

# Collaborative Fieldwork Supervision: A Process Model for Program Effectiveness

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**Abstract** The collaborative fieldwork supervision model is one supervisory approach that is used to prepare future healthcare providers. Currently, the literature describing the model is limited, making it difficult to identify key factors impacting its use. Further, there is not a known measurement tool of factors influencing collaborative model use. The purpose of this study was two-fold. First, the *Collaborative Fieldwork Supervision Tool* was created and disseminated nationally to occupational therapy practitioners to collect data about their beliefs regarding the benefits and limitations of the collaborative fieldwork supervision model, their use of the model's strategies, and collaborative fieldwork supervision supports. The second goal was to create a model which was entitled *The Collaborative Fieldwork Supervision Process Model*. Within the graphic *Model*, four factors were identified which included Perceived Value of the Collaborative Fieldwork Supervision Model, Pragmatic Considerations for the Collaborative Fieldwork Supervision Model, Fieldwork Educator Considerations for the Collaborative Fieldwork Supervision Model, and Site Considerations for the Collaborative Fieldwork Supervision Model. This *Model* has potential to be used as a foundation for academic fieldwork coordinators to train both students and fieldwork educators when using the collaborative fieldwork supervision approach.

**Keywords:** occupational therapy, collaborative fieldwork supervision, survey development

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## 1. Introduction

The collaborative fieldwork supervision model was introduced to occupational therapy fieldwork learning 18 years ago as an innovative approach to ready students for the 21st-century health care arena [1]. Cohn et al. [1] described the model as a process-oriented approach to prepare future practitioners to be engaged in cooperative problem solving. The collaborative fieldwork supervision model is complementary to peer-assisted learning which uses a team-based student learning process. Peer-assisted learning is the "acquisition of knowledge and skills through a process where students of similar level work together collaboratively" ([2], p. 26). Use of a collaborative supervision model provides a context for students to cooperatively share their learning experience, resulting in sharing of differing perspectives and the enhancement of problem solving skills [2]. The fieldwork educator's role is key in guiding student exploration, questioning,

researching, interpreting and integrating their knowledge into practice [1].

Numerous articles have described the use of the collaborative fieldwork supervision model in a variety of practice contexts over the past decade [3-8]. Several studies support the value of the collaborative fieldwork supervision model to facilitate student learning as compared to other supervisory approaches [6,7,9,10]. In addition, Briffa and Porter [11] conducted a systematic review of collaborative fieldwork education and described an overall positive perception by fieldwork educators. However, a recent national survey of 817 fieldwork educators in the United States exploring preferred models of supervision and the benefits and challenges of being a fieldwork educator yielded contradictory results [12]. Evenson et al. [12] found that only 15% of occupational therapists (OTs) and 2% of occupational therapy assistants (OTAs) used the collaborative supervision model. Study respondents identified challenges to collaborative model use as workload, physical space, concerns with student capabilities, cost of staff time, and potential difficulties

with clients. These varied reports illustrate the need to identify and measure the factors affecting use of the collaborative fieldwork supervision model.

## 2. Background of the Problem

There are benefits and challenges to supervising fieldwork students regardless of the supervision approach used. Thomas et al. [13] identified benefits for supervising students ranging from employment recruitment, developing clinician's clinical reasoning skills, to staff organization and time management skills. Common challenges identified were limited physical space, workload pressures, potential difficulties with clients, and concern for student capability. Recognized barriers were staff turnover, limited resources, workload pressures, and settings deemed inappropriate for student placements.

Krupnick, Brown and Stutz-Tanenbaum [14] described three components of a successful fieldwork experience that apply to all fieldwork supervision models: the fieldwork educator, student, and fieldwork environment. Sensitive balance was found to be inherent in the three components which dynamically shift to influence the quality of the learning experience for the student and supervisory process for the fieldwork educator. For example, the fieldwork environment considers the client conditions, therapy approaches and setting characteristics as key factors in student learning. The authors found that the fieldwork educator's attitude, teaching strategies and professional attributes interacted with the student's attitude, learning behaviors, and the learning environment to influence the quality of the fieldwork learning process.

