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DISCUSSION AND REVIEW PAPER

Ethical Considerations in Clinical Supervision: Components of Effective Clinical Supervision Across an Interprofessional Team

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Abstract

Within the practices of behavior analysis, education, occupational therapy, physiotherapy, speech-language pathology, and other health professions, professional practice focuses on each discipline's ethics, assessment, and treatment practices. However, maximizing outcomes for some clients is achieved only by combining the strengths of multiple disciplines to include all the competencies required for comprehensive client care. Thus, understanding and acquiring the core competencies for working collaboratively within an interprofessional framework is essential for working together effectively to garner the best outcomes for clients. Furthermore, the interprofessional team clinical supervisor has the added responsibility of ensuring optimal client outcomes while managing a diverse group of professionals, each with their own set of perspectives, clinical training, and evidence-based practices. In many areas of applied practice, the behavior analyst assumes the role of interprofessional clinical supervisor, which necessitates additional training in collaboration, supervision of allied professionals, and ethics. Successful interprofessional and collaborative working relationships require a number of key competencies and subcompetencies as outlined by the Interprofessional Education Collaborative, as well as knowledge of others' ethical and professional codes and/or guidelines for professional conduct, along with additional training and resources in the navigation and handling of ethical dilemmas among disparate team members. Working together and maintaining professional relationships within an interdisciplinary team are fraught with barriers and issues that may impede collaboration. The interprofessional team clinical supervisor requires various strategies, processes, and resources to enable them to navigate challenges and assist the team in working cohesively to achieve more positive client outcomes.

Keywords Collaboration · Competency · Ethics · Interdisciplinary teams · Interprofessional practice · Scope of practice

Within the practices of behavior analysis, education, occupational therapy, physiotherapy, speech-language pathology, and other health professions, professional practice (as well as academic training programs) often focuses on their single discipline's ethics, assessment, and treatment for their clients. However, maximizing outcomes for clients with complex needs can be best achieved by combining the strengths of multiple disciplines, which can expand the competencies required for comprehensive client care. Thus, understanding and acquiring the core competencies for working collaboratively within an interprofessional framework is essential for working together effectively to garner the best outcomes for this population. Furthermore, the interprofessional collaborative team clinical supervisor has the added responsibility of ensuring optimal client outcomes while managing a diverse group of professionals, each with their own set of perspectives, clinical training, and evidence-based practice.

The theoretical framework for health care collaboration was established and recognized internationally in the late 1980s. In the United Kingdom, The Centre for the Advancement of Interprofessional Education (CAIPE) was established in 1987 (The Centre for the Advancement of Interprofessional Education, 2020), and the *Journal for Interprofessional Care* was first published in 1986. In 1997, CAIPE offered one of the first definitions of *interprofessional education*: "occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care" (Vanclay, 1997, p. 19). Additionally, the Interprofessional Education for Collaborative Patient-Centred Practice initiative (Curran, 2004) supported

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that *collaboration* can be defined as "an interprofessional process of communication and decision making that enables the separate and shared knowledge and skills of health care providers to synergistically influence the client/patient care provided" (Way, Jones, & Busing, 2000, p. 3).

In 2001, a recommendation by the Institute of Medicine (IOM) Committee on Quality of Health Care in America was released in a report that detailed six aims for improvement in health care systems, as well as 10 guiding rules for patient–clinician relationships for the 21st century. With respect to interprofessional practice (IPP) and collaboration, Rule 10 defined *cooperation among clinicians* as follows: "Clinicians and institutions should actively collaborate and communicate to ensure an appropriate exchange of information and coordination of care" (IOM Committee on Quality of Health Care in America, 2001, p. 9). This rule asserted that health care professionals working within interprofessional teams can best communicate and address the complex and challenging needs of their patients/clients. Following this directive to utilize collaborative approaches in client care, a number of interprofessional definitions were adopted by various health care stakeholders, such as the dentistry, nursing, medicine, osteopathic medicine, pharmacy, and public health professions (Buring et al., 2009; Health Canada, 2007; Interprofessional Education Collaborative [IPEC] Expert Panel, 2011).

