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Facilitating collaborative supervision in a university speech-language pathology clinic

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FACILITATING COLLABORATIVE SUPERVISION IN A
UNIVERSITY SPEECH-LANGUAGE PATHOLOGY CLINIC

By

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FACILITATING COLLABORATIVE SUPERVISION IN A
UNIVERSITY SPEECH-LANGUAGE PATHOLOGY CLINIC

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By

Benjamin K. Reece

DEDICATION

This dissertation is dedicated to my student clinicians; past, present and future. May your clinic

experiences be as engaging, enlightening and invigorating as mine were!

I also dedicate this to my parents, both life-long learners and teachers who have imparted on us

the value of education, learning and hard work.

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This dissertation is a product of the mentorship that I have received from so many individuals since my days as a master's student in the speech-language pathology department at the University of the Pacific. First, I would like to thank my clinical supervisors, you guided and mentored me into the field I love, demonstrating excellence in practice, patient/student care and clinical supervision. It is because of my incredible clinical experiences during graduate school that I sought to become a supervisor and ultimately returned to Pacific as the Director of Clinical Education. And it is because of the excellent supervision that I received that I decided to study this topic. I hope more research in this area will result in all student clinicians experiencing the same level of supervision that I was fortunate to receive.

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FACILITATING COLLABORATIVE SUPERVISION IN A
UNIVERSITY SPEECH-LANGUAGE PATHOLOGY CLINIC

Abstract

By Benjamin K. Reece

University of the Pacific
2020

Clinical education is a key element of graduate school training in the field of speech-language pathology. Graduate students are required to obtain 375 supervised clinical practice hours in order to earn their provisional license and begin their career. Supervision of clinical hours is most often provided by experienced speech-language pathologists with minimal, if any, training in effective supervision practices.

Within the field of speech-language pathology, Anderson's Continuum of Supervision (Anderson, 1988) is the most widely accepted model and provides a structure and sequence for supervisors to follow in order to facilitate the clinical development of their student clinician. Anderson's model suggests that the collaborative supervision style should be used to transition student clinicians from directive supervision (where they are reliant on the supervisor for direction) to self-supervision, which represents independence. Despite this, and because of a lack of evidenced-based methods and a lack of training opportunities, many supervisors have difficulty implementing the collaborative supervision style. This study examines the effectiveness of an external tool, the Clinician's Hierarchy for Advancing Treatment (CHAT) (Duthie, 2008), in helping supervisors to implement the collaborative supervision style.

This is an exploratory quantitative, quasi-experimental non-equivalent groups study. Students and supervisors were surveyed about their perceptions of the supervisory process

following their participation in a semester-long clinical practicum in a university speech-language pathology clinic. Prior to working with a second cohort of students, the supervisor group was trained on the CHAT. This method features a chart which objectively defines levels of client performance and corresponding levels of clinical supports needed for the client to advance in treatment. Supervisors were trained to use this tool to guide student clinicians in the clinical decision-making processes. Implementation of the CHAT occurred across the following semester in the same university clinic with a new group of student clinicians. Supervisors and students were again surveyed at the end of the semester on their experience of the supervisory process to determine if the perception of collaborative supervision had increased with the implementation of the CHAT.

The Supervisory Relationship Measure (Pearce et al., 2013) and the Supervisory Relationship Questionnaire (Palomo et al., 2010) were used to survey the student clinicians and supervisors, respectively. Independent-samples, one-tailed *t*-tests were conducted to determine if there was a significant increase in the perception of collaborative supervision. These analyses were conducted using the Safe Base Subscale score from the surveys, of which items focus on the interactions and relationship between the supervisor and the student clinician as they relate to collaboration. Analysis resulted in insufficient evidence to suggest an increase in the perception of collaborative supervision from the first semester (without CHAT) to the second semester when CHAT was implemented. Additional analyses were also conducted on items that were considered particularly salient to collaborative supervision. Results of item-level analyses were marginally significant for two items from the supervisor surveys, both of which queried the supervisor's perception of the student's level of openness and honesty in supervisory conferences.

These findings suggest that using an external tool such as the CHAT, may result in student clinicians being more open and honest about their experience of the clinical process in the supervisory conference. It is argued that the objectivity of the external tool prompts more objective conversation between the supervisor and student clinician. The increase in objective conversation, in turn, decreases the judgment and evaluation that students often associate with supervision, thereby creating a safer environment in which to voice their honest reflections.

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LIST OF ABREVIATIONS

ASHA   American Speech-Language Hearing Association

CHAT   Clinician's Hierarchy for Advancing Treatment

CSD   Communication Sciences and Disorders

Para   Paraprofessional

SLP   Speech-language Pathology/Speech-language pathologist

SLPA   Speech-language pathology assistant

CHAPTER 1: INTRODUCTION

As a supervisor in the university clinic for a speech-language pathology graduate program, I have regularly been frustrated by the nature of my supervisory conferences with students. Often coinciding with midterm exams, students seem to equate midterm conferences with evaluation. In our clinic, the practice of reviewing the clinic grading matrix and issuing a midterm clinic grade during mid-term conferences has certainly perpetuated the evaluative nature of the conferences, despite supervisor efforts towards deeper discussions about the services delivered by the student and the student's development of clinical skills. Teacher educator Paul Arcario coined the term 'Canonical Conversations' for conferences that followed a predictable pattern of evaluative statements followed by justifications and prescriptive direction (Gebhard & Oprandy, 1999). It is precisely this pattern that many of my previous supervisory conferences would take.

Much research has been done in the fields of education and speech-language pathology on clinical supervision (Anderson, 1988; ASHA, 2008; Brasseur, 1989; McCrea & Brasseur, 2003). But not much has been written on specific strategies for facilitating collaborative supervision to avoid the lure of evaluative laden conferences. Speech-language pathologist Jean Anderson (1988) suggested a framework for collaborative supervisory conferences based on research in teacher education. McCrea and Brasseur (2003) later expanded on Anderson's work. Since then, very little has been presented in the literature regarding specific strategies for collaborative supervision (Ward, 2007). The Clinician Directed Hierarchy (CDH) (Duthie, 2008), later revised to the Clinical Hierarchy for the Advancement of Treatment (CHAT), is a tool that was originally designed to aid student clinicians in determining appropriate levels of

support for individual clients. The CHAT is a hierarchical matrix that compares clinician prompting, or levels of support, with client performance.   It has been implemented in two university clinics (Duthie & Robbins, 2013) and shown to be an effective way of addressing clinical competencies. It is predicted that this matrix also leads to more collaborative supervisory conferences by providing an objective way for supervisor-supervisee dyads to examine the levels of performance by the client and support required to advance in therapy.

Background

Clinical supervision practices in the field of speech-language pathology are largely based on the work of Jean Anderson. In 1988, Anderson published the *Continuum of Supervision,* a model to guide supervision in the field of speech-language pathology. The model is based on a three-stage continuum in which supervision styles change as the student develops. The three stages are Evaluative/Feedback, Transitional, and Self-Supervision. In the Evaluative/Feedback stage, the supervisor provides direct supervision, giving explicit direction to the supervisee. The goal of the Evaluation/Feedback stage is to move the student clinician through it as quickly as possible and into the Transitional stage. The Transitional stage is a dynamic stage in which the supervision becomes collaborative and gradually more responsibility and power are transitioned to the supervisee. In the final stage, Self-Supervision, the supervisees take sole responsibility of their own development and evaluation. They may consult with their supervisor, but interactions are now initiated by the supervisee (Anderson, 1988; Brasseur, 1989).

As a clinical instructor in a university-based speech-language pathology clinic, I am most interested in the Transition stage. I believe this is the most critical stage for the student clinicians under my supervision. These student clinicians are enrolled in Advanced Clinic, meaning that they have already completed at least one semester of clinical practicum. Therefore, I assume

they have progressed through the Evaluation/Feedback stage and are ready to embark on the Transition stage where they will begin to take more responsibility for planning, reflecting and analyzing their own clinical practices.

One of the primary tools of collaborative supervision called for in the Transitional stage is the supervisory conference. This is a conference between the supervisor and supervisee in which the dyad discusses the clinical process between the supervisee and the client. In university clinic settings, this conference typically occurs formally once or twice per semester. The goal of the supervisory conference is to advance the clinical skills of the supervisee which results in increased quality of therapy provided to the client. Supervisory conferences have been shown to be effective in facilitating clinical behaviors of supervisees (Gillam et al., 1990), increasing student clinician independence through self-analysis (Larson, 2007), and allowing for objective feedback from the supervisor (Ellis, 2010). Anderson (1988) outlined a five-step framework for the supervisory process to facilitate effective conferences: understanding the supervisory process, planning, observing, analyzing, and integrating. This process was adapted from models suggested in the field of education first by Cogan (1973) and subsequently by Goldhammer, Anderson and Krajewski (1980). All three models stressed the importance of a deliberate supervisory process centered on a supervisory conference and suggested collaborative planning for observation and conferencing between the supervisor and supervisee.

Planned observation of the therapeutic process is an important component in clinical conferencing. Documented as early as the 1960s in the field of education, observations should yield objective information to be later analyzed collaboratively between the supervisor and supervisee (Goldhammer, 1969). The purpose of the observations should be a collaborative decision, meaning that it is best determined jointly between the supervisor and supervisee. Data

to be gathered should be objective and descriptive, and as much as possible, free from evaluation (Brasseur, 1989; Gebhard & Oprandy, 1999).

Unfortunately, many studies have revealed that, in reality, supervisory conferences between speech-language pathology supervisors and their supervisees are far from collaborative with supervisors doing most of the structuring and talking (Brasseur, 1989). An unpublished doctoral study by Paul Joseph Arcario found a similar pattern in student teacher-supervisor conferences, where not only were the conferences dominated by the supervisor, but much of the discussion was evaluative in nature (Gebhard and Oprandy, 1999). A common underlying theme between these two studies is the lack of collaboration between the supervisor and the supervisee which seems to lead to evaluative discussion and prescribed directions by the supervisor. This has been confirmed in other studies, which show that supervisors often dominate conversation during conferences, initiating the discussion and determining the topics (Waite, 1993) leading to evaluation and prescriptive directions (Gebhard & Oprandy, 1999).

Problem Statement

The American Speech-Language Hearing Association (ASHA) requires clinical experience as a component of master's degree programs in speech-language pathology. Clinical experience must be supervised by a certified and licensed speech-language pathologist (CAA, 2017). For decades, clinical researchers have discussed the importance of the supervisory process in developing clinical skills in graduate level clinicians and novice speech-language pathologists (Anderson, 1988; ASHA, 2008; McAllister, 2005; McCrea & Brasseur, 2003; Robke, 2016).

The field of speech-language pathology has widely accepted Jean Anderson's (1988) Continuum of Supervision as a model for the supervisory process (ASHA, 2008; Atick Fencel &

Mead, 2017; Ho & Whitehill, 2009; McCrea & Brasseur, 2003; Robke, 2016; Wright &

Needham, 2016). In this model, Anderson cites the importance of collaborative supervision in

guiding supervisees from a stage of direct supervision towards independence and self-

supervision. Since Anderson's seminal work, *The Supervisory Process in Speech-language*

Pathology and Audiology (1988), researchers and conference presenters have regularly discussed

the essential nature of collaborative supervision in facilitating the development of clinical skills

in both the supervisee and supervisor (Atick Fencel & Mead, 2017; Brasseur, 1989; Fredrickson

& Moore, 2014; Geller, 2002; Geller & Foley, 2009a; McAllister, 2005; McCrea & Brasseur,

2003; Taliancich-Klinger & Cooperson, 2017).

Despite agreement in the field of speech-language pathology that collaborative

supervision, particularly as it relates to supervisory conferences, is essential to the development

of clinical skills, very little has been written recently or discussed on how to facilitate it (Ward,

2007). Anderson (1988) suggested specific strategies for supervisors to employ in their

conferences with supervisees. These included planning for supervision on the part of both the

supervisor and the supervisee, conducting observations with objectivity, avoiding an evaluative

nature in conferences and jointly analyzing data collected during the observation. Brasseur and

McCrea (2003) expanded on Anderson's work and provided specific strategies for each of

Anderson's identified components based on research in other fields such as education,

counseling, and nursing. And yet, in my experience as a clinical coordinator of a graduate

program in speech-language pathology, I have observed supervision strategies to be largely

directive in nature. This is illustrated most obviously by post-session discussions in the hallway

outside of the clinic room. These discussions are typically very quick as there is only 10 minutes

between sessions in which discussion can take place. The discussion follows a predictable

pattern. The student poses a question about the therapy session and the supervisor responds with a directive statement telling what to do next time. There may or may not be clarifying responses. The discussion is quick and directive. I have also observed a similar style of directive supervision in the written feedback provided by supervisors to students. In this context the supervisor acknowledges a knowledge gap or shortcoming of the therapy delivered by the student and provides suggestions for next time to remediate. Anderson explains that these type of exchanges create a dependence on the supervisor and become a detriment to developing independence (1988).

In addition to a lack of recent research in the area of collaborative supervision or collaborative conferences, little training exists to orient supervisors to collaborative strategies. Consequently many supervisors rely on supervision strategies employed by their own supervisors (Beckley, 2017; McCrea & Brasseur, 2003). McAllister (2005) states that there is a "resistance or an inability" (p. 145) among supervisors to employ unfamiliar strategies due to a lack of both training and support from both superiors and training institutions. They therefore fall back on the kinds of supervisory behaviors that were modeled by their own supervisors.

Clinical supervision has been established as an essential component in the development of clinical skills in speech-language pathology. Researchers have identified collaborative supervision as an important method to transition student clinicians from directive supervision to independence. Yet, a void exists in recent research on the topic of collaborative supervision strategies and collaborative supervisory conferences and training opportunities in these areas are few. Thus, supervision practices remain based in previous personal experience rather than systematic inquiry. Anderson (1988) and McCrea and Brasseur (2003) provide a useful framework on which to base the supervisory conference. But their framework is largely

theoretical and does not offer specific methodology to assist the supervisor in guiding the supervisee toward developing his or her own clinical independence. The Clinician's Hierarchy for Advancing Treatment (CHAT) (Duthie, 2008) may be a tool that could help supervisors facilitate more collaborative discussion during supervisory conferences as well as serve as a practical tool for less formal interactions between the supervisor and clinician that happen on a more regular basis.

The CHAT is a tool to help supervisors and supervisees discuss the client's level of performance and appropriate intervention strategies to match that level of performance. The clinical process of speech-language pathology is dynamic. Student clinicians must adjust their intervention and support strategies as the client progresses and sometimes regresses in therapy. The CHAT breaks down this process into five hierarchical levels of client performance (see Appendix D). Each level of client performance is visually matched to an appropriate level of clinician support required to advance the client to the next level. This visual allows the student the opportunity to reflect on their client's level of performance and his or her own level of support. The student can then clearly see and understand how to modify their own clinical behaviors to match the performance level of the client. It is predicted that supervisor-supervisee dyads that utilize the CHAT to facilitate their supervisory conferences will perceive the supervisory process as more collaborative than those dyads who do not use it.

Framework

The conceptual framework for this study is Anderson's Continuum of Supervision. This model describes the dynamic nature of clinical supervision in the field of speech-language pathology where the overarching goal is the professional development of both supervisee and supervisor. For this to occur, a collaborative relationship is essential. There are three stages to

this model. The first is the direct-evaluative stage, in which the supervisor directs the supervisee in how something is done, then evaluates how he or she did it. The second stage is the transitional stage. This stage features a collaborative supervision style with the power and responsibility gradually transferred from the supervisor to the supervisee over time. The final stage and ultimate goal is the self-supervision stage. This is occurs when the supervisee demonstrates proficiency, the ability to self-reflect and take responsibility for his or her own development (Anderson, 1988; McCrea & Brasseur, 2003).

While there are many different styles and methods of supervision, Anderson's Continuum of Supervision prioritized collaborative supervision above all others as the most effective in transitioning novice clinicians to proficiency. Under this model, supervisors should work to facilitate this type of relationship with their supervisees. In addition, supervisees should understand that their supervisor will expect their participation in a collaborative relationship.

Purpose of the Study

The purpose of the study is to examine the Clinician's Hierarchy for Advancing Treatment (CHAT) as a tool for facilitating collaborative supervisory conferences between clinical supervisors and graduate student clinicians in a university clinic.

Research Questions

1. When participating in an adult neurogenic communication disorders clinic, do graduate student clinicians whose supervisors utilize the Clinician's Hierarchy for Advancing Treatment (CHAT) in conferences perceive the supervisory process as more collaborative than graduate student clinicians whose supervisors do not utilize the CHAT in conferences?

2. Do university clinic supervisors in an adult neurogenic communication disorders clinic who utilize the CHAT in conferences perceive the supervisory process as more collaborative than supervisors who do not utilize the CHAT?

3. Does the impact of the CHAT utilization on the quality of collaboration as perceived by the student clinicians depend on the level of prior work experience under supervision?