Concerns identified specifically for use of the collaborative model include having adequate time for supervision, managing student interpersonal conflicts, and difficulty making projects meaningful [10]. Additionally, challenges have been identified for fieldwork educators to provide meaningful individual student feedback when using a group supervision model [2]. Reported benefits of the collaborative fieldwork supervision model include greater supervisor satisfaction with balanced workload, improved peer learning, and shared problem solving [15]. The advantages identified for use of the peer assisted learning model for students include increased confidence, autonomy, learning, self-reflection and peer support [16]. Those who attempt to use the collaborative fieldwork supervision model with a traditional apprenticeship approach, one fieldwork educator to one student, rather than adopting true collaborative learning strategies have expressed more concerns about the quality of the students' learning experience [10,16].

Fieldwork educator preparation and support may play a key role in successful collaborative model use. Briffa and Porter [11] suggested that fieldwork educators' ability to provide appropriate supervisory support and teaching approaches influence student perceptions about the quality of their learning experiences. For example, the ability of the fieldwork educator to ask complex questions and to skillfully direct peer interactions in a manner that leads to increased confidence enhances student autonomy, a key feature of the collaborative fieldwork supervision model. Alpine et al. [9] found fieldwork educators using the

collaborative model asked for additional training to support student professional relationships and to give effective peer feedback. Once these strategies were taught, fieldwork educators experienced decreased student demands for teaching and supervisory time. Successful strategies included being prepared to support a peer-learning environment through shared activities and clinical tasks. The authors reported that students' knowledge of each other's learning styles at the onset resulted in stronger support for each other's learning. Price and Whiteside [15] also noted the value of creating an environment with professional colleague support for the peer-assisted model, including the availability of important resources and coverage during staff annual leave. Hanson and Deluliis [17] suggested that universities hold a level of responsibility to prepare students for participation in the collaborative fieldwork supervision model through selection of appropriate students, education on collaborative learning principles and reflection on model applications to learning goals prior to placement.

Sevenhuysen et al.'s [2] systematic review of peer-assisted learning noted that most articles failed to describe peer-assisted learning or evaluate whether collaboration actually occurred or had been facilitated between students. In these studies, an objective measure for determining the occurrence of peer-assisted learning was lacking. In addition, the majority of the studies analyzed were qualitative, lacking information about outcomes, including fieldwork educator workload, student performance, and productivity. A lack of clarity in describing the collaborative learning model may make it difficult to identify key factors impacting model use. Sevenhuysen et al. [2] concluded there were no formal training supports to guide fieldwork educators in fully utilizing this learning approach. Imprecision in describing the model appears to negatively impact educational resource development.

Currently the authors of this paper are not aware of any measurement tool of factors influencing collaborative model use. Development of a measurement tool will help the fieldwork education community, specifically the academic fieldwork coordinator, to identify factors that impede model use and highlight model benefits. Systematic collection of data will enable development of resources to address model obstacles or make refinements to the learning model to facilitate use. The purpose of this study was to develop a tool to identify and measure key factors essential to use of the collaborative fieldwork supervision model.

## 3. Methods

### 3.1. Survey Creation

Approval was received from all participating university's institutional review board offices to conduct this research study. The development of the survey was informed by both the lived-experiences of the authors who have been academic fieldwork coordinators for a combined total of 80 years and a comprehensive review of the literature. The authors had experience developing collaborative fieldwork supervision sites, including

educating and mentoring fieldwork educators as they navigated the unique aspects of supervision. The survey item development began with knowledge inherent with these experiences, which augmented the review of collaborative fieldwork supervision literature.