In Canada, the Interprofessional Education for Collaborative Patient-Centred Practice initiative was begun by Health Canada in 2003 (Curran, 2004). In an effort to increase consistency, the participants at the Interprofessional Education for Collaborative Patient-Centred Practice workshop in 2006 felt that there was an additional need to distinguish between the terms *collaborative practice*, *interprofessional collaboration* (IPC), and *interdisciplinary practice* and to highlight the defining distinction between the terms *interdependence* and *collaboration*. IPEC stipulated that IPP involved a dependent relationship (i.e., interdependence) among team members, as opposed to a collaborative relationship, which can be devoid of formal ties (IPEC Expert Panel, 2011). IPEC also noted that an interprofessional team required a more formal and accountable relationship for achieving the team's defined goals in contrast to multidisciplinary practice where each professional is responsible only for their own goal(s). The difference between a multidisciplinary approach and an interdisciplinary approach was further clarified by Choi and Pak (2006), who stated that "multidisciplinarity draws on knowledge from different disciplines but stays within their boundaries. Interdisciplinarity analyzes, synthesizes and harmonizes links between disciplines into a coordinated and coherent whole" (p. 351). The earlier definitions were also expanded by IPEC to involve individuals beyond the direct providers and to also include nonprofessionals (e.g., parents/caregivers). Additionally, the Interprofessional Education for Collaborative Patient-Centred Practice working group further refined the definition of *interprofessional teams* as "medical and health professionals from at least three different disciplines or professions, who share a common purpose and work together collaboratively and interdependently to serve a specific client population and achieve the team's and organization's goals and objectives" (Health Canada, 2007, section 2 common definitions). These refined definitions lead one to postulate that interdisciplinary or interprofessional teams deliver care in a more integrated manner, generating a positive impact on client outcomes (Kilgore & Langford, 2009).

Furthermore, a number of professionals and organizations have noted that interprofessional and collaborative working relationships require (a) a number of key competencies and subcompetencies as outlined by IPEC, (b) knowledge of one another's ethical and professional codes and/or guidelines for professional conduct, and (c) additional training and resources in the navigation and handling of ethical dilemmas among disparate team members (Brodhead & Higbee, 2012; Buring et al., 2009; Cox, 2012; Kelly & Tincani, 2013; LaFrance, Weiss, Kazemi, Gerenser, & Dobres, 2019; Paproski & Haverkamp, 2000; Sawatzky, 2019). Recently, there has been movement within most of the allied health sciences programs to reformulate their education and training to include interprofessional education within their course syllabi. Additionally, many of these programs also include activities and practicum opportunities for direct team-based training and experience in IPC. However, within the field of behavior analysis, interprofessional education and IPP knowledge, training requirements, and opportunities to acquire competency in these areas currently fall short, leaving the student, as well as the practicing behavior analyst, to acquire these competencies through direct experience prior to possessing the skill set needed to be successful. This contingency-shaped process, which can often be difficult and unsuccessful, may decrease the likelihood that future IPC opportunities would be welcomed. Therefore, it is imperative that behavior analysts, as well as the academic institutions training the next generation of behavior analysts, begin to access and develop interprofessional education curricula and applied practice opportunities to increase competency in this area. Specific tools and activities to increase competencies in IPP and IPC will be discussed in more depth later in this article.

Why Is IPP Important to Behavior Analysts?

Behavior analysts are well trained to address the clinical assessment and treatment of socially significant behaviors in many of their clients. However, clients may have complex comorbid conditions that fall outside the behavior analyst's scope of practice and/or scope of competency. Cox (2012) noted that the individual with complex needs requires the attention of multiple disciplines in order to meet their needs. However, in reality, the complexity and logistics of working

within a multidisciplinary setting (i.e., all professionals working concurrently toward their own goals and staying within their own scope) or within an interdisciplinary setting (i.e., all professionals working toward a common synthesized goal, which may be beyond each individual's scope) can negatively impact the client's progress due to a number of constraints, such as time, resources, collaborative competencies of the individual team members, and so forth. Nonetheless, the move to work more collaboratively within interdisciplinary or interprofessional teams has advanced due to calls by parents, professionals, and academic training programs to consider a more comprehensive and holistic view of the treatment/care pathway. Thus, IPP seems to be a viable consideration, as team members from different disciplines work collaboratively to develop and select appropriate targets for the client by drawing on each team member's specific strengths. Therefore, an interprofessional team will draw from team members' full scopes of practice and individual competencies to best meet the *whole* of the client's needs.