Significance

This study will directly examine the efficacy of the CHAT as a tool to facilitate collaborative supervisory conferences. Findings will inform the field on whether this is a viable strategy to help student clinicians and their supervisors engage in collaborative supervisory conferences in which the student is an active participant.

The field of speech-language pathology has relied on an apprenticeship approach to training new clinicians. Speech-language pathology students begin serving clinical cases under the supervision of a master clinician as early as their third year of undergraduate education. Supervised clinical practice is a major component of all graduate level training programs in the field. Graduate students are required to accrue 400 practicum hours under the guidance of clinical supervisors (CAA, 2017). After graduating with a master's degree, new speech-language pathologists work as clinical fellows under the supervision of a master clinician in their setting to further develop clinical skills, which requires eight hours of direct supervision per month. Furthermore, the ASHA Code of Ethics states that any clinician (regardless of experience level) practicing in an area of the field in which they lack training or expertise should be supervised by a clinician who specializes in that area (ASHA, 2016). Anderson's Continuum of Supervision is the most widely recognized and accepted model for supervision and clinical development in the field. The model is based heavily on the collaborative style of supervision. Yet it has relatively little empirical evidence supporting strategies or practices to facilitate collaborative supervision.

In 2017, 17,000 people were enrolled in graduate level training programs for speech-language pathologists nationwide and another 8,000 had recently graduated and were in the process of completing their clinical fellowship year (CAPCSD & ASHA, 2018). All of these

developing clinicians were working with clinical supervisors. It is important to establish

evidence-based practices for type of supervision that we ask these supervisors to use in

mentoring their supervisees.

This study may also have significance in similar fields outside of speech-language

pathology. The fields of physical therapy, occupational therapy, counseling, and education, for

example, also utilize a clinical supervision approach to training.

Definitions and Terminology

ASHA - The American Speech-Language Hearing Association (ASHA) is a professional

association representing the fields of speech-language pathology and audiology. ASHA provides

guidelines for these professions in the forms of position statements, technical reports and an

established code of ethics as well as publications in several journals.

Clinical supervision - In defining *clinical supervision*, ASHA refers to Anderson's (1988)

definition – "a process that consists of a variety of patterns of behavior, the appropriateness of

which depends on the needs, competencies, expectations and philosophies of the supervisor and

the supervisee and the specifics of the situation (tasks, client, setting and other variables). The

goals of the supervisory process are the professional growth and development of the supervisee

and the supervisor, which it is assumed will result ultimately in optimal service to clients" (p.

12). ASHA expands on the definition by adding "professional growth and development of the

supervisee and the supervisor are enhanced when supervision or clinical teaching involves self-

analysis and self-evaluation. Effective clinical teaching also promotes the use of critical thinking

and problem-solving skills on the part of the individual being supervised" (ASHA, 2008).

McAllister (1997) sums up the concept of clinical supervision in a more succinct definition: "a

teaching and learning process which is student focused and may be student led, which occurs in the context of client care" (p. 3).

Supervisor - refers to the individual who is in charge of the tasks associated with clinical supervision (Anderson, 1988). The terms *clinical supervisor* and *clinical educator* are used as synonyms to refer to supervisor (McAllister, 1997; McCrea & Brasseur, 2003).

Supervisee - refers to the beginning clinician, often a graduate level student or clinical fellow in their first year of practice (Anderson, 1988; McCrea & Brasseur, 2003). The terms *student* and *student clinician* are used as synonyms to refer to the supervisee.

Collaborative supervision - "a dynamic, problem solving process wherein supervisor and supervisee work together to achieve optimum service for clients as well as the professional growth of both participants" (Anderson, 1988, p. 57). This is in contrast to directive supervision, in which the supervisor assumes responsibility and the supervisee is a passive participant in the processes.

Supervisory relationship - the formal relationship between the supervisor and supervisee with the primary goal of clinical development (Holloway, 1995), which is developed through a collaborative process and based on mutual respect (Falender & Shafranske, 2014).

Summary

Based on her investigation into the supervision process in other fields, Jean Anderson proposed a supervision model for the field of Speech-language Pathology and Audiology. This model has become the most widely accepted model for supervision in the field (ASHA, 2008; Atick Fencel & Mead, 2017; Ho & Whitehill, 2009; McCrea & Brasseur, 2003; Robke, 2016; Wright & Needham, 2016). Of the three stages defined by the model, the Transition stage (between Evaluation-Feedback and Self Supervision) is of particular importance in graduate

training programs. It is in this stage that student clinicians gradually take on more responsibility

and independence in the clinical process. Because of this gradual transition of responsibility,

collaborative supervision is the preferred style of supervision for this stage (Anderson, 1988;

McCrea & Brasseur, 2003). Beyond what was originally posed by Anderson in 1988 and

expanded on by McCrea and Brasseur in 2003, very little discussion has taken place in the

literature about specific strategies for facilitating collaborative supervisory conferences. The

CHAT may be a viable tool for facilitating collaborative supervisory conferences. This study

will examine the implementation of the CHAT in a university clinic and determine, based on

student and supervisor perception, if it facilitates collaborative supervisory conferences between

clinical instructors and graduate student clinicians.

CHAPTER 2: LITERATURE REVIEW

Clinical Supervision

Clinical supervision can be defined as "a teaching and learning process which is student focused and may be student led, which occurs in the context of client care" (McAllister, 1997, p. 3) as opposed to an education that is didactic in nature and occurs in the classroom or lecture hall. As in many fields, particularly those related to the health sciences, clinical education plays an important role in speech-language pathology training programs. In fact, the Commission on Academic Accreditation (CAA), which sets accreditation standards for the field, requires specific and robust standards of graduate level training programs to provide clinical education in addition to didactic education (CAA, 2017). A major component of clinical education is clinical supervision. Clinical supervision refers to the process that occurs between clinical supervisor and supervisee with the objective being the development of the supervisee (ASHA, 2008). It is this process that will be explored in this literature review.

In speech-language pathology training programs, clinical supervision typically occurs in two contexts; on-campus speech-language pathology clinics and off-campus internships sites. In university clinics, students provide speech-language pathology services to members of the community, often at little or no cost to the clients. Clients of university clinics include children with communication disorders or developmental disorders such as autism or Down syndrome that affect their communication, or people who have acquired a communication disorder as the result of conditions such as stroke or brain injury. Clients attend the clinic on a regular basis, usually once or twice a week for sessions of about an hour. In their work with these clients, student clinicians are supervised by licensed speech-language pathologists who may be members

of the teaching faculty or adjunct faculty hired for the specific purpose of supervising in the clinic. Supervisors meet with student clinicians to help them prepare assessment plans, long term treatment plans and daily treatment plans. Then the supervisors observe therapy between the student clinicians and their clients from the obscurity of an observation room. Following each session, supervisors are typically expected to provide the clinicians with some sort of feedback, either verbally or written. In the university clinic, supervisors are often charged with supervising 2-4 students conducting therapy in separate rooms simultaneously. Off-campus internships are diverse in setting and types of patients. Settings include school placements ranging from pre-school to high school and medical settings such as acute care hospitals and skilled nursing facilities as well as clinics. The nature of clinics varies from pediatric clinics serving children with developmental disorders to rehabilitation clinics serving people dealing with acquired disorders. In off-campus internships, the supervisors are typically full-time or part-time practicing speech-language pathologists. They mentor the student while providing care to the clients or patients. Internship supervisors typically volunteer to supervise, though some universities are beginning to offer small stipends for supervising. In internship settings, supervision is typically one-on-one, with the supervisor training the student on how to provide care in that particular setting.

The American Speech-Language Hearing Association (ASHA) began requiring clinical experience as part of university speech pathology training programs in 1938. Four years later, the association found it necessary to specify that this clinical experience would be supervised, and thus the birth of clinical supervision in the field of speech-language pathology (Anderson, 1988). It was not until 1978 that the association determined that little data or knowledge of supervision methodologies existed in the field and the academic community began to study this

topic (ASHA, 2008). Anderson released her seminal book, *Supervision in Speech-Language Pathology and Audiology* in 1988, which proposed a new model for supervision, the Continuum of Supervision. This model has become the most widely accepted supervision model in the field (ASHA, 2008; CAPCSD, 2013)

The purpose of this literature review is to define clinical supervision, describe Anderson's Continuum of Supervision as a model for supervision in the field of speech-language pathology, provide a brief background of Anderson's Continuum, and provide a summary of some of the research into clinical supervision with the field of speech-language pathology as well as in related fields. The importance of collaborative supervision in the clinical development of novice speech-language pathology clinicians is also described.

Background

The term 'clinical supervision' was first termed by a scholar in the field of teacher education, Morris Cogan (1973), to describe a process of teacher training based on in-class observations by a supervising or master teacher. Based on his work with novice teachers, Cogan realized the need for objective classroom observations leading to the provision of descriptive feedback to the student teacher. He developed a "Cycle of Supervision" (p. 10), which consisted of eight stages designed to guide the supervisory dyad (supervisor-supervisee) through a process of shared discovery and analysis of teaching behaviors and outcomes (Brasseur, 1989; Cogan, 1973). A similar process and model was developed for the field of education by a contemporary of Cogan, Robert Goldhammer (1969). Similarly, Goldhammer's model was designed to incorporate clinical observation followed by shared analysis and interpretation of data collected during the observation (Brasseur, 1989; Goldhammer, 1969). The two models have been particularly influential in Jean Anderson's development of a model for clinical supervision for

the field of speech-language pathology and provide understanding of stage two in her model, to be discussed below.

In the field of speech-language pathology, supervision of clinical experience was first mentioned by ASHA in 1942, when the association began requiring that clinical experience as part of a university training program be supervised by an experienced clinician (Anderson, 1988). In 1978, the ASHA Committee on Supervision reported that there was a lack of knowledge regarding supervision methodologies in the field of speech-language pathology (Anderson, 1988; ASHA, 2008; CAPCSD, 2013; Robke, 2016) despite the publication of several dissertations and scholarly articles (Anderson, 1988). Nearly a decade later, the committee developed a position paper defining clinical education within the field of speech-language pathology as a distinct area of practice (Robke, 2016). Based on the scholarship and practice of clinical supervision in the fields of teacher education and communication sciences and disorders, Jean Anderson published *The Supervisory Process in Speech-Language Pathology and Audiology* in 1988. In this book, Anderson proposed the Continuum of Supervision, a model that would become the most widely accepted model of supervision in the fields of speech-language pathology and audiology (ASHA, 2008).

Anderson's Continuum of Supervision

Anderson's Continuum of Supervision is an approach to clinical supervision that focuses on the clinical development of novice clinicians through a gradual transfer of responsibility from the supervisor to the supervisee. The model incorporates aspects of models presented in education by Cogan (1973) and Goldhammer (1969).
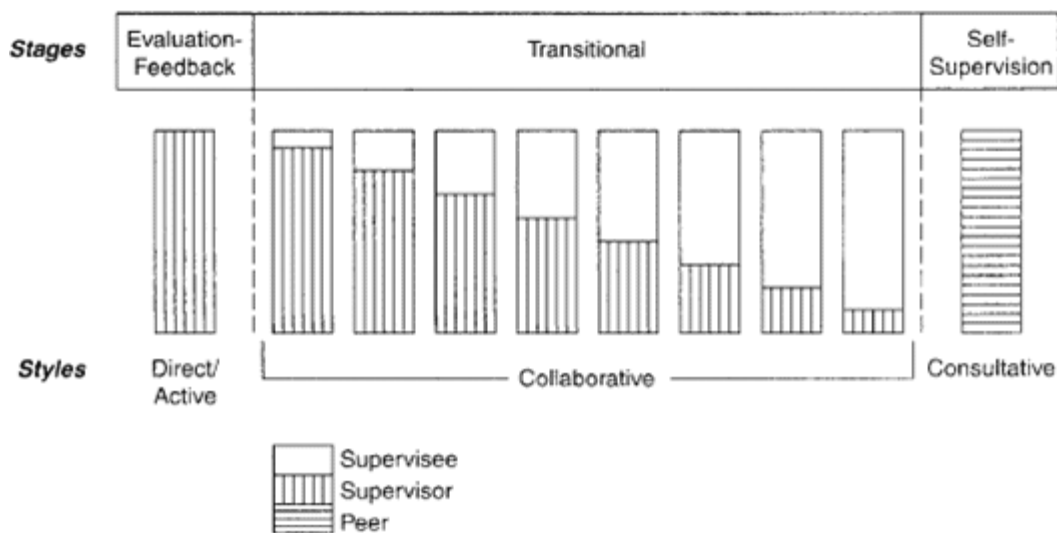
Figure 1. Anderson's Continuum of Supervision (McCrea & Brasseur, 2020). Reprinted with permission from SLACK Incorportated.

Anderson's Continuum of Supervision features three stages. In each of these stages, a particular type of supervision is identified as the most appropriate. As the clinician's clinical skills develop, the supervisor transitions more responsibility to the clinician. The ultimate goal of Anderson's continuum is for the clinician to develop the skills needed to become independent in their clinical practice and engage in self-supervision (Anderson, 1988; McCrea & Brasseur, 2003). Each stage is described in more detail below.

The first stage, Evaluation-Feedback, is designed for the most novice of clinicians. The supervisor provides directive supervision. Using a directive style of supervision, the supervisor will assume the dominant position of directing and informing the student on what to do and evaluating how it is done (Anderson, 1988; Brasseur, 1989; Gebhard, 1984; McCrea & Brasseur, 2003). Directive supervision allows for an introductory period in which the supervisor assumes the responsibility for the clinical process by explicitly directing the student on what to do. This is important in the initial stages of clinical development as the clinician has yet to develop the

skills or knowledge base to make clinical decisions. Thus, while all clinicians require directive supervision initially, the goal of this stage is to move the student to the next stage, the Transitional Stage, as quickly as possible considering that directive supervision is not conducive to the development of independence. In the Transitional Stage, the goal is to gradually transition the responsibility and power from the supervisor to the supervisee. Anderson calls for a collaborative supervision style where interaction becomes more collegial (Brasseur, 1989; Cogan, 1973) and the supervisor works with the supervisee but doesn't direct him or her (Gebhard, 1984). For example, a student might approach the supervisor with a problem. Rather than direct the student in how to address the problem, the supervisor would take the time to discuss the problem with the student, encouraging the student to take responsibility for the problem and develop possible solutions. In this example, the final decision in how to address the problem is made jointly between the supervisor and the supervisee. As the responsibility and the power transition to the student, the student begins to develop self-reflective and self-evaluative skills needed for more independent clinical practice (Anderson, 1988; McAllister, 1997; McCrea & Brasseur, 2003). The final stage, Self-Supervision, occurs as the student becomes independent and responsible for his or her own clinical development. The supervisee may continue to consult the supervisor, but the relationship becomes one of peers rather than of supervisor and subordinate (Anderson, 1988; Brasseur, 1989; Ellis, 2010; McCrea & Brasseur, 2003).

As part of the continuum model, Anderson proposes five essential components for the supervisory process:

Component I – Understanding the Supervisory Process. It is important for the supervisory process to be defined and discussed between the supervisee and supervisor throughout the process (Anderson, 1988). These discussions should include components of the

process and expectations about each person's role in the collaboration (Anderson, 1988; McCrea & Brasseur, 2003).

Component II – Planning. This planning refers to two processes: the clinical process and the supervisory process. This component offers the opportunity for truly shared responsibility. The supervisor should facilitate the supervisees participation and even responsibility for the planning of both processes (Anderson, 1988; Cogan, 1973; McCrea & Brasseur, 2003). "If supervisors are really planning *with* supervisees and not for them, supervisees ideas will be accepted, developed and implemented" (Brasseur, 1989, p. 281). Much of Anderson's tenets for this component are derived from Cogan (1973), who proposed that the purpose and direction of the supervisory process should be jointly developed between the supervisor and supervisee with the assumption that the supervisee is able to identify areas for improvement independently or at least with guidance from the supervisor. Brasseur (1989) identifies the following objectives for the planning component: 1.) Setting objectives for the supervisory process, 2.) Planning the data to be collected during the observation, 3.) Planning the analysis of collected data and 4.) Planning the role of each participant.

Component III – Observing. The most important tenet of the observing component is that observations should not be evaluative. Rather, the observation is an opportunity for the supervisor to collect objective data (Anderson, 1988; Cogan, 1973) in a clear and concise way that they can be analyzed (Goldhammer, 1969). Goldhammer further stressed that the supervisor should record what he sees and not how he feels about it. In addition, the data collected should be jointly determined in the planning and will be jointly analyzed in the analysis component (Anderson, 1988; Cogan, 1973).

Component IV – Analyzing. This is a joint process of making meaning out of the data collected during the observation (Anderson, 1988; Cogan, 1973). This analysis allows the dyad to determine if objectives are met and identify patterns in the clinical behaviors of the clinician as well as critical incidents in the session (Brasseur, 1989; Cogan, 1973). Brasseur (1989) emphasizes the importance of involving the supervisee in the analysis and interpretation of data as a way to develop self-analysis skills.