Item selection grew from relevant topics in the literature to inform the item development and organization for the collaborative fieldwork supervision survey, capturing the range of benefits, challenges, and supports influencing the model. The survey was implemented using Qualtrics online survey software and was intended for OTs and OTAs Level II fieldwork educators to complete. Level II fieldwork requires a total of 24 weeks (OT) and 16 weeks (OTA) of full-time clinical experience where the student needs to demonstrate entry-level skills in a minimum of two settings and a maximum of four settings [18]. The original survey was composed of 38 questions and required approximately 15 minutes to complete. The following four categories were used to structure the survey questions: demographics, beliefs about the benefits and limitations of the collaborative fieldwork supervision model, ease of use of the collaborative fieldwork supervision model strategies, and collaborative fieldwork supervision model supports.

### 3.2. Pilot Survey

A pilot survey was disseminated to fieldwork educators who were familiar with the collaborative fieldwork supervision model. Seven OTs completed the survey and responded with feedback. The respondents' experience ranged from 4-20 years supervising OT and OTA students. Five of the pilot participants had provided collaborative fieldwork supervision. Based on feedback the survey was modified to reflect recommendations, specifically to separate items for participants who had used the collaborative fieldwork supervision model from those who did not, in order to streamline items for each group. The survey was separated into smaller sections with fewer items to answer in each section to make it less overwhelming and easier to recall the stimulus question.

### 3.3. Survey Sample

Data collection came from fieldwork educators who supervised a Level II fieldwork student within the last five years and used skip logic to ask questions appropriate to the respondents' experience with collaborative supervision. The same four categories utilized in the pilot survey were kept for structuring the 35 questions on the final survey. A mixed array of questions was used on the survey, such as Likert scale, open-ended questions, and multiple choice. Respondent fieldwork educators who had never used the collaborative fieldwork supervision model received 25 questions, and respondent fieldwork educators who had used the collaborative fieldwork supervision model received 30 questions. In April of 2018, an email was sent to the American Occupational Therapy Association Academic Fieldwork Coordinator Listserv requesting participation in this study. At that time there were 22 doctorate programs, 166 Masters programs with 10 additional sites, and 218 Associate programs with 2

additional sites totaling 418 accredited OT and OTA program sites. The listserv consists of the academic fieldwork coordinators from those sites. The email requested that the academic fieldwork coordinators distribute the provided survey link to their fieldwork educators who supervise Level II fieldwork students. The survey was open for four months from April 2018 to August 2018.

### 3.4. Data Analysis

Data analysis consisted of principal component factor analysis with varimax rotation on the 23 Likert scale questions using 382 respondents who have experience with the collaborative fieldwork model. This weights each question so groups or factors can be made of them. Eigenvalues were used to determine the number of factors in a model. Two models with eigenvalues near 1.0 or higher were considered. To determine which questions should be in each factor, only questions with factor loadings greater than 0.4 or less than -0.4 were used. Individual measures based on the factors were created using the average of the respondents' scores (1 to 5) for each set of questions. Questions with negative factor loadings were reverse coded in the measure calculations. The measures were evaluated using their mean, standard deviation, and the correlations of the questions within each measure. Cronbach's alpha was used to test the reliability of each measure.

## 4. Results

Of the 391 respondents, 382 rated the 23 statements regarding collaboration. 181 (47%) were from the Census region Midwest, 89 (23%) were from the Northeast, 78 (20%) were from the West, and 33 (9%) were from the South. Nearly all (95%) were occupational therapists and 248 (65%) had a post-bachelors degree. Most (90%) were employed full time, where the average years of experience was 15.7 (S.D. 10.7, range "just starting" to 45 years), and the average years of experience with fieldwork were 11.6 (S.D. 9.7, range "just starting" to 39 years). About two thirds supervised one or fewer students per year, 21% about 2 per year, and only 12% more than two students per year. Three in ten respondents have used a collaborative fieldwork supervision model; 17% felt slightly familiar with it, 19% somewhat familiar, 15% moderately familiar, and 13% extremely familiar with collaborative fieldwork.