What Core Competencies and Additional Training Are Required?

There are critical competencies required to practice interprofessionally. The IOM (Greiner & Knebel, 2003) identified five core competencies that build upon each profession's discipline-specific competencies. The five core competencies are as follows:

1. *Provide client-centred care* by listening, respecting, and caring about clients' preferences, wants, and needs to foster a collaborative decision-making process for treatment and management.
2. *Work in interdisciplinary team*s to integrate members' knowledge, skills, and perceptions with that of the client to ensure that the client receives continuous and reliable treatment.
3. *Employ evidence-based practic*e by integrating the most up-to-date empirically supported treatment recommendations with the full scope of practice and competency of the interdisciplinary team for optimal outcomes.
4. *Apply quality improvement* through the development of processes that include data collection and analysis in order to adhere to data-based decision-making principles.
5. *Utilize informatics* to communicate and manage the knowledge gathered throughout the processes to mitigate error and support all decisions for the client.

Additionally, in 2011, four behavior-based IPP objectives that address collaborative or interprofessional competency domains were identified by IPEC and link back to the original five core competencies. These four new IPP objectives were deemed to be foundational for all professions in order to work effectively within and between professions (i.e., with clients/students, families, and communities). These new behavior-based IPP competencies are as follows:

1. **values/ethics:** Work together with mutual respect and shared values.
2. **roles/responsibilities:** Share acknowledgment of each participating team member's roles and abilities.
3. **interprofessional communication:** Communicate in a responsible manner that supports a team approach.
4. **teams/teamwork:** Apply relationship-building values and the principles of team dynamics.

These core behavior-based competencies were subsequently integrated under the single domain of IPC, which included the four core competencies, as well as a number of specific subcompetencies for each core area. The subcompetencies are more prescriptive to guide the development of an individual's skill set in order to facilitate effective collaboration and teamwork.

Concurrently, the Canadian Interprofessional Health Collaborative (CIHC) redeveloped IPEC's IPC domain to become the National Interprofessional Competency Framework (CIHC, 2010). This framework reworked the previous structure of the four core behavior-based competencies listed previously and restructured them to integrate the knowledge, skills, attitudes, behaviors, and values required to shape "the judgments essential for interprofessional collaborative practice" (CIHC, 2010). The six competency domains under the National Interprofessional Competency Framework can be seen in Figure 1 and consist of (a) interprofessional communication, (b) patient/client/family/community-centred care, (c) role clarification, (d) team functioning, (e) collaborative leadership, and (f) interprofessional conflict resolution.

Figure 1 Note: Depiction of the structure of the interprofessional collaboration competency domains and highlights additional factors that influence how the competency framework may be applied across varying settings and contexts. Reprinted from *A National Interprofessional Competency Framework* (p. 11) by CIHC, 2010. Copyright 2010 by Her Majesty the Queen in Right of Canada. Reprinted with permission.

The competency framework is an overarching model that delineates the necessary component skills and the integration and interaction of each competency leading to IPC as the outcome. The ability of each of the interprofessional team members to acquire and utilize this integrated set of competencies, within and across various contexts (e.g., different settings, different team members, different clients, different goals), is the measure of their level of competence in collaborative practice.

Several recent articles within the field of behavior analysis can help guide the practitioner who wishes to expand their