Component V – Integrating. This component is what makes up the bulk of the supervisory conference, the meeting and discussion between the supervisee and supervisor. This conference will include feedback, discussion of procedural topics such as report writing, personal concerns and general information related to professional development (Anderson, 1988). In some cases, the integrating component will re-initiate the process with a planning discussion based on the data analysis where new techniques or concepts will be brainstormed and new plans conceived (Cogan, 1973). In other words, the components represent a process or sequence that can become cyclical where the final component, integrating, often leads back to the first component, planning.

Themes in the Literature

Very few studies focus on the provision of specific types of supervision as Anderson describes. Only one study, published in 1990, explored the efficacy of collaborative supervision using the five components of Anderson's continuum. The study implemented supervisory conferences which utilized Anderson's five components. In addition to the five components, supervisors and supervisees put agreements on action items in writing. The study found that supervisees "altered their clinical behaviors as a direct consequence of their clinical supervision experiences" (Gillam et al., 1990, p. 737). Gillam et al. concluded that their study demonstrated

the efficacy of implementing components from Cogan's Clinical Supervision Model and Anderson's Continuum of Supervision Model such as data based discussions of clinical behaviors, jointly developed observation and data analysis strategies and documented conference agreements. With the exception of this study, no other study is known to have examined the use Anderson's Continuum of Supervision. However, there are several themes in the literature that explore aspects of collaborative supervision including the supervisory relationship, provision of feedback, the role of reflection, responsibility and transfer of responsibility and the supervisory conference and lack of supervisor training.

Supervisory Relationship

Collaborative supervision relies on a positive working relationship between the supervisor and supervisee (Atick Fencel & Mead, 2017; Carter et al., 2017; Fredrickson & Moore, 2014). Cogan (1973) and Goldhammer (1969) first stressed this in their initial models of clinical supervision in education. Cogan states "there should be a strong initial emphasis on person-oriented relationships…most teachers cannot commit themselves to task-oriented behavior until they feel secure at the deeper personal level" (p. 51). This implies that in order for teachers to be receptive to making changes in their teaching behaviors, they must first have trust in the supervisor and the supervisory process. Cogan felt strongly about the importance of relationship building, making it the first step in his model, a five step sequence to facilitate collaborative supervision. While Goldhammer did not dwell on relationship building as part of his sequence, he does introduce clinical supervision as requiring a "supportive and empathetic" interaction where the dyad treats one and other "decently and responsibly and with affection" (p. 55-56).

British researcher/author Julian Edge developed a model for professional development of teachers which he titled *Cooperative Development* (Edge, 1992). Edge's model is based on collegial cooperative development of two or more participants engaging in clinical supervision. He unequivocally states that for this type of collaboration to be possible "a relationship of trust is necessary" (Edge, 2003, p. 58). Edge argues that the development of a trusting relationship is necessary to create a climate where participants feel comfortable discussing all aspects of the clinical process candidly, including their own affective responses to that process (Edge, 2003). While Edge's model focuses more on the clinical supervision of colleagues rather than of students or beginning clinicians, he is speaking of truly collaborative relationships with the ultimate goal of self-development. A similar model was developed in the field of counseling by Harlene Anderson and Susan Swim (1995). In their model, Postmodern Collaborative Approach to Therapy, they stress that "supervision is a collaborative conversation that is generative and relational, through which supervisees create their own answers" (p. 1). While this model mirrors previous models of clinical supervision, one concept that it adds is the importance of discourse between supervisor and supervisee in the development of clinical skills (Anderson & Swim, 1995). Jean Anderson's model for SLP shares these goals. Similar to models presented by Edge and Anderson and Swim, the objective of the Transitional Stage on Anderson's Continuum of Supervision is to guide students or novice clinicians to develop the skills needed to engage in self-supervision or self-development (as Edge calls it).

Research in the field of SLP began referring to the importance of the supervisory relationship in the early 1980s when investigators began examining the role of interpersonal communications in supervisory conferences (McCrea & Brasseur, 2003; O'Connor, 2008). Findings indicate that when supervisors demonstrate "regard, genuineness, empathetic

understanding and concreteness" (McCrea & Brasseur, 2003, p. 213), supervisees make positive

changes in their clinical behaviors. Elaine Geller (2002) expanded on this in publishing her own

model for supervision in speech-language pathology. Titled *A Reflexive Model of Supervision in*

Speech-Language Pathology, Geller's model is built on the notion that "all learning takes place

in the contexts of relationships and is critically affected by the quality of those relationships" (p.

192). Geller stresses that collaborative supervision styles require a shift from the student as

receiver of knowledge to actively participating in the construction of knowledge. Another key

component to Geller's model is reflection, which will be discussed later, but deserves

mentioning here as both reflection and becoming an active participant in the process depend on

the development of a working and trusting relationship (Geller, 2002; Geller & Foley, 2009a).

The American Speech-Language Hearing Association has also indicated the importance of the

supervisory relationship, stating that the supervisory process should be "based on a foundation of

mutual respect and effective interpersonal communication" (ASHA, 2008).

Studies examining student perceptions corroborate the importance of the relationship in

the supervisory process. In one study, 97% of student clinicians in the fields of speech-language

pathology, occupational therapy and physical therapy indicated that the clinical instructor was an

important factor in their positive perception of the off-campus internship site (Hall et al., 2012).

When asked what they wanted from their clinical supervisors, students have indicated that they

want someone who is "easy to relate to" and "encouraged confidence and independence" (Hall et

al., 2012, p. 555), a supervisor who creates a safe environment to help students develop

confidence in the new setting (Mandel, 2015). On a positive note, it is becoming more common

for supervisors to incorporate relationship building into the supervisory process than in previous

decades when clinical educators focused primarily on the science and theory of communication disorders (Geller, 2002).

Feedback Provision

Methods and perceptions related to the provision of feedback are also discussed in the literature. This discussion again dates back to Cogan (1973). Cogan describes feedback as an objective discussion of behaviors and outcomes that were observed by the supervisor during the classroom lesson. Anderson (1988) and McCrea and Brasseur (2003) spend considerable time discussing the importance of planning for feedback prior to providing it. Different forms of feedback are also discussed (e.g. written, verbal, immediate and delayed). Yet there is little empirical evidence to suggest one form of feedback is more effective than another (Ho & Whitehill, 2009). Student perception studies have indicated the preference for immediate feedback as opposed to delayed feedback, but there is no consensus on the modality (Carter et al., 2017; Fredrickson & Moore, 2014; Ho & Whitehill, 2009). This lack of consensus could point to the fact that individualized supervisory practices are most appropriate and supervisor-supervisee dyads should determine how feedback will be provided (McCrea & Brasseur, 2003). Few studies examine actual supervisor practice in terms of feedback provision. What is apparent is that inexperienced supervisors tend to provide significantly less feedback than their more experienced colleagues (Taliancich-Klinger & Cooperson, 2017), further indicating the need for supervision training opportunities.

What is not mentioned in the current research is the importance of reciprocal feedback that was introduced by Cogan (1973). The Continuum of Supervision specifies that supervisees and supervisors will both be providers and receivers of feedback (Anderson, 1988). Pickering briefly mentioned this in her work on interpersonal communication where she described

supervisory conferences and indicated that in her observations both supervisors and supervisees brought up personal concerns (Pickering, 1984). Finally, in an article in ASHA's professional magazine, The ASHA Leader, Lisa O'Connor mentions feedback as a "reciprocal dialogue" (O'Connor, 2008).

Reflection

The discussion on the role of reflection in the supervisory process specific to speech-language pathology was initiated by Jean Anderson (1988) when she proposed the final stage of the continuum to be Self-Supervision. Anderson explained that in order to engage in self-supervision, one must develop self-analysis skills which require the ability to reflect on one's own strengths and weaknesses and develop solutions to function independently (Brasseur, 1989). Reflection is the process of "understanding what one is doing versus what one is observing…it is both a means and the end of the process of supervision" (Geller, 2002, p. 195). This process ensures that "clinical decisions are made out of conscious awareness" (Geller, 2002, p. 195). Anderson assumed this skill set was one that would need to be taught or trained as evidence by the Transitional stage being a collaborative process of skill development (Anderson, 1988). Research has shown that undergraduate speech-language pathology students demonstrate an emerging ability to self-reflect, but few were categorized as 'critical reflectors' (Hill et al., 2012). This indicates that reflection is a skill that supervisors need to plan on helping their supervisees develop. Structured questionnaires related to performance indicators have been shown to help student clinicians develop self-reflection skills (McCarthy & McCarthy, 2010).

Another way the research views reflection is as a means to examine the affective responses of the clinician to both the clinical process and the supervisory process and the importance of acknowledging these responses (Geller, 2002; Geller & Foley, 2009b; Mandel,

2015; Pickering, 1984). Supervisees often share their feelings, emotional responses, stress or difficulties with their supervisors, however supervisors rarely engage in discussions regarding affect (Geller, 2002; Pickering, 1984; Rardin, et al., 1988). Acknowledging and working through feelings will often help facilitate the learning process (Rardin, et al., 1988).

The literature approaches reflection as it relates to the supervisory process from two different angles. The first is one's ability to reflect on clinical behaviors and the clinical process in order to promote self-development. The second is the need to reflect on the emotional response to both the clinical process and the supervisory process. Geller and Foley (2009) sum up these two approaches by concluding that "the process of supervision should address content that is both cognitive and affective in nature" (p. 30).

Responsibility Transfer

Responsibility and the gradual transfer of responsibility is the primary tenant of the Transitional Stage of Anderson's Continuum. This is where the supervisor and supervisee work in a collaborative manner to facilitate the supervisee's gradual assumption of the responsibilities of the clinical process (Anderson, 1988; Brasseur, 1989; McCrea & Brasseur, 2003). In his model of *Cooperative Development*, Edge (Edge, 2003) states "the most fundamental step of all is to take responsibility" (p. 60). This speaks to Anderson's model as the final step in her continuum is the ultimate assumption of responsibility for both the clinical process and one's own supervision. Little has been documented on how best to facilitate this transfer of responsibility. One strategy is to integrate written commitments into the *integration* component of the supervisory process. In other words, during the supervisory conference the dyad will likely determine actions that need to take place or behaviors that the supervisee would like to modify in their clinical work. These action items can be agreed to in writing by both parties.

One study demonstrated that this strategy worked well with novice student clinicians, but should be faded as clinicians progress along the continuum (Shapiro & Anderson, 1989). Several studies have indicated positive student perceptions when supervisors facilitate the transfer of responsibility and promote the clinical development of the supervisee by moving them along the supervision continuum (Atick Fencel & Mead, 2017; Hall et al., 2012; Mandel, 2015).

Supervisory Conference

Several scholars have analyzed the supervisory conference. The supervisory conference was at the heart of Cogan's (1973) model. He proposed that it was at this meeting where supervisee and supervisor collaborated to create meaning out of the data collected in the observation and to advance the clinical development of the supervisee. Anderson's Continuum of Supervision model mirrors this through her five components, particularly Components IV and V – Analysis and Integration, which are designed to take place in a conference with participation from both supervisor and supervisee (1988). Components I-III are designed as preparatory steps for a meaningful conference. With such importance placed on this meeting in the leading clinical supervision models, it could be predicted that supervisors are skilled at facilitating conferences. Unfortunately, researchers in the field of speech-language pathology in the 1970's and 1980's found quite the opposite. Brasseur (1989) summarizes research on supervisory conferences from the previous two decades in a list of nine common traits of supervisory conferences:

1. Conferences are usually less than 30 minutes in length
2. Supervisors do most of the talking
3. Supervisors do most of the structuring
4. Topics change frequently
5. Supervisees recount what occurred during clinical sessions
6. Supervisors provide information and suggestions without accompanying rationales or justification
7. Discussions are primarily cognitive rather than affective

8. Supervisors behave the same from conference to conference throughout a practicum
9. Supervisors do not exhibit significantly different behaviors from one supervisee to another (Brasseur, 1989, p. 276)

In addition, Shapiro and Anderson (1989) cite several studies that found that most conference time was spent discussing client behaviors. It is clear to see that these patterns are not consistent with the types of conferences that Cogan (1973), Goldhammer (1969) or Anderson (1988) had in mind when they formulated their models of clinical supervision around a supervisory conference. According to many researchers, in order for supervisory conferences to be an effective tool for clinical teaching, both parties need to be committed to a joint process of planning, data collection, analysis and integration (Anderson, 1988; Cogan, 1973; Goldhammer, 1969; McCrea & Brasseur, 2003; Ward, 2007).

Lack of Supervision Training

What becomes obvious in a review of the literature on clinical supervision is that this is a complex practice that requires the development of specific skills and strategies. And yet, too few supervisors are adequately trained or prepared to take on a supervisee (Beckley, 2017; Geller, 2002; Wright & Needham, 2016). Only 31% of supervisors indicate that they received education on how to work with student clinicians and regardless of experience level, 81% of supervisors are interested in continuing education on supervision (Fredrickson & Moore, 2014). And not only are supervisors desiring more training, students have indicated that the availability of trained supervisors is the number one factor in choosing clinical placements (Sheepway et al., 2011).

The lack of available training often leads to supervisors being resistant to implementing new approaches to clinical education (McAllister, 2005) and reliant on their own experience of being supervised as their primary source of information on supervision practices (Klick &

Schmitt, 2010). This further indicates the lack of formal training that many supervisors experience. In consideration of the lack of supervision training available in the field of speech-language pathology, the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD) released online training programs in clinical supervision in 2017. These modules are available free of charge to supervisors of SLP student clinicians. At the same time, the American Speech-Language Hearing Association has announced a new requirement of supervisors to obtain two hours of continuing education prior to engaging in supervision (Procaccini et al., 2017).

Supervision in Related Fields

Review of literature from other related fields, including physical therapy, occupational therapy and counseling indicates similar themes and issues with supervising novice clinicians. These fields have recognized the importance of the supervisory relationship, feedback provision and the development of clinical skills, critical thinking and reflexive practice (Bernard & Luke, 2015; Borders et al., 2014; Hall & Cox, 2009; Koski, Simon, & Dooley, 2013; Lambie & Ascher, 2016; Martin, Kumar, Lizarondo, & VanErp, 2015; McCallum, Reed, Bachman, & Murray, 2016; Sellars, 2004). But conceptual models are rarely mentioned. Only one model of supervision is described in the literature reviewed from these three professions. Proctor's Three Functions of Clinical Supervision model is cited as a plausible model for the field of physical therapy, but is quickly dismissed because of a lack of empirical evidence (Sellars, 2004). Lack of research or evidence for clinical supervision is a common theme across the literature in these professions (Bernard & Luke, 2015; Lambie & Ascher, 2016; Ryan & Beck, 2018; Sellars, 2004). Articles from the field of physical therapy indicate that clinical supervision as a practice has only been recently introduced to the field, is not widely used, and that the term 'clinical

supervision' is confusing and not well defined in the field (Hall & Cox, 2009; Sellars, 2004).

Based on this small sample of studies, it appears that the field of speech-language pathology has

developed broader understanding and use of clinical supervision as well as more specific

definitions and models to guide practitioners than has been developed in related fields.

Clinician's Hierarchy for Advancing Treatment (CHAT)

In 2008, Duthie developed the CHAT, a tool to help student clinicians identify and

implement appropriate levels of support to advance their clients' therapeutic progress. With the

support of the clinical supervisor, the "student clinician learns to identify the level of skill

acquisition demonstrated by the client at any point in the therapeutic process and match his or

her level of support accordingly" (Duthie, 2008). The CHAT is a matrix that describes five

broad levels of client functioning and pairs them with five broad levels of clinician supports.

This allows the student and supervisor to have objective conversations about specific client and

clinician behaviors and their effects on client outcomes at any point in the therapeutic process.

Subsequent studies have shown that implementation of the CHAT system in university clinics

(where clinicians serve children) positively affects clinical competencies of student clinicians as

compared to traditional supervision strategies (Duthie & Brock, 2012; Duthie & Robbins, 2013).

This particular tool was the first hierarchical approach to clinical supervision with established

efficacy in the field of speech pathology at the time of development and is one of the few overall

approaches to clinical supervision with empirical support (Duthie & Robbins, 2013).

Analysis of the CHAT reveals that it addresses most, if not all, of the themes in the

literature presented earlier; feedback provision, reflection, responsibility transfer, the supervisory

conference and the supervisory relationship. Feedback provision is an essential component of

clinical supervision and should be reciprocal dialogue (Anderson, 1988; Cogan, 1973; Ho &

Whitehill, 2009; McCrea & Brasseur, 2003; O'Connor, 2008). The CHAT allows the supervisor

to provide very objective feedback by focusing on the behaviors of the clinician and the client.