A principal component factor analysis with varimax rotation was used to determine the unique concepts measured by the 23 statements. The first six Eigenvalues were 6.05, 2.57, 1.27, 1.08, 0.99, and 0.94. The three-factor model (Eigenvalue of 1.27) was determined not to provide sufficient distinction between measures. The six-factor model (Eigenvalue of 0.94) produced three factors consisting of only two statements and did not define measures as fully as necessary. The factor analysis thus led to two models, one with four-factors and one with five-factors. Each model comprised different considerations that were categorized into four areas,

except for one additional area in the five-factor model. The four and five-factor model categories are: Perceived Value of the Collaborative Fieldwork Supervision Model, Pragmatic Considerations for the Collaborative Fieldwork Supervision Model, Fieldwork Educator Considerations for the Collaborative Fieldwork Supervision Model, Site Considerations for the Collaborative Fieldwork Supervision Model, and the addition of the Client Considerations when using the Collaborative Fieldwork Supervision Model for the five-factor model.

The statements grouped into the four and five-factor models are presented in Table 1. The first factor was labeled Perceived Value of the Collaborative Fieldwork

Supervision Model (referred to as Perceived Value) and consisted of eight to ten statements regarding the benefits of model use. For both the four and five-factor models there were eight statements that loaded highly (over .500). These were positive statements regarding efficient orientation, student group projects, learning, and case management, teaching/learning opportunities, recruitment, less pressure, and more time (questions 16\_1, 16\_3, 16\_4, 17\_4, 18\_3, 18\_4, 19\_2, and 20\_2). The four-factor model added two statements regarding multiple students and competence (17\_2 and 19\_1); these had negative loadings indicating a need for reverse coding. Both statements loaded positively on other factors.

**Table 1. Rotated factor loadings for four and five-factor models based on 23 collaboration questions.**

		Loadings	
		4 Factors	5 Factors
<b>Perceived Value of the Collaborative Fieldwork Supervision Model</b>			
16_1	Orientation is more efficient	.621	.560
16_3	Groups of students can conduct projects	.660	.620
16_4	Opens up collaborative teaching/learning opportunities for the team	.778	.780
17_4	Recruitment benefits fieldwork site increases	.595	.655
18_3	There is less pressure for the fieldwork educator to be an expert	.626	.682
18_4	The fieldwork educator has more time to work on other projects	.590	.651
19_2	Students can get adequate client contact and learn to manage time while sharing a caseload	.648	.545
20_2	Collaborative model is better for student learning	.745	.675
17_2	Overwhelming for clients to work with more than one student	-.448	
19_1	Entry level competence more difficult for fieldwork educator to determine	-.406	
<b>Pragmatic Considerations for the Collaborative Fieldwork Supervision Model</b>			
17_1	There are more expendable demands on the site	.552	.418
18_1	Extra time people preparation	.727	.645
18_2	Time commitments increase	.710	.602
20_3	Students need more advance preparation	.716	.746
20_4	Academic fieldwork coordinator needs to support throughout	.754	.786
19_3	Student interpersonal conflict is more likely to occur	.417	
20_5	Academic fieldwork coordinator often do not provide needed resources	.509	
<b>Fieldwork Educator Considerations for the Collaborative Fieldwork Supervision Model</b>			
18_4	Allows fieldwork educators more time to work on projects	.491	.404
19_1	Entry level competence more difficult for fieldwork educator to determine	.510	.411
19_4	Decreased individual time for fieldwork educator to spend with each student	.531	.670
20_1	Academic programs develop collaborative fieldworks due to inadequate number of fieldwork educators for fieldwork placement demands	.617	.550
<b>Site Considerations for the Collaborative Fieldwork Supervision Model</b>			
18_2	Time commitments increase		.458
16_2	Physical space has more demands	.603	.754
17_1	More expendable demands on the site	.409	.527
17_2	Overwhelming for clients to work with more than one student	.407	
17_3	There must be sufficient clients for students to independently manage a full caseload	.652	
<b>Client Considerations when Using the Collaborative Fieldwork Supervision Model</b>			
17_2	Overwhelming for clients to work with more than one student	N/A	.601
17_3	There must be sufficient clients for students to independently manage a full caseload	N/A	.764
19_1	Entry level competence more difficult for fieldwork educator to determine	N/A	.481
19_2	Students can get adequate client contact and learn to manage time while sharing a caseload	N/A	-.473