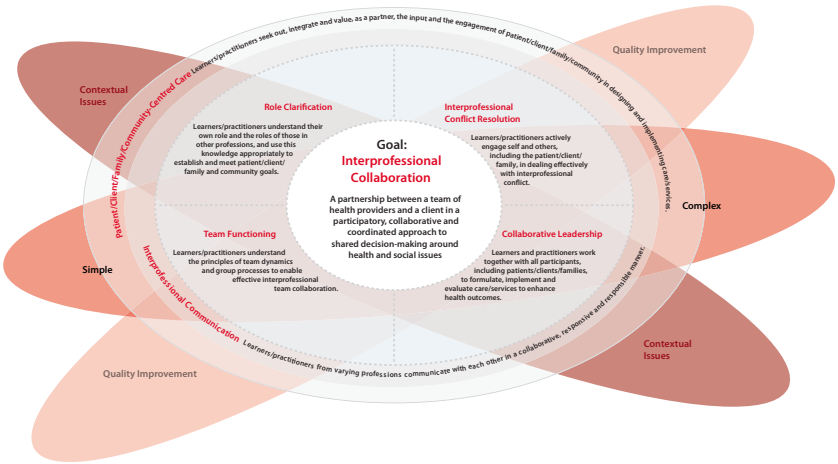

Fig. 1 Interprofessional Collaboration Competency Domain.

competencies in interprofessional collaborative practice. Some of the works examine critical competencies such as ethical behavior in practice (IPP objective: values/ethics; Brodhead & Higbee, 2012; Paproski & Haverkamp, 2000), increasing the behavior analyst's understanding of other professionals' scopes of practice (IPP objective: roles/responsibilities; LaFrance et al., 2019), strengthening the therapeutic relationship and consideration of cultural diversity (IPP objective: interprofessional communication; Beaulieu et al., 2019; LeBlanc, Taylor, & Marchese, 2020), and developing team and teamwork competencies (IPP objective: teams/teamwork; Brodhead, Quigley, & Wilczynski, 2018). The application of these various competencies within and across various contexts will continue to be challenging without additional steps and planning. This expansion of competencies requires the same rigor as defined by the Behavior Analyst Certification Board (BACB, 2020) in a recent publication regarding respecialization in a new practice area of applied behavior analysis. These steps include, but are not limited to, (a) a review of relevant research in IPP and IPC; (b) identification of pertinent associations, agencies, universities, and professionals with a scope of practice and competency in IPP/IPC; (c) self-assessment to determine baseline skills with respect to the identified core competency domains, as well as additional factors (see Figure 1); and (d) access to or development of a training program to acquire the necessary IPP and IPC skills (BACB, 2020; Brodhead et al., 2018). Table 1 lists sources of information that may be useful in guiding the practitioner who wishes to expand their competencies in interprofessional collaboration.

The Role of the Clinical Supervisor on an Interprofessional Team

The interprofessional team clinical supervisor has the added responsibility of ensuring optimal client outcomes while managing a diverse group of professionals, each with their own set of perspectives, clinical training, and evidence-based practices that may differ from those of the interprofessional team clinical supervisor. In many settings (e.g., interdisciplinary private practices, school districts, residential homes/facilities), the behavior analyst assumes the role of interprofessional clinical supervisor. To attain the designation of a clinical supervisor, the behavior analyst requires additional training in collaboration, supervision of allied professionals, and ethics (BACB, 2014). The clinical supervisor must be competent in leading a team comprised of different and diverse professionals, each with their discipline-specific educational requirements and entry-to-practice criteria, professional practice guidelines, and ethical codes. Moreover, along with the differing scopes of practice of each of the team members, these clinicians also bring diverse and sometimes opposing theoretical frameworks and perspectives and often an implicit bias for/against the other disciplines as relevant or necessary for the treatment of the client.

Because it is the role of the interprofessional collaborative team's clinical supervisor to bring these disparate team members together to form an integrated and equal team membership with a unified voice for optimal outcomes for the client, the clinical supervisor requires additional information and training in order to effectively shape the skills and competencies of the team members. Paproski and Haverkamp (2000) outlined six common threats to building and running an effective interprofessional collaborative team that may inform and help prepare the clinical supervisor for the specific needs within their team, within the specific setting/context, or both. The following sections will outline considerations for interprofessional practice preparation and additional resources and training that may be required for a more cohesive team.