The focus on behaviors rather than the person in providing feedback is a major tenant of Cogan's

original model of clinical supervision. Furthermore, it gives the clinician the opportunity to

engage in a dialogue with the CHAT matrix as the talking point. The CHAT can be the catalyst

for responsibility transfer, where the clinician is charged with identifying the levels, and only

then receiving feedback from the supervisor. This process would likely provide a structure for

the clinician's reflection on their therapy and allow the clinician to take on more responsibility

for clinical decision making. The CHAT matrix provides a focus for supervisory conferences

where objective, data driven conversations resulting in collaborative planning for the therapeutic

process can take place. As described by Duthie (2008), the CHAT serves to promote skill

attainment of the clinician through collaborative discussions with the clinical supervisor.

Ultimately, all of these factors will likely lead to the development of positive working

relationships between clinicians and supervisors that is the foundation to collaborative

supervision as described by both Cogan and Anderson.

Implications

Education in the field of speech-language pathology has developed into a combination of

didactic and clinical experience components. ASHA identifies specific requirements for pre-

professional training through clinical practicums supervised by experienced, licensed and

certified speech-language pathologists suggesting that clinical supervision is the most

appropriate style of clinical training (ASHA, 2008). Several models of clinical supervision have

been presented in the literature with Anderson's Continuum of Supervision specific to speech-

language pathology. This has become the most widely recognized model in the field for clinical

teaching. But little evidence exists for the efficacy of the model or the strategies suggested at various stages of the model (Duthie & Robbins, 2013). In fact, only one study is available examining the implementation of the components Anderson proposes as part of her model (Gillam et al., 1990).

Every university training program in the country incorporates clinical practicum into their curriculum. Beyond the experience of being supervised as a student clinician, beginning SLPs must be closely supervised during their clinical fellowship year (the first year of employment). In 2017, 321 university programs were offering undergraduate and/or graduate training in speech-language pathology (CAPCSD & ASHA, 2018). Over 17,000 students were enrolled in graduate level training programs and nearly 8,000 masters degrees were awarded (CAPCSD & ASHA, 2018). These numbers indicate that in 2017 alone, 17,000 graduate students and 8,000 clinical fellows were supervised by speech-language pathologists as part of their training. In addition, continuing education is required by ASHA to maintain certification and the code of ethics requires SLPs to obtain adequate training before treating new disorders or new populations (ASHA, 2016), which can be in the form of supervised practice. These policies and practices, set forth by the ASHA, indicate the significant importance of clinical training throughout one's career. Research in other helping professions such as nursing and counseling has documented the effectiveness of supervisor training in facilitating clinical supervision (Dehghani et al., 2016; O'Donovan et al., 2017). And yet, until recently, the availability of training in this area in the field of speech-language pathology was lacking. There continues to be a concerning shortage of research-based approaches or strategies in supervision.

Those who are charged with providing this clinical training, whether to students, clinical fellows or veteran clinicians looking to improve their skills, have indicated either a lack of

training in clinical supervision or a need for more continuing education opportunities to facilitate

the development of clinical supervision skills and strategies. Based on my own observations,

conference presentations and CEU workshops on the topic of clinical supervision in speech-

language pathology seem to fall short of providing evidenced based strategies, particularly for

the purposes of facilitating collaborative supervision.

Anderson's Continuum of Supervision offers a model for speech-language pathologists to

follow in supervising. While it is difficult to find empirical evidence to support the model, this

literature review has demonstrated that research has indicated the efficacy of certain aspects of

the model, including the importance of the supervisory relationship, methods related to feedback

and reflection, the gradual transfer of responsibility and the importance of the supervisory

conference.

A significant emphasis has been placed on the importance and role of clinical supervision

in the field of speech-language pathology, particularly in graduate level training programs and in

the clinical fellowship year. Four hundred hours of supervised clinical experience is required

prior to graduation. Another nine to twelve months of post-graduation, supervised experience is

required prior to earning ASHA's Certificate of Clinical Competence and the permanent license

to practice. And yet few training opportunities on supervision are available and empirical

evidence is limited even on the most widely accepted supervision model in the field. If, as a

field and a profession, we are to expect such an investment of time and energy of both

experienced SLPs and students or clinical fellows to engage in the supervisory process, it is

imperative that we know how to effectively facilitate this process and that the process is

evidenced based.

One piece of the model that I find particularly critical is the supervisory conference. In my experience, this exercise is not as effective as it could be in facilitating the clinical development of student clinicians. It is often more evaluative than collaborative (Brasseur, 1989; Gebhard & Oprandy, 1999). But it is difficult to know how to lead students in a collaborative supervisory process. This is where research and empirical evidence could make a significant difference in the day to day practice of supervision in the field of speech-language pathology. The CHAT is a good place to start. With some evidence backing its use in pediatric university clinics, it is gaining traction as a tool to help student clinicians develop critical thinking skills required for clinical practice. The CHAT also seems to address many of the themes and concerns reported in the literature regarding clinical supervision including facilitating a collaborative supervision process between supervisors and student clinicians. This study may provide evidence as to the validity of the CHAT as a method for facilitating collaborative clinical supervision.

Summary

Clinical supervision is a process of "teaching and learning…that occurs in the context of client care" (McAllister, 1997). Clinical supervision models originally developed in the field of education by Cogan (1973) and Goldhammer (1969) had significant influence on Anderson's Continuum of Supervision (1988), which has become the most widely accepted model of clinical supervision in the field of speech-language pathology. This is a three stage, dynamic model designed to facilitate the development of clinical skills in beginning clinicians through the implementation of differing types of supervision, ultimately resulting in self-supervision. The model includes five essential components: understanding the supervisory process, planning, observing, analyzing and integrating.

Very little research has been dedicated to Anderson's Continuum of Education. In fact, only one study specifically examines the effectiveness of the model. A review of the literature revealed six broad themes related to supervision in the field of speech-language pathology. These themes include the supervisory relationship, feedback provision, reflection, responsibility transfer and lack of training in supervision.

Related fields, including physical therapy, occupational therapy and counseling are also limited in their inquiry into models of supervision. Review of studies in the fields of physical therapy and occupational therapy indicate a lack of acceptance of any model of supervision. The field of counseling has a more robust base of literature on the topic, but similarly does not provide consensus on an accepted conceptual model.

Clinical supervision is essential to the training of speech-language pathologists as it is a major component of graduate level training programs and the clinical fellowship year (the first year of one's career). While the field has accepted Anderson's Continuum of Supervision as a model, this model has not been proven effective through research. It is important that a base of empirical evidence is established to support the clinical supervision models and strategies that supervisors are expected to implement in the training of novice clinicians. It is also important that the field develop accessible evidenced based supervision strategies and training opportunities to prepare supervisors to facilitate effective clinical supervision. The CHAT is a tool with evidence supporting its use in the context of pediatric university clinics. Further exploration of this method might be a step towards providing the field with empirically based supervision strategies to facilitate collaborative supervision resulting in the development of the clinical skills of novice clinicians as Anderson originally called for in 1988.

CHAPTER 3: METHODOLOGY

Statement of the Problem

The field of Speech-language Pathology (SLP) relies heavily on clinical education for the preparation and continued development of clinical skills of practitioners. A major component of clinical education is clinical supervision. Clinical supervision refers to the process that occurs between clinical supervisor and supervisee with the objective being the development of the supervisee (ASHA, 2008) in the context of treating a patient or patients. The field has adopted Anderson's Continuum of Supervision as the model for which supervision should be provided or practiced. This model stresses the importance of collaborative supervision in transitioning the student clinician from being dependent on the supervisor to developing a level of self-supervision (Anderson, 1988). While Anderson provided a framework for collaborative supervision, very few studies have examined specific strategies for facilitating this type of supervision in clinical education settings in the field of speech-language pathology.

In 2008, Duthie developed the CHAT, a tool to help supervisors teach clinical decision making to their student clinicians through a hierarchical approach of comparing client performance with clinician support. A subsequent study demonstrated the CHAT to be effective in facilitating the development of clinical competencies of student clinicians participating in two university based, pediatric speech-language pathology clinics (Duthie & Robbins, 2013). It was predicted that the implementation of the CHAT system facilitates a more collaborative supervisory process consistent with the tenants of Anderson's Continuum of objective observations and data tracking to guide supervisory conferences and clinical decisions. However, the initial studies did not explore the CHAT's impact on the supervisory process, only

the perceptions of student clinicians and supervisors relevant to skill development. Therefore, there is limited evidence for the effectiveness of the CHAT as a strategy for facilitating collaborative supervision.

Research Questions and Hypotheses

This study uses a quantitative, quasi-experimental research design to examine the levels of perceived collaborative supervision between a group of student clinicians and supervisors who utilized traditional techniques and a second group of student clinicians and supervisors who incorporated the CHAT into their supervisory conferences. The independent variable is whether the CHAT was implemented by the supervisor. The dependent variables are the supervisees' perceived level of collaborative supervision as measured by the Supervisory Relationship Questionnaire (SRQ) (Palomo et al., 2010) and the supervisors' perceived level of collaborative supervision as measured by the Supervisory Relationship Measure (SRM) (Pearce et al., 2013).

Quasi-experimental research design allows for the manipulation of an independent variable, but does not require the random assignment of subjects as a true experimental design would (McMillan & Schumacher, 2006). The independent variable being manipulated was the implementation of the CHAT as a supervision strategy. Due to the small sample available, random assignment was not practical. Instead, all participants in the first cohort were assigned to the control group. The control group utilized traditional supervision strategies. All participants in the second cohort were assigned to the treatment group. The supervisors of the experimental group were trained on the CHAT and encouraged to implement it in the supervision process throughout the semester.

The following research questions guided this study:

1. When participating in an adult neurogenic communication disorders clinic, do graduate student clinicians whose supervisors utilize the CHAT in conferences perceive the supervisory process as more collaborative than graduate student clinicians whose supervisors do not utilize the CHAT in conferences?
Ho: Student clinician perceptions of collaborative supervision do not differ significantly between the group utilizing traditional methods of supervision and the group utilizing the CHAT.
Ha: Student clinician perceptions of collaborative supervision are significantly greater for the group utilizing the CHAT than for the group utilizing traditional methods.

2. Do university clinic supervisors in an adult neurogenic communication disorders clinic who utilize the CHAT in conferences perceive the supervisory process as more collaborative than supervisors who do not utilize the CHAT?
Ho: Supervisor perceptions of collaborative supervision do not differ significantly between the group utilizing traditional methods of supervision and the group utilizing the CHAT.
Ha: Supervisor perceptions of collaborative supervision are significantly greater for the group utilizing the CHAT than for the group utilizing traditional methods.

3. Does the impact of the CHAT utilization on the quality of collaboration as perceived by the student clinicians depend on the level of prior work experience under supervision?
Ho: The impact of the CHAT utilization does not differ significantly between groups of students with experience working under a supervisor and those with no experience working under a supervisor.
Ha: The impact of the CHAT utilization differs significantly based on whether student clinicians have had experience working under a supervisor or not.

Participants

Population and Sample

The target population of the study is speech-language pathology supervisors and student clinicians in university training clinics. The sample was made up of two cohorts of supervisor/student clinician dyads from a university speech-language pathology clinic on the campus of a small, private university located in the western United States.

The sampling method used was convenience sampling. Convenience sampling allows the researcher to determine participants based on accessibility. The researcher had direct access to supervisors and student clinicians in the Valley Speech & Language Clinic. Valley Speech & Language Clinic is a pseudonym. All supervisors and student clinicians participating in the

Valley Speech & Language Clinic in the spring, 2019 and fall, 2019 semesters were invited to participate in the study. Convenience sampling restricts the generalizability of findings to characteristics of the subjects (McMillan & Schumacher, 2006). But this is not a significant barrier to generalizability to the target population as the SLP graduate student population at the university where this took place is a good representative sample of graduate students at university SLP programs nationwide. To ensure that the sample is representative of the population, the One-Tailed Exact Binomial test was used was used to compare the demographics of the sample to those of the population. This analysis indicated that the sample does not differ significantly from the population in terms of gender, but it is more diverse than the population in terms of ethnicity. More information is presented in Chapter 4.

Each cohort was made up of approximately 15 students and 5 supervisors. Exact number of participants in each cohort is not possible to define as each participant submitted multiple surveys; one for each supervisory dyad that they were a part of. Student clinician participants served clients under the supervision of two different supervisors. Therefore, each cohort consisted of potentially 30 supervisor/student clinician dyads, for a total of 60. Survey participation was voluntary and thus it was not expected that all potential participants would decide to participate. A response rate of 90% was predicted. Supervisor and supervisee responses were unmatched and used in separate analysis. Therefore, with this response rate, n=54 per analysis.

To determine the minimum sample size needed, the software G*Power (Faul et al., 2007) was utilized. A summary of inputs and results is shown in Table 1 below. If it assumed the effect size to be in the medium range (as indicated by f^2 value of .15) then a sample of 55 was needed. If the effect was to be more pronounced (as indicated by f^2 value of .35) then a sample

size of 25 was needed. Samples of these sizes would be required to be reasonably sure (at a

probability of .80) that the test of significance will be able to detect the effect (e.g., of clinical

experience moderating the impact of supervision strategy on perceptions of collaborative

supervision). Based on this power analysis and a sample size of n=54, the effect size would need

to be medium to be detected.

Table 1
Summary of G*Power inputs and results for determining sample size to address research question 3 (the moderating effect of previous experience)

Set Parameters:	
Test family	F tests
Statistical test	Multiple Regression: fixed model, R^2 increase
Type of power analysis	A priori: Compute required sample size- given α, power, and effect size
α error probability	.05
Power (1-β error probability)	.80
Number of tested predictors	1
Total number of predictors	3

Varying Inputs (Effect size f^2):		Results (Total sample size)
Small	.02	395
Medium	.15	55
Large	.35	25

Rights of Human Subjects

The study involved human subjects. Thus, the Institutional Review Board at the

university reviewed the study. No data was collected prior to formal IRB approval. The nature

of the study presented limited risk to the participants. Participation was completely voluntary

and surveys were anonymous to maintain confidentiality. Individuals invited to participate in the

study were provided a letter describing the research and the voluntary nature of participation (see

Appendix A). The letter included a section where the participant indicated their informed consent. All data collected was collected anonymously and kept confidential. Data was secured in a locked file cabinet in the clinic office and on the encrypted computer of the principal researcher. Data will be kept for three years after the conclusion of the study, at which time it will be destroyed.

Instrumentation

The main objective of the study was to examine the effect of the implementation of the CHAT on student and supervisor perceptions of the supervisory process, specifically, the collaborative nature of the supervision. The independent variable is whether the CHAT has been implemented by the supervisor (which corresponds to the cohort semester: spring, 2019 without CHAT and fall, 2019 with CHAT). The dependent variable is the perceived level of collaborative supervision as indicated by both the supervisor and student clinician on surveys targeting the nature of the supervisory process. Prior experience working under supervision (prior to graduate school admission) was also investigated as a potential moderating variable in RQ3.

Operational Definitions

Two constructs that require operational definitions are collaborative supervision and supervisory relationship. Collaborative supervision is a style of clinical supervision defined by Anderson (1988) as "a dynamic, problem solving process wherein supervisor and supervisee work together to achieve optimum service for clients as well as the professional growth of both participants" (p. 57). This type of supervision requires that both participants assume responsibility for both the supervisory process and the clinical process (McCrea & Brasseur, 2003) as opposed to direct supervision, where the supervisor assumes the responsibility and the

supervisee is a passive participant in the process. The supervisory relationship is defined as a formal, hierarchical relationship between the supervisor and supervisee with the primary goal of clinical development (Holloway, 1995). It is both developed through and a pre-requisite of a collaborative process between the supervisor and supervisee and grounded in mutual respect (Falender & Shafranske, 2014).

For the purpose of research question #3, previous work experience under supervision must be clarified. Student clinicians were asked to indicate if they had work experience prior to enrolling in the master's degree program. They were asked to specify if their work experience was "work experience in a job (or jobs) under the direction of a manager or supervisor who was responsible for my training and evaluating my performance."

Selected Measures

Two previously published questionnaires were used to survey the participants regarding perceptions of collaborative supervision process. The Supervisory Relationship Questionnaire (SRQ) (Palomo et al., 2010) was used to survey student clinicians. The Supervisory Relationship Measure (SRM) (Pearce et al., 2013) was used to survey the clinical supervisors. While the primary objective of this study was to examine the construct of collaborative supervision, very few measures exist to measure such a construct. However, research has shown that the supervisory relationship is both a pre-requisite to and is dependent on collaboration between supervisors and supervisees (Atick Fencel & Mead, 2017; Ellis, 2010; Falender & Shafranske, 2014; Geller, 2002; Geller & Foley, 2009a; Palomo et al., 2010). The SRQ and SRM both contain a subscale titled "Safe base," for which items directly address aspects of collaborative supervision. Thus, while not designed specifically to measure collaborative

supervision, these measures are highly relevant to investigating collaborative supervision consistent with Anderson's Continuum of Supervision.