Table 2. Description of measures created by factor analysis

Measure	4 Factor Model				5 Factor Model			
	N Items	Chronbach Alpha	Mean	S.D.	N Items	Chronbach Alpha	Mean	S.D.
<b>Perceived Value</b> of the Collaborative Fieldwork Supervision Model	10	.845	2.932	0.619	8	.829	3.017	0.634
<b>Pragmatic Considerations</b> for the Collaborative Fieldwork Supervision Model	7	.804	3.556	0.631	5	.798	3.668	0.701
<b>Fieldwork Educator Considerations</b> for the Collaborative Fieldwork Supervision Model	4	.400	3.196	0.565	4	.400	3.196	0.565
<b>Site Considerations</b> for the Collaborative Fieldwork Supervision Model	4	.640	3.805	0.691	3	.665	3.760	0.754
<b>Client Considerations</b> when Using the Collaborative Fieldwork Supervision Model	N/A	N/A	N/A	N/A	4	.739	3.496	0.755

Footnote: Rating of 26 items by 382 people was used in the factor analysis. Cronbach's Alpha standardized for the number of items is shown.

The second factor (Table 1) was labeled Pragmatic Considerations for the Collaborative Fieldwork Supervision Model (Pragmatic Considerations) and consisted of five negatively worded core statements regarding site demands, time preparation and commitments, academic fieldwork coordinator support, and student advance preparation (17\_1, 18\_1, 18\_2, 20\_3, and 20\_4). These were seen as potential difficulties of procedural actions when using the collaborative fieldwork supervision model. The four-factor model also had two statements regarding interpersonal conflicts and academic fieldwork coordinator resources (19\_3 and 20\_5). These statements were more indirect in suggesting the fieldwork educator will need to work harder implementing the collaborative fieldwork supervision model. They were not loaded into any factor of the five-factor model.

The third factor (Table 1) was labeled Fieldwork Educator Considerations for the Collaborative Fieldwork Supervision Model (Fieldwork Educator Considerations). This consisted of four negatively worded statements for both factor models regarding time for projects, individual time for each student, determining entry-level competence, and number of fieldwork placement demands (18\_4, 19\_1, 19\_4, and 20\_1). All were related to potential difficulties of fieldwork educators when using the collaborative fieldwork supervision model.

The fourth and fifth factors (Table 1) were based on concerns with the site and the client. In the four-factor model, these concepts were one factor, but in the five-factor model, the concepts regarding clients were separated out. The fourth factor labeled Site Considerations for the Collaborative Fieldwork Supervision Model (Site Considerations) consisted of two negatively worded core statements, (16\_2 and 17\_1), regarding workspace and site demands. The four-factor model added two statements (17\_2 and 17\_3) regarding demands on clients and the need for sufficient clients. In the five-factor model, Site Considerations did not include the two statements on clients but added a statement on time commitments (18\_2). The fifth factor was labeled Client Considerations when Using the Collaborative Fieldwork Supervision Model (Client Considerations). For the five-factor model, the fifth factor consisted of four negatively worded statements, two about clients (17\_2 and 17\_3) as well as the addition of two statements regarding competence and student-client contact (19\_1 and 19\_2).

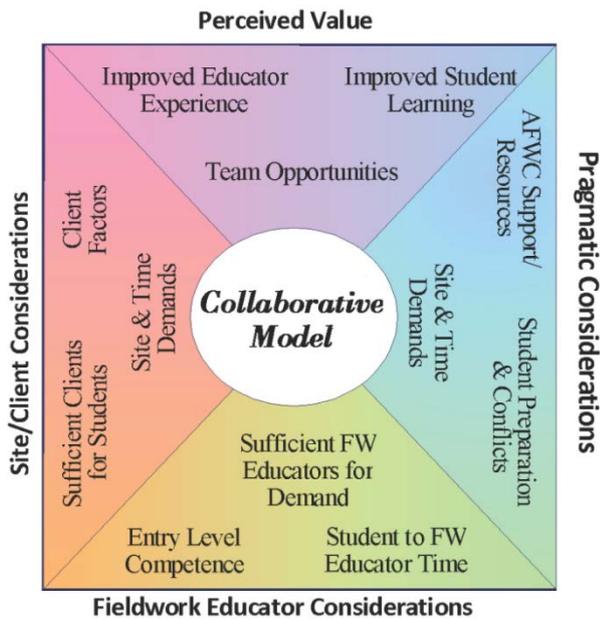
After the statements were grouped into four or five factors, measures were created by taking the average score