Client Protection

The clinical supervisor should understand the legal and regulatory requirements as well as any specific agency requirements for obtaining informed, written consent necessary for

Table 1 Interprofessional Education and Interprofessional Collaboration Resources

Resource	Description	Links
American Interprofessional Health Collaborative (AIHC)	AIHC transcends boundaries to transform learning, policies, practices, and scholarship toward an improved system of health and wellness for individual patients, communities, and populations. It believes educating those entrusted with the health of individuals, communities, and populations to value and respect one another's unique expertise and skills and to work together are fundamental to care that is effective, safe, high quality, and efficient in terms of cost, resources, and time.	https://aihc-us.org/
Canadian Interprofessional Health Collaborative (CIHC)	The CIHC promotes collaboration in health and education.	http://www.cihc-cpis.com/
The Centre for the Advancement of Interprofessional Education (CAIPE)	CAIPE is a UK-based charity with international outreach whose members (individuals, service users, students, and corporate organizations) work together to promote and develop the health and wellbeing of individuals, families, and communities through interprofessional education, collaborative practice, and related research facilitating the development of a workforce fit for purpose.	https://www.caipe.org/
Interprofessional Education Collaborative (IPEC)	IPEC is a collaborative to promote and encourage constituent efforts that would advance substantive interprofessional learning experiences to help prepare future health professionals for enhanced team-based care of patients and improved population health outcomes.	https://www.ipecollaborative.org
National Academies of Practice (NAP)	NAP is a nonprofit organization founded in 1981 to advise U.S. governmental bodies on the American health care system. Distinguished practitioners and scholars are elected by their peers from multiple different health professions to join the only interprofessional group of health care practitioners and scholars dedicated to supporting affordable, accessible, coordinated, quality health care for all.	https://www.napractice.org/
National Center for Interprofessional Practice and Education	The National Center is charged with providing the leadership, evidence, and resources needed to guide the US on interprofessional education and collaborative practice. In that pursuit, the National Center for Interprofessional Practice and Education aims to challenge tradition and create a deeply connected, integrated learning system that will transform education and care together.	https://nexusipe.org/
National Collaborative for Improving the Learning Environment (NCICLE)	The National Collaborative for Improving the Learning Environment provides a forum for organizations committed to improving the educational experience and patient care outcomes within clinical learning environments. NCICLE seeks to simultaneously improve the quality of learning and patient care within clinical learning environments through shared learning and collaborative practice among its member organizations.	https://ncicle.org/

all team members, prior to sharing any information. This threat is reduced if the team members are all employees of the same agency. Often, however, interprofessional collaborative teams are comprised of professionals from outside the clinical supervisor's workplace. In this case, a thorough knowledge of the requirements to ensure client protection for each clinician's workplace—as well as the local and state jurisprudence with respect to the sharing of information, records requirements, and personal health information—would be necessary.

Variation in Training and Professionalism

There will be a range of training and knowledge among the interprofessional team members. This may impact various activities, such as the use of evidence-based practices, theoretical frameworks, and client communication skills, along with practices around informed consent; appropriate collection, use, storage, and disposal of personal health information; and other practices that ensure a consistent and required standard of care. Brodhead et al. (2018) raised important points regarding the current training and scope of competence of newly credentialed behavior analysts as compared to other professionals' competencies which may be acquired and strengthened during field-based experiences and defined mentorship periods post credential.

Time Constraints

There will be many logistical challenges the clinical supervisor must be prepared for, such as the coordination of meetings and the time required for communication among team members. These challenges may arise due to funding and resource constraints within each person's practice. The clinical supervisor may wish to examine time-saving measures such as the use of videoconferencing platforms rather than in-person meetings, where face-to-face interactions can still occur and information can be easily shared among team members without the need for travel or arranging meeting rooms and other administrative resources.

Motivation/Reluctance

Existing tensions and historically negative experiences among professions may contribute to a reluctance to collaborate. These biases often stem from feelings of infringement and existing stereotypes regarding the roles, responsibilities, and abilities required for the particular client or within a particular setting. McDonald, Jayasuriya, & Harris, (2012) also found that having primary and community-based health services delivered by different organizations (i.e., between private- and public-sector providers) and serving on interprofessional collaborative teams together added another layer of complexity to interprofessional relationships. The behavior-analytic clinical supervisor is well trained to effect change in the motivation of and collaboration among team members through the application of behavior-analytic principles.