The SRQ (Palomo et al., 2010) was designed to survey student clinicians about their perceptions of the supervisory relationship. This measure was developed based on a grounded theory study by Beinart (2004), in which supervisees were asked to describe aspects of supervision that were most and least effective in their own clinical development. Nine themes resulted from this study. Items for the SRQ were developed based on these themes. Factor analysis was conducted on the original 111 items. Each item that loaded on more than one factor was eliminated. This resulted in a questionnaire of 67 items making up six subscales. Subscales include Safe Base, Structure, Commitment, Reflective Education, Role Model and Formative Feedback. To establish internal reliability, Cronbach's alphas were calculated for each subscale and the total score: total score .98, Safe Base .97, Structure .87, Commitment .95, Reflective Education .93, Role Model .95, and Formative Feedback .93. Test-retest reliability for the total SRQ score was calculated at $r=.97$, $p<.0001$, two tailed. Construct validity of the SRQ was established by asking participants to complete several previously established measures of the supervision process. Total SRQ scores correlated positively with subscales from the Evaluation Process within Supervision Inventory (Lehrman-Waterman & Ladany, 2011) ($r's:$ .70-.81), the Working Alliance Inventory (Horvath & Greenberg, 1986) ($r's:$.86-.91), and the Revised Relationship Inventory (Schacht et al., 1988) ($r:$.86).

The SRM (Pearce et al., 2013) was designed to survey clinical supervisors regarding their perception of the supervisory relationship. This measure was developed based on a grounded theory study of supervisor perceptions of the supervisory relationship by Clohessy (2008). Based on this study, and follow up assessment by three experienced clinical instructors, 89 items

were developed that covered three main categories. Factor analysis was performed and indicated five factors; Safe Base, Supervisor Commitment, Trainee Contribution, External Influences, and Supervisor's Emotional Investment. Based on weak loadings, <.4, several items were removed. The final questionnaire had 51 items across the five subscales. To establish internal reliability, Cronbach's alphas were calculated for each of the five subscales and the total score; Overall .90, Safe Base .96, Supervisor's Commitment .79, Trainee Contribution .94, External Influences .71, Supervisor's Emotional Investment .78. Test-retest reliability was calculated on the SRM total score at $r=.94$, $p<.001$. Construct validity of the SRM was established by asking participants to complete several previously established surveys related to the supervisory relationship. Total SRM scores correlated positively with the Working Alliance Inventory (Horvath & Greenberg, 1986) ($r's: .86-.91$), Personal Reaction Scale-Revised (Holloway & Wampold, 1984) ($r's: .71-.77$) and the Supervisory Styles Inventory (Friedlander & Ward, 1984) ($r's: .21-.48$).

Procedures

This study is a quasi-experimental study following a nonequivalent groups posttest-only control group design using two cohorts of student clinicians/clinical supervisor dyads. The control group is student clinicians and supervisor dyads who participated in the Valley Speech & Language Clinic during the 2019 spring semester. The treatment group is student clinicians and supervisor dyads who participated in the Valley Speech & Language Clinic during the 2019 fall semester. Student clinicians and clinical supervisors in the control group completed a survey, the SRQ and SRM respectively, about their experience of the supervisory process at the end of the 2019 spring semester. Clinical supervisors in the experimental group received training on how to incorporate the CHAT into their interactions with student clinicians. Following the training, supervisors were encouraged to implement the CHAT in their supervision of students throughout

the semester. Approximately four weeks into the semester, supervisors requested a follow-up training, which was provided. Each of the two trainings was approximately an hour in length. At the end of the 2019 fall semester, student clinicians and clinical supervisors completed the respective surveys. Results from the spring and fall cohorts were be compared to determine the effect of the implementation of the CHAT on the collaborative nature of the supervisory relationship.

Pre-testing the dyads, prior to working together, seemed irrelevant as collaborative supervision relies on the supervisory relationship which develops over time. Therefore, posttest-only design using a control group was the most appropriate design to address the research questions in the context of the university clinic.

Each student worked with at least two supervisors and was asked to complete a survey for both dyads. Supervisors worked with between four and ten students and were asked to complete a survey for each student they worked with. The predicted n was SRQ and SRM scores for 54 supervisor/student clinician dyads, assuming a 90% response rate. The student participants were from a typical speech-language pathology graduate cohort which was selected by the department's admissions committee. Preliminary analysis established that this was a representative sample for the population. The supervisors for the control cohort and the experimental cohort were, for the most part, the same individuals. Two supervisors participated in the control semester but did not participate in the experimental semester. All four of the supervisors who participated in the experimental semester were also part of the control semester. In order to maintain anonymity, surveys did not ask for participant's names or identifying information. Thus it is not possible to identify or remove surveys that were completed by the two supervisors who only participated in the first semester of the study. The supervisors group

was representative of the population of SLP supervisors in age range of early 30's to middle 70's

and included both working and retired speech-language pathologists with a variety of clinical

backgrounds. These two sub-samples of the study are representative of the target population,

which is graduate level speech-language pathology student clinicians and clinical supervisors in

university based clinics. This minimizes the selection of subjects' threat to external validity.

Intervention

Supervisors received two 60-minute trainings on how to use the CHAT in their

interactions with student clinicians. The training included lecture, demonstration and discussion

to prepare supervisors to implement the CHAT. The first training began with a review of

Anderson's model for supervision and introduced the CHAT as a way to facilitate collaborative

supervision during the Transition Stage of the model. The training then provided information on

the development of the CHAT, studies supporting its effectiveness as a tool for developing

clinical skills and a thorough explanation of the CHAT Reference Chart. The second training

focused on specific ways and contexts in which the CHAT could be implemented at the Valley

Speech and Language Clinic specifically. Each supervisor was provided with a CHAT

Handbook and a laminated Reference Chart. Each student was provided two laminated copies of

the Reference Chart and instructed to include these in their therapy files. At the Valley Speech

and Language Clinic, student clinicians are required to keep a therapy file that contains daily

lesson plans, therapy logs and other daily documentation. This was determined to be an

appropriate place to store the Reference Sheet so that they would have direct access to it for both

formal and informal conferences with their supervisors.   Ongoing support for implementation

was provided throughout the fall 2019 semester in the form of verbal check-ins, email blasts to

the supervisors and access to the researcher should questions or concerns arise about implementation.

Data Analysis

One-Tailed Independent Samples *t*-Tests were conducted to determine if a significant difference increase in the perception of collaborative supervision existed between the control group (spring cohort) and the experimental group (fall cohort). This analysis employed an alpha level of .10 due to the exploratory nature of the study as well as the small sample size. This alpha level was chosen so as to increase the likelihood of finding even a small significant difference. This does increase the risk of a type 1 error, finding significance where none exists. But it will also protect against type II errors, not finding significance where indeed a difference does exist. As the first study of its kind, any significant findings will be explored with follow-up studies employing decreased alpha levels to substantiate such findings.

Multiple regression was to be used to determine the effect of prior experience working under supervision on the impact of CHAT utilization on the quality of collaboration during the supervisory process as perceived by the supervisee. As outlined by Baron and Kenny (1986), multiple regression can be used to test for presence of a moderating variable, which prior experience is hypothesized to be. The Multiple regression design was to be as follows: Factor A – strategy of current supervisor will contain two levels: traditional supervision strategies, implementation of the CHAT. Factor B – prior experience with supervisors will contain two levels; previous experience with supervisors, no previous experience with supervisors. The sequential multiple regression was to involve two blocks. The first block was factor A and factor B. The second block was the cross product of these two variables. Evidence of a moderating effect is determined by the statistical significance of the regression coefficient for the cross

product. Unfortunately, multiple regression analysis of this phenomena was impossible due to factors discussed in Chapter 4.

Assumptions and Limitations

One important assumption underlying this study is that collaborative supervision is preferable to other types of supervision in the context of training graduate student clinicians. Scholars from the fields of education, counseling and speech-language pathology have written about the importance of collaborative supervision (Anderson, 1988; Cogan, 1973; Ellis, 2010; Goldhammer, 1969; McCrea & Brasseur, 2003; Milne, Aylott, Fitzpatrick, & Ellis, 2008), but little empirical evidence exists to support collaborative supervision over any other type of supervision, at least not in the speech-language pathology literature. There is evidence to suggest that both student clinicians and clinical supervisors prefer collaborative supervision (Atick Fencel & Mead, 2017; Taliancich-Klinger & Cooperson, 2017) and that a positive supervisory relationship is predictive of positive outcomes in terms of the clinical development of the supervisee (Falender & Shafranske, 2014).

Another assumption is that traditional supervision strategies currently used by supervisors in the Valley Speech & Language Clinic are not facilitating collaborative supervision to the level that might be possible with the implementation of the CHAT. Collecting data on a control group addressed this assumption. Out of a possible 105 points on the Safe Base subscale, the student control group mean was 94.74 and the supervisor control group mean was 85.94. These means, while high, indicate that there is room for improvement.

A third assumption is that the participants will answer the survey questions truthfully. Since the survey will be anonymous, there is little risk to warrant the participants need to conceal their true perceptions.

An assumption that presented itself in the middle of the study was that the two groups of supervisors would be similar. In fact, at the outset, it was assumed that this group of people would remain constant across the two semesters. Unfortunately, two of the supervisors who participated in the spring semester were unable to return for the fall semester. Thus six supervisors participated in the spring and only four participated in the fall.

Finally, a more theoretical assumption relates to the framework of this study. The study is based on the assumption that Anderson's Continuum of Supervision is an effective and efficient model to structure clinical education design. More specifically, it is assumed that using a collaborative supervision style with graduate level SLP clinicians will lead to the third level of the model, independent supervision in a more efficient manner than more directive supervision.

Limitations of the study begin with the sample. Using convenience sampling, the sample consisted of supervisor/student clinician dyads from one university speech-language pathology clinic. This may limit the generalizability of findings to similar clinic facilities by introducing a characteristics of subjects threat to external validity, though the sample was not found to differ significantly from the target population for gender. In addition, the measures chosen, the SRQ and SRM, may present a risk of instrumentation threat to internal validity. These measures were designed for use in training student clinicians in the field of counseling. They have never been used in the context of speech-language pathology. But the operational definitions of the constructs as well as the roles of clinical supervisors and student clinicians are very similar between the two fields. In addition, the development of these measures took place in university clinic settings where the participant population is of similar demographics to the population of speech-language pathology graduate students. Therefore, this instrumentation threat to internal validity is considered minimal.

A third limitation is the lack of independence between the sample units. Sample units are the clinical supervisor/student clinician dyads. Each student worked with two supervisors and thus completed two surveys. Each clinical supervisor worked with 4-10 students and completed a survey for each student. This method resulted in an n=61 of independent dyads. However, each dyad consisted of a supervisor and a student who were involved in other dyads. This might lead to an increase in the Type 1 error rate as each data observation is not truly independent. Thus the variation across scores observed in the sample may underestimate the variation that would exist for the population, creating a smaller standard error and increased value of the test statistic. This increases the likelihood of rejecting the null hypothesis and associated Type I error rate.

The final limitation of the study is a possible lack of comparability between the two cohorts. The speech-language pathology graduate program enrolls new students in the fall semester. The students enter with varying clinical experience. Some have not yet worked directly with clients and therefore do not have experience working with supervisors. Others have either undergraduate clinical experience where they worked with supervisors or have worked in the field as speech-language pathology assistants under the supervision of speech-language pathologists. All members of the spring cohort will have had at least the fall semester of clinic experience in addition to any experience they obtained prior to enrollment. Thus, all of the spring semester students have clinical experience working with supervisors. Approximately 25% of the fall students will be participating in their first clinical experience. This may present a selection threat to internal validity. In order to address comparability of the two student clinician groups, and thus limit the selection threat, two variables were analyzed. Student clinicians were asked to indicate their undergraduate degree as Communication Sciences and Disorders (CSD) or

Non-Communication Sciences and Disorders (Non-CSD). They were also asked to indicate their level of clinical experience prior to enrolling in the program. These variables were analyzed using Pearson chi-squared tests to establish comparability of the two groups.

Several statistical analysis assumptions exist relative to the two analysis methods that will be utilized. Use of independent samples *t*-test assumes that the distributions of scores for the populations are normal, that the variances in each population are equal and that observations of individuals from the two groups are independent (McMillan & Schumacher, 2006). Use of multiple regression analysis assumes a linear relationship between dependent and independent variables, normally distributed errors and homoscedasticity which implies that "the variance of errors is not a function of the independent variables" (Keith, 2015, p. 188).

<div align="center">**Summary**</div>

The current study examined the effect of the implementation of the CHAT on the perceptions of student clinicians and clinical supervisors regarding the collaborative nature of the supervisory process. The CHAT is a hierarchical system which allows the supervisor and student clinician to compare the performance of the client with the level of support provided by the clinician. Using this system, the dyad is able to make clinical decisions collaboratively in order to advance the client in treatment.

This is a quantitative, quasi-experimental design utilizing both descriptive and inferential statistics to determine if a significant difference occurs between the control group of student clinician/supervisor dyads utilizing traditional supervisory methods and the experimental group of student clinician/supervisor dyads utilizing the CHAT.

CHAPTER 4: RESULTS

The purpose of this study was to examine the effectiveness of the CHAT in facilitating collaborative supervision. The CHAT (Duthie, 2008) was designed to provide student clinicians with a hierarchical matrix that could offer direction in determining appropriate clinical strategies in response to client performance. Previous research indicated positive results as measured by clinician perception of their own clinical skill development (Duthie & Brock, 2012) and supervisor perception of clinician improvement towards clinical competencies (Duthie & Robbins, 2013). Based on these results, it was hypothesized that the CHAT would be an effective strategy for facilitating the transition from direct-active supervision to collaborative supervision in the university clinic setting. The following research questions were addressed in this study:

1. When participating in an adult neurogenic communication disorders clinic, do graduate student clinicians whose supervisors utilize the Clinician's Hierarchy for Advancing Treatment (CHAT) in conferences perceive the supervisory process as more collaborative than graduate student clinicians whose supervisors do not utilize the CHAT in conferences?

2. Do university clinic supervisors in an adult neurogenic communication disorders clinic who utilize the CHAT in conferences perceive the supervisory process as more collaborative than supervisors who do not utilize the CHAT?

3. Does the impact of the CHAT utilization on the quality of collaboration as perceived by the student clinicians depend on the level of prior work experience under supervision?

The study followed a nonequivalent groups, posttest-only control group design using two cohorts of student clinicians/clinical supervisor dyads. Student clinicians and supervisors were surveyed following a clinical semester in which traditional supervision practices were utilized. The following semester the CHAT was implemented. The supervisors and the student clinicians from the cohort utilizing the CHAT were surveyed at the conclusion of the semester. Results of

the second semester survey were compared to the results from the first semester survey to determine the effectiveness of the CHAT at facilitating collaborative supervision.

This chapter will discuss three levels of data analysis. The first level is the preliminary analysis comparing the demographics of the sample to the population as well as comparing the demographics of the two cohorts to address the selection threat to internal validity. Reliability of the instrumentation is also demonstrated. The main analysis compares Safe Base Subscale scores from the surveys to answer the three research questions. Finally, additional item level analyses are presented.

<div align="center">**Preliminary Analysis**</div>

This study utilized a convenience sampling method as the researcher had direct access to two cohorts of graduate students participating in an on-campus clinical practicum. To ensure generalizability, this sample of graduate student clinicians was compared to the population of US American graduate students enrolled in speech-language pathology programs. The American Speech-Language Hearing Association (ASHA) provides demographic information on this population (CAPCSD & ASHA, 2018). Gender and race/ethnicity of the sample was compared to the population using one-tailed exact binomial proportions tests (Table 2).

Table 2

One-tailed Exact Binomial test to compare student clinician sample to population

n=31	Population[a]	Observed		Binomial test
		n	%	Exact sig. one tailed
Gender				
Male	4.48%	0	0	*p*=.253
Female	95.52%	30	100%	
Race/Ethnicity				
Caucasian	80.68%	16	51.6%	*p*<.001
Racial/Ethnic minority	17.63%	15	48.4%	

[a]Population data from Communication Sciences and Disorders (CSD) Education Survey National Aggregate Report: 2016-2017 Academic Year (CAPCSD & ASHA, 2018)

The sample proportion of females (100%) was not significantly different from the population proportion of females (95.52%) as indicated by an exact binomial *p*=.253(one-tailed). However the sample proportion of Caucasian students (51.6%) was significantly different that the population proportion of Caucasian students (80.68%) as indicated by an exact binomial *p*<.001(one-tailed). Thus the sample is representative of the population in terms of gender. The sample is significantly more diverse in terms of ethnicity than the population. This may represent a threat to external validity.

Initially, the study was designed to use the Chi Squared Goodness of Fit test to compare the sample to the population. However, this test requires expected counts of greater than five for each category. This is not possible with the population proportion of females greater than 95%. Thus, the exact binomial proportions test was used.