of a respondent for all the statements within a factor. The statements were not weighted; each statement was worth a score of one to five based on the respondent's answer. Three statements (17\_2, 19\_1, and 19\_2) had negative loadings and needed reverse coding before they were averaged into the measure. Six statements (17\_1, 17\_2, 18\_2, 18\_4, 19\_1 and 19\_2) had high loadings on multiple factors and were used in the calculations of multiple measures. Two statements (19\_3 and 20\_5) were only used in the four-factor solution and were not part of the five-factor solution.

The concept measures based on average scores within each factor are described in Table 2. The average scores (2.93 to 3.76) and their standard deviations (0.56 to 0.75) were relatively stable. The correlations between the individual statements within each measure were significant ( $p < .01$ ) for all but two sets of statements (individual correlations not shown). The absolute value of the correlations ranged from .020 to .752. Cronbach's Alpha was calculated for each measure. The first two measures, Perceived Value and Pragmatic Considerations had values greater than .7, as well as the fifth measure Client Considerations. Fieldwork Educator Considerations had an Alpha of only .400, and the Alpha for both versions of Site Considerations was also lower (.640 and .665).

## 5. Discussion

The data yielded objective measures of factors impacting collaborative fieldwork supervision model use. The developed survey identified key factors to begin data collection on collaborative fieldwork supervision and peer-assisted learning approaches with broad-reaching implications for clinical learning in occupational therapy education. Each measure consistently showed a precise and reliable strength with stable measures and significant correlations. This led to developing a theoretical foundation titled *The Collaborative Fieldwork Supervision Process Model* (Figure 1). The proposed model organizes the factors to be considered when using the collaborative fieldwork supervision model. Based on this analysis, the researchers developed an initial version of the *Collaborative Fieldwork Supervision Tool* to measure the concepts identified in *The Collaborative Fieldwork Supervision Process Model*.



Footnote: Abbreviations FW = Fieldwork; AFWC = Academic Fieldwork Coordinator

**Figure 1.** The Collaborative Fieldwork Supervision Process Model

In reviewing the *Model's* (Figure 1) factors more closely, the Perceived Value describes how the value of the collaborative fieldwork supervision approach is viewed by the fieldwork educator. The ten items on the four-factor solution represent both positive and negative perceptions, in line with the literature review findings. The items represented in this factor demonstrated consistency in strength (Cronbach's  $\alpha > = 0.8$ ; Table 2) suggesting that the values measured in this factor are inclusive of likely factors to be considered in measuring fieldwork educator perceptions. The range of items considered in the Perceived Value illustrates how multiple aspects influence the fieldwork educator's perception of the effectiveness of the collaborative fieldwork supervision model and the need to address these perceptions when preparing fieldwork educators for collaborative fieldwork supervision model use. Often the academic fieldwork coordinator prepares the site with consideration to detailed steps for orientation, student learning activities and student to client interventions. Calling attention to this factor will enable upfront discussion of both positive and negative perceptions of model use, enabling informed decision-making about model use.

Identification of practical considerations for collaborative fieldwork supervision model use, represented in the Pragmatic Considerations factor (Cronbach's  $\alpha > = 0.8$ ; Table 2) in the *Model* (Figure 1), will assist fieldwork educators to realistically identify unique preparation and resource needs in advance of student placement. Limited recognitions and attention to practical considerations in the literature may lead to insufficient preparation. Attention to Pragmatic Considerations in advance of student placement has the potential for increasing student ownership for their learning, and their perceptions of the quality of their learning. When Pragmatic Considerations are addressed, the fieldwork educator may experience fewer student demands for supervisory and teaching time.

