and encourage the client's doing element in a collaborating mode in order to achieve positive therapeutic outcomes (Bonsaksen, 2013).

The Science of Occupational Therapy: Cognitive Factors

Regarding the influence of science/cognitive factors on student FW success, this study indicated there were no predictive relationships between GPA or GRE scores and final FWPE scores. While previous research has demonstrated that cognitive factors such as GPA and GRE play an important role in student retention, academic progression, and passing the certification exam (Lysaght et al., 2009), this study's findings align with these authors' statement that "no study has indicated any strong predictors of clinical performance" (p. 39).

Bathje et al. (2014) stated that "minimal information about the effectiveness of commonly used admission criteria is available regarding the criteria's ability to predict student success in the clinical requirement (FW placements) of OT graduate programs." (p. 1). However, it would be irresponsible to suggest that applicants to OT programs need not demonstrate the capacity to understand the science of OT as calculated by these standard measures; academic achievement undoubtedly contributed to the attainment of entry-level competency.

Limitations

Inherent in retrospective study design, researchers did not have direct control over the variables or testing environments. Additionally, while the FWPE tool requires FW Educators to reflect on students' abilities to collaborate, empathize, and encourage others (primarily colleagues), few FWPE competencies address student-client advocacy, instructing, or problem-solving. Thus, final scores may not reflect students' proficiency when employing these therapeutic modes. FW Educators' expectations may have differed based on knowledge of the student's previous FW experience or location, possibly affecting the reliability of responses. Nonprobability convenience sampling was utilized; as such, caution should be used when interpreting data. Cohort size (average 24 students) and data collection over three years may increase the chance of sampling error.

Implications for Occupational Therapy Education

Researchers sought to answer questions related to the predictability of final FWPE scores using ranked student responses to the Self-Assessment of Modes Questionnaire (v.II), undergraduate GPA (cumulative and science), and GRE scores (quantitative, verbal, and analytic). In lieu of the findings, occupational therapy educators may consider the following:

 Designing educational opportunities which encourage students to move beyond basic understanding of therapeutic use of self to detailed self-reflection. As a condition of professionalism in proficient entry-level practice, students may benefit from identifying their natural tendencies toward each mode prior to FWII.

- Repeating self-assessment of modes at multiple time points in the curriculum, allowing for opportunities to discuss possible ranking consistencies, changes, or the emerging capacity to alter one's mode in response to the needs of the client.
- Engaging in critical admissions discussions about standardized measures of cognitive achievement as they related to FW performance.

Conclusion

This study contributes to the body of evidence informing OT educational practice by exploring how art and science factors are related to student success in Level II Fieldwork experiences. Our results demonstrated that while students' "most" and "least natural" therapeutic modes varied, there was potential influence on final FWPE scores. GPA and GRE scores were not predictive of Fieldwork success. Future research should explore the impact of education on the therapeutic use of self within the didactic phase of the OT students' learning. Further exploration is also warranted to determine if there is an impact on professional practice when the therapeutic use of self is given more considerable attention and development throughout OT education.

Participants in this study received passing scores in FW Levels II(a) and II(b). This mark of success may call into question the importance of measuring the art or science of OT as a predictor of FW success. However, it is important to note that (1) the FWPE is predominantly grounded in scientific aptitude and may not adequately capture the student's artistic, client-centered attitude, and (2) there were significant differences among final FWPE scores within the passing range. Fieldwork Educators scored students who displayed specific modes (e.g., less-natural empathizers and more-natural collaborators and problem-solvers) as exceeding entry-level competency when compared to their peers. According to AOTA (2020), the latest FWPE revision will include a communication and professional behaviors condition, wherein the FWE will score how the student broadly "manages relationships effectively through therapeutic use of self and adjusts approach to meet the needs of clients and others" (p. 4). However, there is no mention of the six therapeutic modes, nor examples of the modes' application in practice.

Therapeutic use of self can be learned, developed, and managed (Early, 2009; Schwank et al., 2018). As such, OT faculty are responsible for increasing students' reflective capacity, self-awareness, and skillful and timely utilization of differing therapeutic modes. Taylor et al. (2009) confirmed this imperative in a survey of 1,000 U.S-based OTs wherein most participants highly valued therapeutic use of self principles but felt inadequately trained in how to employ the appropriate mode in any given situation effectively. As part of the curriculum in a study by Schwank et al. (2018), OT students participated in two workshops on self-efficacy and therapeutic use of self. The findings identified that students "would perhaps no longer be as self-conscious about their own development but may instead have been more oriented towards solving the actual tasks of practice" (p. 4). These findings affirm the profession's call to include both art and science elements in educational standards and support the development of a student's therapeutic mode repertoire when approaching fieldwork and in preparation for future practice (Solman & Clouston, 2016; Turpin, 2007).

The degree to which art and science act together to shape expectations for relationship-based client interactions during FW experiences remains unknown. However, calling attention to preferred communication modes highlights how client interactions may be shaped to fit the practitioner's natural tendencies rather than the needs of the client. In the classroom, OT faculty can use this information to develop discussions on self-reflection and individualized client-centered therapeutic intervention.

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Appendix A

Therapeutic Modes (Taylor, 2020, p 85-90)

Advocating: Providing clients with knowledge about and access to resources, awareness of laws or rights, consciousness-raising, normalization of experience, tends towards roles of facilitator or consultant.

Collaborating: Relinquishing all therapeutic power and control, facilitating the client's independence in thought and behavior, expecting clients to drive your therapeutic reasoning by following their preferences and participation choices, following the client's lead in every way (even if you do not agree with what the client is saying or doing).

Empathizing: Summary statements, mirroring affect, validating negativity, deepening questions that reflect an effort to understand (rather than an implicit therapeutic agenda), not rushing to alter or fix a client's problem, putting a significant amount of time and effort into listening and communicating in ways that increase your understanding of the client's experience, showing tremendous discretion when deciding whether to reveal your spontaneous heartfelt reactions versus putting your own reactions aside to allow full space for the client's reactions and experience.

Encouraging: Instilling hope, courage, and the will to participate explore or perform; praising accomplishments; using positive reinforcement to encourage continued behavior; using cheering, applause, high-fives, compliments, motivational words, humor (only when invited by the client), and engaging in play or other types of joyful expression.

Instructing: Directing, informing, guiding, educating, explaining, justifying, providing structure, correcting, redirecting, showing an active and directive style, assuming a teaching stance, making recommendations unapologetically; using gentle or finessed confrontation.

Problem-solving: Facilitating the client's ability to reason through obstacles; asking Socratic or agenda-driven questions to uncover faulty assumptions or analyze decisions; comparing options for action.