In order to ensure that the two cohorts were comparable and to rule out a selection threat to internal validity, two variables, undergraduate degree and clinical experience, were compared between the two cohorts using the Pearson chi-squared test (Table 3 and 4).

Table 3

Crosstabulation of Cohort and Undergraduate Degree

| | | | Cohort | | |
			NO CHAT (spring 2019)	CHAT (fall 2019)	Total
Undergrad	CSD or related	Count	21	20	41
		Expected Count	23.5	17.5	41.0
		% within Cohort	60.0%	76.9%	67.2%
	Unrelated	Count	14	6	20
		Expected Count	11.5	8.5	20.0
		% within Cohort	40.0%	23.1%	32.8%
Total		Count	35	26	61
		Expected Count	35.0	26.0	61.0
		% within Cohort	100.0%	100.0%	100.0%

Note. CSD refers to Communication Sciences and Disorders. χ^2 (1, N=61) = 1.939, p= .164

Table 4

Crosstabulation of Cohort and Previous Clinical Experience

			Cohort		
			NO CHAT (Spring 2019)	CHAT (Fall 2019)	Total
Clinical Experience	25 observation Hours	Count	12	10	22
		Expected Count	12.6	9.4	22.0
		% within Cohort	34.3%	38.5%	36.1%
	1-2 semesters of clinic	Count	17	12	29
		Expected Count	16.6	12.4	29.0
		% within Cohort	48.6%	46.2%	47.5%
	SLPA or Para	Count	4	3	7
		Expected Count	4.0	3.0	7.0
		% within Cohort	11.4%	11.5%	11.5%
	Certificated	Count	2	1	3
		Expected Count	1.7	1.3	3.0
		% within Cohort	5.7%	3.8%	4.9%
Total		Count	35	26	61
		Expected Count	35.0	26.0	61.0
		% within Cohort	100.0%	100.0%	100.0%

Note. SLPA refers to Speech-Language Pathology Assistant, Para refers to Paraprofessional, both of which are entry level support professionals in public schools.
χ^2 (1, N=61) = .196, p= .978

The cohorts did not differ significantly in terms of undergraduate degree as indicated by a

χ^2(1,N=61)=1.94, p=.164, or previous clinical experience as indicated by χ^2(3, N=61)=.196,

p=.978. Due to not meeting expected counts for the Chi Squared test (greater than or equal to 5)

for clinical experience, a follow up Chi Squared analysis was run combining the SLPA/Para and

Certificated groups χ^2(2,n=61)=.119, p=.942.   This did not change the conclusion. These

findings of the groups being similar in terms of undergraduate degree and previous clinical

experience provide increased confidence that findings of the main statistical analysis will be

attributable to the dependent variable, the implementation of the CHAT.

The student clinicians were surveyed with the (SRQ) (Palomo et al., 2010). The supervisors were surveyed with the (SRM) (Pearce et al., 2013). These surveys contain a subscale titled Safe Base Subscale. The items in this subscale directly address the construct of collaborative supervision. The Safe Base Subscale contains 15 items. Reliability analysis was conducted on subscale items for both the SRQ and the SRM. The Cronbach's alpha for the SRQ Safe Base Subscale was $\alpha=.957$ for 15 items. The Cronbach's alpha for the SRM Safe Base Subscale was $\alpha =.957$ for 15 items. These statistics indicate that both the SRQ Safe Base Subscale and the SRM Safe Base Subscale demonstrate good internal consistency.

Main Analysis

The study compared survey results from two cohorts of student clinicians and clinical supervisors in a university speech-language pathology clinic regarding their perceptions of collaborative supervision. Independent samples t-tests were conducted ($\alpha=.10$) to compare the Safe Base Subscale scores of students and supervisors from the spring cohort to those of the fall cohort (Table 5).

Table 5
Independent samples t-tests comparing Safe Base Subscale scores of spring and fall cohorts of students and supervisors.

		Spring No CHAT			Fall CHAT				
	Reported by	*n*	M	SD	*n*	M	SD	*t*	*p*
RQ 1	Students	35	94.74	14.10	26	95.31	12.65	.162	.436
RQ 2	Supervisors	33	85.94	10.10	28	87.86	4.40	.931	.165

Note. RQ 1 and RQ 2 refer to research question 1 and research question 2

While results of the *t*-test for student clinician perception are in the predicted direction, there is not a significant difference in Safe Base Subscale scores between the spring cohort (M=94.74, SD=14.10) and the fall cohort (M=95.30, SD=12.65) $t(59)=0.162$, $p=0.463$. Similarly, results for supervisor perceptions are in the predicted direction, but do not show a significant difference between supervisors who did not use the CHAT (M=85.94, SD=10.10) and supervisors who did use the CHAT (M=87.86, SD=4.40) $t(59)=.931$, $p=.165$. These results indicate that there is insufficient evidence to suggest significant differences in the perceptions of either student clinicians or supervisors in regards to collaborative supervision prior to and after the implementation of the CHAT in the university clinic.

This study was designed to also investigate the role of previous work experience in the student clinicians' perception of collaborative supervision. Based on work experience level indicated by the participants and the non-significant results of the analysis of Safe Base Subscale scores, it was impossible to analyze the role of previous work experience. The work experience variable contained three categories (no work experience, work experience without supervision, work experience with supervision). These categories were defined briefly on the survey. All but one of the 61 students responded as having work experience with supervision. Thus there was no differentiation between student work experiences identified by the survey. In addition, no significant findings were indicated by the analysis of the Safe Base Subscale scores. Due to these factors, Research Question 3 could not be answered.

Additional Analyses

Due to the non-significant findings of the main statistical analysis, follow up analyses were pursued. Items from the SRQ and SRM that are particularly salient to the construct of collaborative supervision were identified. Independent samples t-tests were run on each of these

items to determine if there were any item level differences between the two cohorts (Tables 6

and 7).

The following items from the SRQ were analyzed:

1. My supervisor was respectful of my views and ideas.
2. My supervisor and I were equal partners in supervision.
3. My supervisor had a collaborative approach in supervision.
9. The advice I received from my supervisor was prescriptive rather than collaborative.
33. My supervisor appeared interested in my development as a professional.

Table 6

Independent samples t-test on individual items from SRQ (students)

Item #	Spring No CHAT			Fall CHAT				
	n	M	SD	*n*	M	SD	*t*	*p*
1	35	6.49	.98	26	6.58	.86	.379	.353
2	35	5.91	1.60	26	6.15	1.43	.605	.274
3	35	6.20	1.11	26	6.31	1.16	.369	.351
9	35	5.86	1.46	26	5.65	1.77	-.492	.624
33	35	6.51	1.01	26	6.54	1.24	.084	.467

The t-test results on these items indicated insufficient evidence to suggest differences between

the two cohorts. This further confirms the findings of the main analysis that student perception

of supervision did not change when the CHAT was implemented.

The following items From the SRM were included in this analysis:

1. My trainee is open about any difficulties they are experiencing.
2. My trainee is reflective in supervision.
4. My trainee is open and honest in supervision.
32. My trainee takes appropriate responsibility for their work.

Table 7

Independent samples t-test on individual items from SRM (supervisors)

Item #	Spring No CHAT			Fall CHAT				
	n	M	SD	*n*	M	SD	*t*	*p*
1	33	6.33	1.16	28	6.68	.61	1.412	.082*
2	33	6.48	.76	28	6.46	.84	-.101	.920
4	33	6.45	1.12	28	6.86	.36	1.951	.029*
32	33	6.73	1.00	28	6.82	.61	.431	.334

*Note. *$p<.01$

The t-test results for these items indicated evidence to suggest a significant difference between the two cohorts on items 1. $t(59)= 1.412$, $p=.082$ and 4. $t(59)=1.951$, $p=.029$ prior to Bonferroni correction to rule out type 1 errors. The Bonferroni correction sets $\alpha=0.025$. Thus, neither item remains significant following the correction. However, the near significant levels are notable and may suggest that CHAT possibly encourages open and honest communication from the student clinician to the supervisor. Results for items 2 and 32 indicated insufficient evidence to suggest a difference between the two cohorts.

The additional, item level analyses suggests that while student perceptions of supervision did not change from cohort to the other, the perception of the supervisors may have. Item 1 of the SRM asks if the supervisor feels that the student is open in discussing their difficulties. Item 4 of the same survey again asks if the student is open and honest. Results of the t-test analysis seem to suggest that the supervisors felt that students in the cohort using the CHAT were more open and honest in supervisory meetings than their peers were when the CHAT was not used.

Summary

This chapter described the study's three levels of statistical analysis. Preliminary analysis established the representative nature of the sample in terms of gender and the lack of

significant difference between the two cohorts for the variables *undergraduate degree* and *prior clinical experience*. The main analysis addressed research questions 1 and 2 to determine whether or not the Safe Base Subscale scores differed significantly between the two cohorts. The *t*-Tests results indicated insufficient evidence to suggest a statistically significant difference. Additional analyses were performed at the item level to further investigate the effects of implementing the CHAT on perceptions of supervisors and student clinicians. Two items from this analysis were marginally significant. The two items asked supervisors to rate how open and honest their student clinician was in the supervisory process. These results suggest that supervisors felt that student clinicians were more open and honest when the CHAT was utilized in supervision.

CHAPTER 5: DISCUSSION

This study examined the efficacy of implementing a clinical instruction tool, the CHAT, in a university speech-language pathology clinic to facilitate collaborative clinical supervision. Two cohorts of student clinicians and supervisors were surveyed following a semester of participating in the clinic. The spring 2019 cohort did not utilize the CHAT. Supervisors for the fall 2019 semester were trained on the CHAT and committed to utilizing it in their supervision during the semester. Survey results were compared to determine if the perception of collaborative supervision increased with the implementation of the CHAT. This chapter summarizes the issue of collaborative supervision in speech-language pathology, discusses the findings of the statistical analysis and identifies limitations of the study. Implications of these findings and suggestions for future research are also presented.

Collaborative Supervision

Anderson's *Continuum of Supervision* (J. L. Anderson, 1988), the widely used model for clinical supervision in speech-language pathology, implores clinical supervisors to utilize a collaborative supervision style when working with student clinicians. A major component of this style of supervision, according to Anderson, is the supervisory conference. This is a collaborative meeting between the supervisor and student clinician to discuss the therapeutic process and plan for future therapy sessions. There are a few studies that indicate positive outcomes of the supervisory conference including facilitating clinical behaviors of student clinicians (Gillam et al., 1990), increasing student independence through self-analysis (Larson, 2007), and allowing for objective feedback from the supervisor (Ellis, 2010). However, several studies have also cited lack of collaboration and general ineffectiveness of the supervisory

conference (Brasseur, 1989; Shapiro & Anderson, 1989). Furthermore, in my experience as a

supervisor and clinic director in a university clinic, I have observed a reliance on directive

supervision.

The differences between directive and collaborative supervision have been discussed in

Chapters 1 and 2 of this dissertation. To summarize, directive supervision places the

responsibility for both the supervisory process and the clinical process on the supervisor. This

means the supervisor is responsible for the clinical decision making and directing the clinician on

how to provide the intervention. The collaborative supervision style, by contrast, involves a

shared responsibility for both processes. The student clinician is expected to be involved in the

clinical decision making and to be self-directed under the guidance of a supervisor for the

intervention delivered to the client. It becomes the student clinician's responsibility to approach

the supervisor when guidance is needed (J. L. Anderson, 1988; McCrea & Brasseur, 2003).

Anderson argued that it is the collaborative supervision style that promotes the clinical

development of the clinician and thus the supervisor should move the student clinician from the

first phase of supervision, in which directive supervision is appropriate, to the second phase, in

which collaborative supervision will help them develop their skills to a point where they are

independent clinical decision makers and able to self-supervise (J. L. Anderson, 1988). Graduate

training in speech-language pathology is approximately two years. Graduate students generally

enroll in clinical practicum in their second year. Thus, the time period to transition beginning

clinicians from directive supervision to independent is rather limited. It is important to begin

training clinical decision making and independence as quickly as possible. The practical

application of Anderson's model would then necessitate a short introduction period to practicum

in which directive supervision is used to orient the student clinician. Student clinicians and

supervisors should then move as quickly as possible to a more collaborative supervisory process to begin the process of transitioning the student to independent clinical decision making that will be required as the student enters the field. Essentially, to graduate independent clinicians, university training programs need to focus their limited clinical education time on collaborative supervision.

This is problematic because clinical supervisors in speech-language pathology often lack training (Beckley, 2017; Geller, 2002; Wright & Needham, 2016). In a 2014 study, only 31% of supervisors indicated that they had received training and 81% indicated that they desired more continuing education on supervision strategies (Fredrickson & Moore, 2014). This lack of training has resulted in supervisors relying on their own experience of being supervised as their primary source of information on supervision strategies and practices (Klick & Schmitt, 2010).

Training opportunities for supervisors is rapidly improving in the field. ASHA recently mandated supervision training for any SLP supervising student clinicians. However, it is my experience that training offerings do not discuss how to facilitate collaborative supervision. As a supervisor in the university clinic, I found students reluctant to step outside the comfort zone of directive supervision. They needed me to tell them what to do and how to do it. At conference time, much of the discussion revolved around evaluation of the student clinician's performance and resulting grades despite my efforts to steer the conversation towards more productive topics. My students entered these conferences nervous and were passive participants. I knew I needed them to assume more responsibility in both the supervision process and the clinical process, but I became frustrated with my inability to facilitate that transition.

As speech-language pathologists, we are tasked with formulating goals for our client's communication development or rehabilitation. Goals are developed for skills or behaviors that

clients are unable to demonstrate at the current time. The clinical process involves presenting the client with a stimulus and providing supports (cues, prompts, modeling and feedback) so that they can respond to that stimulus appropriately. Anderson (1988) suggests that we view the supervisory process as a mirror of the clinical process. In this, she argues that as the supervisor, we are responsible for facilitating the clinical development of our student clinicians, much as the speech-language pathologist is responsible for the communication development of our clients. Discovering this argument, I began to view my supervision and that of my colleagues in the clinic from a clinical prospective. What were we doing as clinicians that we were NOT doing as supervisors? It became apparent that as supervisors, we were not providing our student clinicians the supports (e.g., cues and prompts) they needed to progress from directive supervision to collaborative supervision. We were essentially expecting the student clinicians to move from one level of supervision to a much more complex level of supervision without proper supports.

Duthie developed the CHAT as a tool to help student clinicians understand clinical supports in relationship to client performance (Duthie, 2008). The CHAT is a hierarchical matrix of five levels. The first column describes client performance for each level. The second column provides examples of supports that a clinician would likely provide in order to facilitate the client's progress to higher levels of performance. Preliminary research indicated positive results in student clinician and supervisor perceptions of clinical development (Duthie & Brock, 2012; Duthie & Robbins, 2013). However, it had only been implemented in clinics serving children. I hypothesized that the CHAT levels might be the support that student clinicians working with adult clients in our neurogenic disorders clinic required in order to be active participants in collaborative supervision.

In order to measure the ability of the CHAT to facilitate collaborative supervision in our clinic, I decided to study both the student clinicians and the supervisors participating in the university clinic. This decision was based on the research that indicates the importance of both participants' active engagement in the supervisory process to maximize the clinical development of the student (J. L. Anderson, 1988; McAllister, 1997; McCrea & Brasseur, 2003). Few published, validated surveys targeting clinical supervision in speech-language pathology exist. But two surveys targeting the relationship between student clinician and supervisors in the field of counseling were particularly relevant to the research questions. Thus, the student clinicians were surveyed with the Supervisory Relationship Questionnaire (SRQ) (Palomo et al., 2010) and the supervisors were surveyed with the Supervisory Relationship Measure (SRM) (Pearce et al., 2013). These surveys each contained a subscale titled Safe Base Subscale, which questioned the participants perceptions of the collaborative nature of their relationship with either their supervisor (SRQ) or their student clinician (SRM).

Findings

Research Question 1

When participating in an adult neurogenic communication disorders clinic, do graduate student clinicians whose supervisors utilize the Clinician's Hierarchy for Advancing Treatment (CHAT) in conferences perceive the supervisory process as more collaborative than graduate student clinicians whose supervisors do not utilize the CHAT in conferences?

To answer research question 1, student clinicians were surveyed following their participation in a university speech-language pathology clinic. The control group of clinicians were the spring 2019 cohort whose supervisors utilized traditional supervision techniques. The experimental group as the fall 2019 cohort whose supervisors implemented the CHAT in their

supervision practice. An Independent-samples t-Test was conducted on the Safe Base Subscale scores from the SRQ. The results indicated insufficient evidence to suggest a significant difference between the Safe Base Subscale scores of the spring and fall cohorts. Thus, student clinicians did not perceive the supervisory process as more collaborative when the CHAT was utilized.