The Fieldwork Educator Considerations factor (Cronbach's  $\alpha = 0.4$ ; Table 2) represented in the *Model* (Figure 1) describes fieldwork educator's perceptions of the potential ambivalence for weighing the positives (e.g., time for backlogged projects) with the negatives (e.g., determining entry-level competence). However, because there were only four questions that loaded on this factor, fieldwork educator needs were difficult to measure clearly. Thomas et al. [13] identified other barriers and supports that could be explored to increase the reliability of this measure. Preliminary results suggest that fieldwork educators need to anticipate the impact of taking multiple students on individual supervisory time, evaluating student competence, and student projects to accommodate a collaborative learning experience. Knowing there needs to be modifications to an existing fieldwork program assists the fieldwork educator in planning collaborative learning experiences supporting student success.

The final quadrant of the *Model* (Figure 1), Site and Client Considerations bring attention to the various demands placed upon the fieldwork site when hosting multiple students. The Site Considerations factor (Cronbach's  $\alpha = 0.6$ ) identifies an increased time commitment, demands on physical space and expendables (e.g., materials, equipment). Site and client considerations are given minimal attention in the literature [10,15,17]. However, Evenson et al. [12] suggest site and client considerations might impact fieldwork educators' willingness to work with multiple fieldwork students. Inclusion of these considerations in an assessment tool will help the fieldwork educator to anticipate the demands and work with the administration to plan for their impact in order to increase efficiency. For example, students may be able to share workspace and a computer. Jointly, fieldwork educators and students might use peer-feedback and evaluations prior to the fieldwork educator's review to make efficient use of time.

It is not surprising that adequacy of client contact and a measure of entry-level competence are factored together under Client Considerations (Cronbach's  $\alpha = 0.7$ ), as this has been a long-standing variable of concern when addressing student competency. Fieldwork educators describe an interplay between the level of depth students gain in learning new skills with fewer clients, and the level of stress experienced by fieldwork educators, clients, and students [9]. In occupational therapy fieldwork education, attention has traditionally been given to student performance with the number of clients on a caseload, possibly due to the influence of the productivity-based business model of health care (e.g., Medicare, insurance). The occupational therapy profession has not yet identified what is an appropriate caseload for students, how many clients are warranted to determine competency, or whether a "full" caseload is really required. Questions to consider include: Is the ability for the student to demonstrate effectiveness while managing a full caseload of prime importance in determining entry-level competency? What role does the quality of student services play in determining student readiness? What are the "essential" competencies students must display to be ready for practice? Is it important that entry-level competence is established by students carrying similar caseloads as their

supervisors? How does the in-depth quality of service provision with smaller caseloads impact clients and student learning?

## 6. Study Strengths & Limitations

This survey reached a large geographic area of the United States and a wide range of experience and education levels, making a strong sample. Limitations include potentially biased results by respondents who had no use or familiarity of the collaboration model (though including them likely captured pre-conceived ideas). The reliability analysis however, indicated that certain factors, such as Fieldwork Educator Considerations (Cronbach's alpha = 0.4) and Site Considerations (both Cronbach's alphas < 0.7), would benefit from more items measuring these concepts. Future research using new samples could also incorporate a confirmatory factor analysis to measure not only the strength of this model but any covariance between the measures.

The data analysis reflects fieldwork educators who have experience with supervising occupational therapy students in the collaborative fieldwork model. Though this helped to clarify the development of the model, it limited the generalizability. Additional research should include fieldwork educators who have not used this model so that we can understand why they have been reluctant or unable to use this model. Validity should be tested on additional populations. This tool could be expanded to include student and client perceptions of the collaborative fieldwork supervision model. Other allied health professions should also be included in future studies to broaden the scope of generalizability.