Research Question 2

Do university clinic supervisors in an adult neurogenic communication disorders clinic who utilize the CHAT in conferences perceive the supervisory process as more collaborative than supervisors who do not utilize the CHAT?

To answer research question 2, supervisors were surveyed following the spring 2019 and fall 2019 semesters. During the spring 2019 semester, supervisors utilized traditional supervision practices. Following that semester, they were trained on the CHAT and implemented the CHAT during the fall 2019 semester. An independent samples t-test was conducted on Safe Base Subscale scores from the SRM. The results indicated insufficient evidence to suggest a difference between Safe Base Subscale scored from the spring 2019 semester and the fall 2019 semester. Thus, supervisors did not perceive the supervisory process as more collaborative when the CHAT was implemented.

Research Question 3

Does the impact of the CHAT utilization on the quality of collaboration as perceived by the student clinicians depend on the level of prior work experience under supervision?

The student clinician participants were also surveyed about previous work experience. They were asked to choose one of the following work experience levels:

1. I have work experience in a job (or jobs) under the direction of a manager or supervisor who was responsible for my training and evaluating my performance. *(food service, retail, education, health care)*

2. I have work experience, but I did not work under a manager or supervisor who was responsible for my training and evaluating my performance. *(babysitting, delivery driver, on-line work).*

3. I don't have work experience.

It was hypothesized that previous work experience might moderate the perception of collaborative supervision. Unfortunately, this could not be examined because nearly all students indicated the same level of work experience, work under the direction of a supervisor.

Additional Analysis

Due to the non-significant findings of the first two t-tests, item level analysis was conducted to determine any significant differences between the two student cohorts and two supervisor groups on individual items particularly salient to collaborative supervision. None of the analysis of student data indicated any significant differences. Analysis of two items from the supervisors' survey results, while ultimately not significant, was notable. Items 1 and 4 from the SRM question the supervisor about the student clinician's ability to be open and honest in the supervisory process. Initially the results of the t-tests to compare these individual items were significant, indicating that supervisors felt students were able to be more open and honest when supervisors utilized the CHAT in supervision. However, following the Bonferroni correction to guard against type 1 errors, these results were not significant. Despite the non-significant findings, these results are notable as this study was exploratory in nature since implementation of the CHAT in this context has not previously been investigated.

Discussion of Findings

In analysis of the data, one issue became apparent right away. The spring 2019 participants, who did not utilize the CHAT, responded with high ratings for collaborative supervision. It is predicted that two factors may have influenced these control group results. First, it is possible that participants do not have a thorough understanding of supervision types. The study did not include explicit education to define the two types of supervision, directive and collaborative. Secondly, it may have been difficult for the spring 2019 participants to judge the collaborative nature of their supervision, or lack thereof, when they had not experienced collaborative supervision (as defined by Anderson) previously and had not been exposed to or explicitly taught about this style of supervision. It is predicted that the participants in both cohorts were largely satisfied with their experience of the supervisory process in the clinic. With a lack of understanding of the difference between supervision types, participants may have been rating their experience as positive in general, rather than as it related to specific supervision strategies. However, even as highly rated as collaboration was, survey scores from the first cohort did leave some room for a significant increase to occur. In other words, there was still room for improvement.

Another possible explanation of the lack of significant difference between the two cohorts could be a subtle difference in their levels of clinical experience. By the nature of the academic schedule at the university where the study took place, the control cohort, spring 2019, was in their second semester of participating in on-campus clinical assignments. Thus, all of the students in the control cohort had at least one semester of working with a supervisor prior to participating in the study. The experimental cohort, fall 2019, was in their first semester of clinic. Some students may have had clinical experience working under supervision in their

undergraduate program. But clinical experience is rare in undergraduate programs. For most of

the experimental cohort, their participation in the clinic and this study was their first experience

working under clinical supervision. It may be that as students become more experienced, the

supervisory process becomes more collaborative. If that is in fact true, then the control cohort

would have had an advantage over the experimental cohort in terms of collaboration because of

their previous clinical experience.

As the statistical analysis results were non-significant, the study did not show that

utilization of the CHAT facilitates collaborative supervision. However, results do have

implications for the practice of supervision in speech-language pathology. Student clinicians

generally rated the collaborative nature of supervisors as high. It is predicted that this may not

be an accurate measure of collaboration, but represent a general satisfaction with supervision in

general. This would imply that traditional methods are, at the very least, satisfactory to students.

Research indicates that the relationship between the supervisor and the supervisee has a

significant impact on the supervisory process and the supervisee's clinical development (Fencel

& Mead, 2017; Fredrickson & Moore, 2014; Ostergren, 2011). In the particular clinic where the

study took place, there is a culture of student-centered mentorship. The student to supervisor

ratio is 2:1, which is lower than the maximum allowed by ASHA (4:1) and that used by many

other universities (3:1). In addition, supervisors are compensated for an extra hour per week to

provide time to meet with students outside of clinic. This allows for constant interaction and

feedback. Feedback is provided in written form for every session. Often students receive at least

brief verbal feedback on a daily basis and supervisors are available to provide extended

conferences at the students' request. This level of feedback provision is consistent with what

scholars such as Cogan (1973), Anderson (1988) and McCrea and Brasseur (2003) indicate

should be provided. It is also consistent with the student desire for immediate feedback that has been shown in more recent research   (Carter et al., 2017; Fredrickson & Moore, 2014; Ho & Whitehill, 2009). Supervisors take pride in knowing their student clinicians and providing individualized instruction. Student clinicians, in turn, get to know their supervisors quite well as evidenced by how many of the clinical supervisors are recognized in graduation speeches each year! Perhaps fostering the relationship is more important that the supervision methods used. It may be that the transition from directive supervision to collaborative supervision occurs organically if and when the supervisory relationship is nurtured. It is also suggested that this level of interaction and feedback is likely viewed by student clinicians as a positive aspect of their experience and one that is indicative of collaborative supervision.

The statistical analysis resulted in one marginally significant finding that I believe is important to consider. The difference between the control cohort and the experimental cohort in terms of the supervisors' perception of openness and honesty of student clinicians was marginally significant prior to the Bonferroni adjustment. One of the key differences between directive supervision and collaborative supervision is the student clinician's participation in the process. Directive supervision is characterized by the student clinician being a passive participant. Collaborative supervision, by contrast, requires the student to be an active participant. Anderson (1988) and educational researchers before her stressed the importance of shared responsibility for creating meaning (Cogan, 1973; Goldhammer, 1969). For this to happen the student clinician must feel comfortable being open and honest with the supervisor. Both Anderson (1988) and McCrea and Brasseur (2003) discuss the importance of the supervisee providing feedback to the supervisor. This feedback is essential for shared creation of meaning that is important in collaborative supervision. Increased ratings on being open and honest may

also imply that student clinicians are engaged in more reflective practice with their supervisor.

Geller (2002) built her own model of clinical supervision in speech-language pathology, the

Reflexive Model of Supervision, specifically on the idea that the supervisory relationship is

important to cultivate in order to allow for shared reflective practice. In the field of counseling,

acknowledging and working through one's own affective reactions to the clinical process has

been shown to facilitate the learning process (Rardin, et al., 1988). McCarthy (2010) found that

when provided a self-assessment checklist, SLP student clinicians were more able to focus on

their own clinical skills and clinical development rather than on client behaviors as found in

previous research (Shapiro & Anderson, 1988). Providing students with an external and

objective tool by which to guide their reflection is consistent with what occurred in the current

study and what the CHAT was designed to do. The CHAT provides an external tool to compare

clinician supports with client performance, thus allowing the student to take an objective

perspective on their therapy and modify it in response to client needs.

In summary, the findings of the main analysis indicate high levels of collaboration

perceived prior to and after the implementation of the CHAT by both students and supervisors.

This may indicate that students and supervisors are, for the most part, satisfied with their

experience in the clinic where the study was conducted. In addition, it may be consistent with

previous research that indicates the quality of the supervisory relationship plays a significant role

in the clinical development of the student clinician. The findings of the additional analysis

suggest that students were more open and honest when the CHAT was utilized. The fact that

supervisors seemed to indicate that students in the second cohort were more open and honest

may indicate that when students are provided an external tool or support, they feel more

confident in objectively discussing their own opinions, feelings and experiences, thereby

providing the feedback to the supervisor that Anderson stressed. This external tool may also provide an objective way to view their own therapy delivery and thus allows for objective rather than subjective thoughts and discussions. In other words, using the CHAT allows the student to view their therapy as meeting or not meeting client needs rather than as good or bad.

Implications for Practice

The CHAT has been shown effective in developing clinical competencies (Duthie & Robbins, 2013) and in students' perception of their own clinical development (Duthie & Brock, 2012). The current study does not show evidence that the use of the CHAT facilitates collaborative supervision. Anderson's model suggests a sequence of planning, observing, analyzing and integrating (1988), which is based on research from a variety of fields and supervision contexts. In addition, more recent research has stressed the importance of the supervisory relationship. Thus supervisors should continue to utilize Anderson's methods while focusing efforts on cultivating the supervisory relationship on a foundation of trust and colleagueship. The CHAT is a good tool to implement as part of this process to help students discuss the therapeutic process in a more open and honest manner.

Recommendations for Future Research

This exploratory study was an attempt at establishing evidence for a tool for supervisors to use to facilitate collaborative supervision. The statistical analysis was inconclusive in determining if the CHAT was an effective tool for that purpose. There are a few possibilities that may have contributed to the findings of this study. First, the sample of this study was rather limited. Secondly, students and supervisors may not have a thorough understanding of supervision types. Finally, the survey tools used might not be the most effective way to measure

the effectiveness of the CHAT, or supervision methods in general, at facilitating collaborative supervision.

The sample size, n=61 student responses and n=61 supervisor responses was small and thus did not offer much statistical power. In addition, the sample was redundant. Each student completed two surveys, one survey for each supervisor they worked with. Each supervisor completed multiple surveys as they worked with multiple students. The student cohorts were comprised of different individuals, but the supervisors of the spring cohort were the same individuals as the fall cohort. All participants were participating in the same university clinic. Future studies should aim for larger sample sizes, include participants from multiple clinics and reduce the redundancy of the sample.

Participants were not provided significant instruction or training in the theory of supervision which would include the different types of supervision. It is possible that participants did not have a thorough understanding of the key terminology used in the study. While Anderson's *Continuum of Supervision* is briefly discussed in didactic courses in the program where the study took place, it is possible that student clinicians did not fully understood the terms *collaboration* (as it relates to supervision) and *collaborative supervision* and how these concepts fit into a continuum of supervision designed to promote clinical independence. As discussed in Chapter 3, supervisors feel that there is not enough training and that could be manifesting in the current study. Perhaps, they too, do not fully understand the terminology used in this study. It is predicted that participants perceive the concept of collaboration as positive and also perceived their experience with supervision in the clinic as positive, thus they responded to survey questions in a positive manner resulting in inflated ratings, particularly from the control cohort. Future studies should include specific and thorough instruction on supervision

theory and concepts so that participants are able to respond to inquiry of their experience in a more informed way.

The survey instruments used, SRQ (Palomo et al., 2010) and SRM (Pearce et al., 2013), are validated instruments designed specifically to target collaboration in the supervisory process. However, perhaps the experience of supervision is difficult to measure using such a survey. Collaboration and collaborative supervision are difficult constructs to define and quantify. Future studies should target multiple sources of data including student and client outcome data and qualitative data. Student outcome data would include proficiency ratings of professional competencies that many graduate programs use to evaluate students' clinical performance and progress. Client outcome data could include progress on goals and would speak to the ability of collaborative supervision to develop student clinical skills thereby increasing the effectiveness of the clinical process. Admittedly, there are countless variables in the clinical process which affect client outcomes that would be difficult to control for. Qualitative data should be collected from both student clinicians and supervisors on how they implemented the CHAT in their supervisory process and how that implementation affected their relationship and the process. An ethnography study analyzing video recorded supervisory conferences of this construct would be intriguing. Such a study might include detailed conversational analysis focus on talk time and function of utterances (initiations, responses, requests, directives, suggestions, etc) to determine if CHAT utilization results in more collaboration as characterized by increased student participation and responsibility transfer in the supervisory conference.

Future quantitative studies could rely on the SRM and SRQ as they are well developed measures with excellent statistical properties. They are developed for a field that uses a similar clinical supervision format and most of the questions are relevant to themes in the research on

supervision in the field of speech-language pathology. At the current time, no measures of this nature developed specifically for speech-language pathology were found. Ideally, survey instruments specifically designed to measure supervision constructs in speech-language pathology would be developed. Such tools would likely be based on Anderson's theoretical model, ASHA competencies and the growing literature base of research into speech-language pathology supervision. Thus they would be more accurate measures of supervision constructs in our field.

Conclusion

This study investigated the use of an external tool to help supervisors facilitate collaborative supervision. The recently developed CHAT has proven helpful and effective in two university pediatric speech-language pathology clinics as measured by student competencies and student perceptions. Anecdotal evidence from supervisors and students using the CHAT in university clinics has been overwhelmingly positive. It seems that the CHAT addresses many of the issues identified in prior research on clinical supervision in speech-language pathology, though this has not been empirically studied yet. One of these issues is the concept of collaborative supervision. As stated several times in this dissertation, collaborative supervision is valued and encouraged in the field. Yet supervisors do not feel adequately trained to provide it. It was hypothesized that the CHAT could provide an external support for both supervisors and supervisees in the facilitation of collaborative supervision.

Statistical analysis of survey responses from two cohorts of student clinicians and supervisors did not reveal significant results. Thus the question remains: Does a tool such as the CHAT help supervisor-supervisee dyads engage in a more collaborative supervision process? Additionally, item level analysis suggested that the CHAT helped students be more open and

honest with their supervisors. Beyond that, the current study indicates that student clinicians and supervisors felt positive about the level of collaboration both prior to and after the implementation of the CHAT.

In recent years, the field of speech-language pathology has enjoyed an increase in the amount of research focusing on supervision methods. ASHA's *Special Interest Group 11 – Supervision (SIG 11)* has provided a voice for clinical educators and supervisors. In January 2020, ASHA began requiring supervision training for any speech-language pathologist supervising student clinicians. All of these factors are helping us progress beyond 'what has always been done.' It is vitally important that supervisors move beyond the methods that they experienced as supervisees and seek knowledge and training in evidenced based practice just as they do in their clinical work. It is equally important that, as a field, we value innovative work and research into supervision practices as we do with clinical practice.

Jean Anderson provided the theory and model to establish a foundation for evidenced based clinical supervision practices in speech-language pathology. She taught the importance of thinking of supervision as an area of practice in speech-language pathology similar to the areas of clinical practice such as aphasia, childhood language disorders and fluency (and many others). ASHA requires supervised clinical practice as a major component of graduate training programs nearly equal in terms of academic units and time to that of didactic education. As supervisors, speech-language pathologists have a considerable responsibility to help our future colleagues develop their clinical skills. Clinical supervision is a skill set that must be developed just as clinical skill sets are developed.

While this study did not provide that concrete solution to our abstract problem of how to provide collaborative supervision, I hope the information presented here informs the supervision

practice and supervision research in our field. I hope it provides a foundation for the inquiry into

a specific aspect of clinical supervision as Jean Anderson did for the broad practice of

supervision. And finally, I hope it helps us supervisors be better at what we do to guide new

clinicians towards their goal of becoming practicing speech-language pathologists.

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APPENDIX A: INFORMED CONSENT

UNIVERSITY OF THE
PACIFIC

Research Title: Perception of supervisory relationship

Lead Researcher: Benjamin Reece

Faculty Advisor: Dr. Rachelle Hackett

RESEARCH DESCRIPTION: Your consent is being requested to voluntarily participate in a research study on the supervisory relationship between clinical supervisors and student clinicians in a university speech and language clinic. The purpose of the research is to describe and compare supervisors' and supervisees' perceptions of the supervisory relationship. You will be asked to complete an anonymous survey about the supervision you received this semester in the Pacific Speech & Hearing Clinic.

TIME INVOLVEMENT: Your participation will take approximately 15-20 minutes.

RISKS AND BENEFITS: The risks associated with this study are minimal, but could include anxiety associated with taking a survey about a previous experience. The benefit which may reasonably be expected to result from this study is that you will be helping to advance the knowledge of supervision strategies in the field of speech-language pathology. The results of this research study may be presented at scientific or professional meetings or published in scientific journals. Your decision whether or not to participate in this study will not affect your clinic grades, grades for any class or your status in the department of speech-language pathology or any other benefits to which you are entitled.

COMPENSATION: No compensation is being offered for participation.

PARTICIPANT'S RIGHTS: If you have read this form and have decided to participate in this research project, you understand that your participation is entirely voluntary and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to leave blank any questions you wish.