## 7. Implications, Applications, and Recommendations

This study brings forward a clearer understanding of the complexity of variables to be considered with the use of a collaborative fieldwork supervision model. When done well, students and fieldwork educators appreciate the value of cooperative learning and the increased availability of precious supervisory time for other projects. When there is inadequate planning, client resistance, insufficient physical resources, and student conflict, the outcomes are disappointing. This study gives a new perspective as to why the collaborative fieldwork supervision model is not as commonly used as the traditional apprenticeship approach.

Fieldwork education supervision is a highly skilled technical field analogous to specialization in practice (e.g., hand therapy, neonatal intensive care unit, burn rehab), but there is limited acknowledgment of the skills required for clinical teaching. Although a variety of clinical instructor training programs exist (e.g., American Occupational Therapy Association Fieldwork Educator Certificate Program, American Physical Therapy Association Clinical Instructor Certificate, and Site Coordinator of Clinical Education), the focus of those programs is on foundational supervisory skills rather than the advanced skills needed to facilitate the collaborative fieldwork supervision approach [19].

*The Collaborative Fieldwork Supervision Process Model* (Figure 1) is a graphic tool setting a foundation for training students and fieldwork educators. It is useful for analyzing implementation and modifying how collaborative fieldwork is structured. The need for adequate training is particularly acute due to underlying pressures between academic programs and fieldwork educators to recruit adequate numbers of sites and supervisors for student placements. A fieldwork educator may feel compelled to participate in collaborative fieldwork supervision without adequate consideration as to how to modify their teaching approach.

The survey tool and graphic model could be used in multiple ways to support fieldwork education teams in use of the collaborative fieldwork supervision approach. It has potential for use as a preparatory tool by the academic fieldwork coordinator to assess the preparation of the site, the students, the fieldwork educators, and the health care team. Or, it could be used as a checklist of steps that need to be taken in anticipation of using the collaborative fieldwork supervision model or as a tool to prepare students to participate more effectively in the supervision process. During the implementation of collaborative fieldwork supervision, the *Model* (Figure 1) might be used as a tool to troubleshoot problems and identify gaps in the fieldwork site's program. Finally, the *Model* could be used to debrief following the fieldwork experience, allowing fieldwork educators, students and team members to evaluate the recent learning experience and to improve future student placements.

The authors recommend future research regarding *The Collaborative Fieldwork Supervision Tool* to identify additional relevant items to support the factors of Fieldwork Educator Considerations and Site and Client Considerations. For example, attitudes toward sharing supervision between two or more fieldwork educators and shifting supervisory approaches might be explored in Fieldwork Educator Considerations. Additional items for Site and Client Considerations might include administrative and staff support as well as client preparation for a collaborative student approach. Consideration of the boundaries for determining entry-level competence within a given practice setting might also be explored within the Site and Client Considerations factor.

Qualitative research might be conducted to validate the concepts of the proposed model from the perspective of the lived experience of fieldwork educators using the collaborative fieldwork supervision model. Comparison studies might verify the impact of the *Model* on student and fieldwork educator satisfaction with the educational process or comparison of students who complete a traditional apprenticeship versus a collaborative fieldwork placement.

## 8. Conclusion

In conclusion, a lack of clarity in describing the collaborative fieldwork supervision model has made it difficult to identify key factors impacting model use. As a result, no formal training supports have been available to guide fieldwork educators in fully utilizing this learning approach. Imprecision in describing the model has negatively impacted educational resource development.

The authors developed *The Collaborative Fieldwork Supervision Tool* to identify factors impacting collaborative fieldwork supervision model use, building a theoretical foundation for the development of *The Collaborative Fieldwork Process Model*. The developed *Model* identifies factors to be considered for implementation of a collaborative supervision approach and provides a foundation for preparation and support of key stakeholders for model use including students, fieldwork educators, fieldwork site coordinators and academic fieldwork coordinators. Recommendations for model use and further model development were explored. *The Collaborative Fieldwork Supervision Tool* is expected to provide the support needed for the collaborative supervision approach.

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## Statement of Competing Interests

The authors have no competing interests.

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