CONFIDENTIALITY: The survey is anonymous. The first portion of the survey aims to gather demographic information. Demographic information and responses to the supervisory relationship questionnaire will be collected, analyzed and stored separately. While it is impossible to guarantee confidentiality, efforts will be taken to guard against the loss of confidentiality. All completed surveys will be kept in a locked file cabinet and will only be accessible by the lead researcher and the dissertation advisor. No individual responses will be reported. The demographic survey will be for student clinicians only. Supervisors will not be asked to complete the demographic survey.

UNIVERSITY OF THE
PACIFIC

CONTACT INFORMATION:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact Benjamin Reece (209-946-3969 or breece@pacific.edu) or Dr. Rachelle Hackett, dissertation advisor (209-946-2678 or rhackett@pacific.edu)

Independent Contact: If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact Office of Research and Sponsored Programs to speak to someone independent of the research team at (209)-946-3903 or IRB@pacific.edu.

The extra copy of this signed and dated consent form is for you to keep.

Your signature below indicates that you have read and understand the information provided above, that you have been afforded the opportunity to ask, and have answered, any questions that you may have, that your participation is completely voluntary, that you understand that you may withdraw your consent and discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled, that you will receive a copy of this form, and that you are not waiving any legal claims, rights or remedies.

SIGNATURE _____ DATE _____

Research Study Participant (Print Name): _____

Researcher Who Obtained Consent (Print Name): _____

APPENDIX B: THE SUPERVISORY RELATIONSHIP QUESTIONAIRE

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THE SUPERVISORY RELATIONSHIP QUESTIONNAIRE (SRQ)
Developed by Marina Palomo (supervised by Helen Beinart)
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The following statements describe some of the ways a person may feel about his/her supervisor. To what extent do you agree or disagree with each of the following statements about your relationship with your supervisor? Please tick the column which matches your opinion most closely.	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
SAFE BASE SUBSCALE							
1. My Supervisor was respectful of my views and ideas	1	2	3	4	5	6	7
2. My supervisor and I were equal partners in supervision	1	2	3	4	5	6	7
3. My supervisor had a collaborative approach in supervision	1	2	3	4	5	6	7
4. I felt safe in my supervision sessions	1	2	3	4	5	6	7
5. My supervisor was non-judgemental in supervision	1	2	3	4	5	6	7
6. My supervisor treated me with respect	1	2	3	4	5	6	7
7. My supervisor was open-minded in supervision	1	2	3	4	5	6	7
8. Feedback on my performance from my supervisor felt like criticism	7	6	5	4	3	2	1
9.The advice I received from my supervisor was prescriptive rather than collaborative	7	6	5	4	3	2	1
10. I felt able to discuss my concerns with my supervisor openly	1	2	3	4	5	6	7
11. Supervision felt like an exchange of ideas	1	2	3	4	5	6	7
12. My supervisor gave feedback in a way that felt safe	1	2	3	4	5	6	7
13. My supervisor treated me like an adult	1	2	3	4	5	6	7
14. I was able to be open with my supervisor	1	2	3	4	5	6	7
15. I felt if I discussed my feelings openly with my supervisor, I would be negatively evaluated	7	6	5	4	3	2	1
Total Safe Base Subscale =							
STRUCTURE SUBSCALE							
16. My supervision sessions took place regularly	1	2	3	4	5	6	7
17. Supervision sessions were structured	1	2	3	4	5	6	7
18. My supervisor made sure that our supervision sessions were kept free from interruptions	1	2	3	4	5	6	7
19. Supervision sessions were regularly cut short by my supervisor	7	6	5	4	3	2	1
20. Supervision sessions were focused	1	2	3	4	5	6	7
21. My supervision sessions were disorganised	7	6	5	4	3	2	1
22. My supervision sessions were arranged in advance	1	2	3	4	5	6	7
23. My supervisor and I both drew up an agenda for supervision together	1	2	3	4	5	6	7
Total Structure Subscale =							
COMMITMENT SUBSCALE							
24. My supervisor was enthusiastic about supervising me	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
25. My supervisor appeared interested in supervising me	1	2	3	4	5	6	7
26. My supervisor appeared uninterested in me	7	6	5	4	3	2	1
27. My supervisor appeared interested in me as a person	1	2	3	4	5	6	7
28. My supervisor appeared to like supervising	1	2	3	4	5	6	7
29. I felt like a burden to my supervisor	7	6	5	4	3	2	1
30. My supervisor was approachable	1	2	3	4	5	6	7
31. My supervisor was available to me	1	2	3	4	5	6	7
32. My supervisor paid attention to my spoken feelings and anxieties	1	2	3	4	5	6	7
33. My supervisor appeared interested in my development as a professional	1	2	3	4	5	6	7
Total Commitment Subscale =							

REFLECTIVE EDUCATION SUBSCALE

	1	2	3	4	5	6	7
34. My supervisor drew from a number of theoretical models	1	2	3	4	5	6	7
35. My supervisor drew from a number of theoretical models flexibly	1	2	3	4	5	6	7
36. My supervisor gave me the opportunity to learn about a range of models	1	2	3	4	5	6	7
37. My supervisor encouraged me to reflect on my practice	1	2	3	4	5	6	7
38. My supervisor linked theory and clinical practice well	1	2	3	4	5	6	7
39. My supervisor paid close attention to the process of supervision	1	2	3	4	5	6	7
40. My supervisor acknowledged the power differential between supervisor and supervisee	1	2	3	4	5	6	7
41. My relationship with my supervisor allowed me to learn by experimenting with different therapeutic techniques	1	2	3	4	5	6	7
42. My supervisor paid attention to my unspoken feelings and anxieties	1	2	3	4	5	6	7
43. My supervisor facilitated interesting and informative discussions in supervision	1	2	3	4	5	6	7
44. I learnt a great deal from observing my supervisor	1	2	3	4	5	6	7
Total Reflective Education Subscale =							

ROLE MODEL SUBSCALE

	1	2	3	4	5	6	7
45. My supervisor was knowledgeable	1	2	3	4	5	6	7
46. My supervisor was an experienced clinician	1	2	3	4	5	6	7
47. I respected my supervisor's skills	1	2	3	4	5	6	7
48. My supervisor was knowledgeable about the organisational system in which they worked	1	2	3	4	5	6	7
49. Colleagues appeared to respect my supervisor's views	1	2	3	4	5	6	7
50. I respected my supervisor as a professional	1	2	3	4	5	6	7
51. My supervisor gave me practical support	1	2	3	4	5	6	7
52. I respected my supervisor as a clinician	1	2	3	4	5	6	7
53. My supervisor was respectful of clients	1	2	3	4	5	6	7
54. I respected my supervisor as a person	1	2	3	4	5	6	7
55. My supervisor appeared uninterested in his / her clients	7	6	5	4	3	2	1
56. My supervisor treated his / her colleagues with respect	1	2	3	4	5	6	7

FORMATIVE FEEDBACK SUBSCALE							
57. My supervisor gave me helpful negative feedback on my performance	1	2	3	4	5	6	7
58. My supervisor was able to balance negative feedback on my performance with praise	1	2	3	4	5	6	7
59. My supervisor gave me positive feedback on my performance	1	2	3	4	5	6	7
60. My supervisor's feedback on my performance was constructive	1	2	3	4	5	6	7
61. My supervisor paid attention to my level of competence	1	2	3	4	5	6	7
62. My supervisor helped me identify my own learning needs	1	2	3	4	5	6	7
63. My supervisor did not consider the impact of my previous skills and experience on my learning needs	7	6	5	4	3	2	1
64. My supervisor thought about my training needs	1	2	3	4	5	6	7
65. My supervisor gave me regular feedback on my performance	1	2	3	4	5	6	7
66. As my skills and confidence grew, my supervisor adapted supervision to take this into account	1	2	3	4	5	6	7
67. My supervisor tailored supervision to my level of competence	1	2	3	4	5	6	7
Total Formative Feedback Subscale =							

Scoring Key

Scored 1 (Strongly Disagree) to 7 (Strongly Agree)

Reverse Scoring
Scored 7 (Strongly Disagree) to 1 (Strongly Agree)

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Palomo, M., Beinart, H. & Cooper, M. (2010). Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists. British Journal of Clinical Psychology, 49, 131-149

APPENDIX C: THE SUPERVISORY RELATIONSHIP MEASURE

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The Supervisory Relationship Measure (SRM)
Developed by Nathalie Pearce
(Supervised by Dr Helen Beinart and Dr Myra Cooper)

The following statements describe some of the ways you may feel about your trainee and aspects of your supervisory relationship with them.

To what extent do you agree or disagree with each of the following statements about your relationship with your trainee?

Please tick the column which matches your opinion most closely.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
SAFE BASE SUBSCALE							
1. My trainee is open about any difficulties they are experiencing	1	2	3	4	5	6	7
2. My trainee is reflective in supervision	1	2	3	4	5	6	7
3. There is a good emotional atmosphere in supervision with my trainee	1	2	3	4	5	6	7
4. My trainee is open and honest in supervision	1	2	3	4	5	6	7
5. My trainee is willing to learn new things	1	2	3	4	5	6	7
6. My trainee is enthusiastic about being on placement with me	1	2	3	4	5	6	7
7. I like my trainee	1	2	3	4	5	6	7
8. My trainee is open to new experiences on placement	1	2	3	4	5	6	7
9. My trainee appears able to give me honest and open feedback	1	2	3	4	5	6	7
10. My trainee seems to like me	1	2	3	4	5	6	7
11. My trainee and I have a good professional relationship	1	2	3	4	5	6	7
12. Supervision provides a safe space for my trainee to learn	1	2	3	4	5	6	7
13. My trainee is open minded and curious	1	2	3	4	5	6	7
14. My trainee's style and my own style interact well	1	2	3	4	5	6	7
15. My trainee values my experiences and skills	1	2	3	4	5	6	7
Safe Base Subscale Score =							
SUPERVISOR COMMITMENT SUBSCALE							
16. I try to pitch things at the right level for my trainee	1	2	3	4	5	6	7
17. I keep my trainee's needs in mind	1	2	3	4	5	6	7

18. I try to ensure my trainee has adequate space and resources	1	2	3	4	5	6	7
19. I prepared for my trainee prior to their placement	1	2	3	4	5	6	7
20. I am available and accessible to my trainee	1	2	3	4	5	6	7
21. I look out for clinical work and other opportunities for my trainee	1	2	3	4	5	6	7
22. I attempt to facilitate reflection in supervision with my trainee	1	2	3	4	5	6	7
23. I set up regular supervision for my trainee	1	2	3	4	5	6	7
24. I give clear and honest feedback to my trainee	1	2	3	4	5	6	7
Supervisor Commitment Subscale Score =							
TRAINEE CONTRIBUTION SUBSCALE							
25. My trainee is able to hold an appropriate case load	1	2	3	4	5	6	7
26. My trainee appears to be doing the minimum required	7	6	5	4	3	2	1
27. My trainee works hard on placement	1	2	3	4	5	6	7
28. My trainee copes well with multiple demands	1	2	3	4	5	6	7
29. My trainee is considerate towards others in the service (e.g. secretaries)	1	2	3	4	5	6	7
30. My trainee shows good organisational skills	1	2	3	4	5	6	7
31. My trainee shows poor professional values	7	6	5	4	3	2	1
32. My trainee takes appropriate responsibility for their work	1	2	3	4	5	6	7
33. My trainee behaves appropriately in the team	1	2	3	4	5	6	7
34. My trainee produces good quality work	1	2	3	4	5	6	7
35. My trainee integrates well with others in the team	1	2	3	4	5	6	7
36. I am disappointed by my trainee's level of skill	7	6	5	4	3	2	1
37. I value having my trainee on placement	1	2	3	4	5	6	7
Trainee Contribution Subscale Score =							
EXTERNAL INFLUENCES SUBSCALE							
38. My trainee tries to use supervision as therapy	7	6	5	4	3	2	1
39. My trainee's past experiences of supervision interfere with our relationship	7	6	5	4	3	2	1
40. My trainee has other life stressors which distract them from their work	7	6	5	4	3	2	1
41. Things to do with the trainee's course interfere with placement	7	6	5	4	3	2	1
42. I have stressors in my life which make it difficult for me to focus on supervision	7	6	5	4	3	2	1
43. I sense that my trainee worries because I am evaluating them	7	6	5	4	3	2	1

44. Evaluation has a negative impact on our relationship	7	6	5	4	3	2	1
45. My trainee is too anxious to engage in supervision	7	6	5	4	3	2	1
External Influences Subscale Score =							
SUPERVISOR INVESTMENT SUBSCALE							
46. I am aware of what interests my trainee	1	2	3	4	5	6	7
47. I am open in my supervision with my trainee	1	2	3	4	5	6	7
48. I try to get to know my trainee	1	2	3	4	5	6	7
49. I am able to share my strengths and my weaknesses with my trainee	1	2	3	4	5	6	7
50. Supervision is a safe place for me to give negative feedback	1	2	3	4	5	6	7
51. I have a good idea about what my trainee wants to gain from this placement	1	2	3	4	5	6	7
Supervisor Investment Subscale Score =							
SRM TOTAL SCORE =							

SCORING INSTRUCTIONS

Subscale scores = Sum of individual item scores within the subscale

Total SRM score = Sum of five subscale scores

Note: Items 26, 31, 36, 38, 39, 40, 41, 42, 43, 44 and 45 are reverse scored and the item scores have already been adjusted in the above measure.
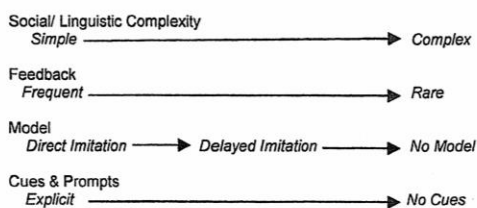
APPENDIX D: CHAT REFERENCE CHART

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CHAT REFERENCE CHART

Level	Client Ability	Clinician Support to Achieve Target Success	Parents/Teachers/Outside of Therapy
Level 5 Getting There!	Able to self-monitor for errors with minimal support in unstructured activities Client is consistently 80-100% accurate in the therapy setting	Provide very minimal or indirect cues Provide opportunities for production in unstructured activities and/or linguistically complex tasks Provide opportunities for self-monitoring in unstructured activities and outside of therapy setting	Client is able to self-monitor most of the time outside of therapy Parents/teachers report client is generally accurate in most circumstances Provide Level 4-Level 5 activities
Level 4 Carrying it Over	Able to use target in new or exciting games, discourse with some support Able to self-monitor for errors with moderate support in structured or familiar activities Target is consistently accurate in structured activities Target is inconsistent in unstructured activities	Provide occasional/subtle cues Generally not necessary to provide a model of the target Provide opportunities for production in increasingly distracting, less structured activities in therapy Use increasingly complex linguistic stimuli Provide opportunities for client to self-evaluate accuracy Reinforce evidence of self-monitoring & generalization Provide many opportunities for production outside of therapy room	Client is able to produce target consistently in structured activities outside of therapy, 10-20 minutes Client is able to self-monitor for specified periods of time outside of therapy Parents/teachers may comment that target is spontaneously produced more frequently Provide Level 3 activities for home/school
Level 3 Moving Along	Aware of target goal in structured speech/language activity May need more cues initially in session; fewer cues towards end of session May need review of previously acquired steps initially in session	Provide explicit/subtle cues Use of delayed imitation may be needed initially; fewer models needed later in session May initiate activity with drill review, then proceed with less structured activity Use of intermittent feedback is sufficient Promote self-monitoring of accuracy Increase linguistic complexity for productions	Client is able to practice Level 2 skills in specific, structured activities with parents, teachers Emerging spontaneous use of target in structured settings (therapy, homework) Generally does not produce target independently outside of therapy
Level 2 A Conscious Effort	Able to produce target with conscious effort Needs frequent cues to maintain accuracy Needs consistent models to maintain accuracy Can be accurate with slightly more complex stimuli	Provide moderate level of cues Use prompts frequently, but not consistently Use both direct imitation and delayed imitation Provide ample, explicit feedback Elicit target with simple stimuli; slightly more complex than in Level 1	Support client in identifying new target to parent/teacher Send home materials that promote *awareness* of new target May practice Level 1 skills for *short* periods of time
Level 1 Beginning a New Goal	Generally unaware of target Requires maximum, explicit cues to produce new target accurately Produces target correctly only in direct imitation Accurate with only very simple stimuli	Demonstrate/explain new target Provide explicit auditory/visual/tactile cues Provide models of target consistently Elicit target through direct imitation Provide consistent (100%), contingent feedback Provide explicit feedback for correct production Elicit target with linguistically simple stimuli	Clinician will discuss new target, approach to therapy Discuss initial steps to achieve long-term goal May send home products from activities to stimulate awareness of target

Continuum of Clinician Supports throughout the Intervention Process

Social/ Linguistic Complexity
Simple ————————————→ Complex

Feedback
Frequent ————————————→ Rare

Model
Direct Imitation ——→ Delayed Imitation ——→ No Model

Cues & Prompts
Explicit ————————————→ No Cues

Remember to adjust your techniques while your client remains "fairly" accurate

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