Lack of Knowledge and Awareness

Professional experience, confidence, and competence may vary greatly within the team. Some team members may possess neither the training nor the experience to know when or how to collaborate. They may not be fluent in soliciting information from their clients. Beaulieu et al. (2019), LeBlanc et al., (2020), and Roberts, Lindsey, and Limon (2019) offered suggestions for enhancing relationships with caregivers, understanding cultural diversity with respect to the client and their family, and developing a practice of compassionate care within the therapeutic relationship with caregivers. Team members may also struggle to discriminate when they are practicing outside their scope, thus impacting their ability to identify the need to refer out. They may also lack experience in initiating referrals as well as exhibiting a lack of knowledge of the various referral professions. Furthermore, some team members may not have developed a network of local and/or collegial referral sources. Brodhead et al. (2018) proposed a new model, the Competence and Confidence Checklist, for the evaluation of one's own level of competence so that steps can be taken to facilitate the development of the required skills. This self-evaluation tool may assist the team members as a starting point for evaluating their own scope of competence specifically when faced with new practices such as identifying when they are practicing outside of their scope, when it is appropriate to initiate a referral, and whom to refer to. The tool may also serve to further highlight the skills necessary for an interprofessional collaborative work experience.

Lack of Coordination and Case Management

There are many teams where an individual neither is appointed nor self-identifies as the clinical supervisor. In these cases, there is a lack of case management, coordination, interprofessional collaborative training, and individual and/or team coaching. Subsequently, this often results in a lack of cohesion and effectiveness within the team, which negatively impacts the outcomes for the client. Ultimately, the role of the interprofessional clinical supervisor is one that encompasses assessor/evaluator, counselor, decision maker, mentor, administrator, and advocate for the team members and more importantly for the client through the promotion of client-centred, goal-oriented discussions.

With requisite training in the core competencies and subcompetencies of IPC, the behavior analyst as clinical supervisor seems most apropos, as they are the expert in the

study of human behavior. It is the behavior analyst as clinical supervisor who can effectively shape their team members through the application of behavior analysis. To assist the clinical supervisor in shaping the individuals on the team into a well-functioning and cohesive body, there are a number of resources, processes, and activities that they can employ. First, an assessment of team members' strengths and weaknesses should be completed in order to determine priorities and goals for subsequent training, coaching, and mentoring activities. Utilization of a behavioral-systems approach or analysis can be useful in structuring this assessment of needs.

Behavioral-Systems Approach/Analysis

A behavioral-systems approach is rooted in empirically supported strategies and follows a conceptual analysis to data-driven treatment. This approach applies the science of behavior analysis and the science of systems analysis to human performance within organizations. A behavioral-systems analysis is an approach within organizational behavior management that draws on basic and applied research in human behavior, as well as research within the areas of performance management and systems analysis. Thus, this approach combines behavior analysis with systems analysis in the following ways:

- *Behavior analysis* is the study of the behavior of *individuals* (e.g., the team members), where the behavior under examination is a product of each person's interaction with their environment (e.g., physical environment, social environment, genetic environment) and the history of that interaction.
- *Systems analysis* is the study of the operation of complex systems, such as organizations—or in this case, the *interprofessional team*—that focuses on the interaction between the parts of the team (i.e., the interaction among the team members, as well as the interaction between the team and the client and context/environment) and how they interact toward a common purpose whereby the function of one part affects the behavior/functioning of the other parts.

A behavioral-systems approach to performance improvement can be characterized by the analysis of multiple levels of the organization (a.k.a. the "interprofessional team") through the implementation of a set of specific tools/activities in order to facilitate the process of (a) gathering and sharing information, (b) identifying goals, (c) identifying problems, and (d) developing solutions (Diener, McGee, & Miguel, 2009).

The primary goal of a behavioral-systems approach is to create a balance in the team as a whole so that individual team members' skill sets are strengthened for some or maintained (if already optimal) for others, in order to create a cohesive and high-performing team, functioning as a unit, which would then facilitate the best outcomes for the client. This process is depicted in Figure 2, which shows the application of a behavioral-systems approach and the resulting desired equilibrium between low and high performers on the IPC team and the subsequent effect on the outcomes for the client.

There are many examples of this type of approach to improve systems, and ultimately outcomes, which may be familiar to many, such as health and safety systems (e.g., Workplace Hazardous Materials Information System training), compensation programs, safety protocols for hazardous

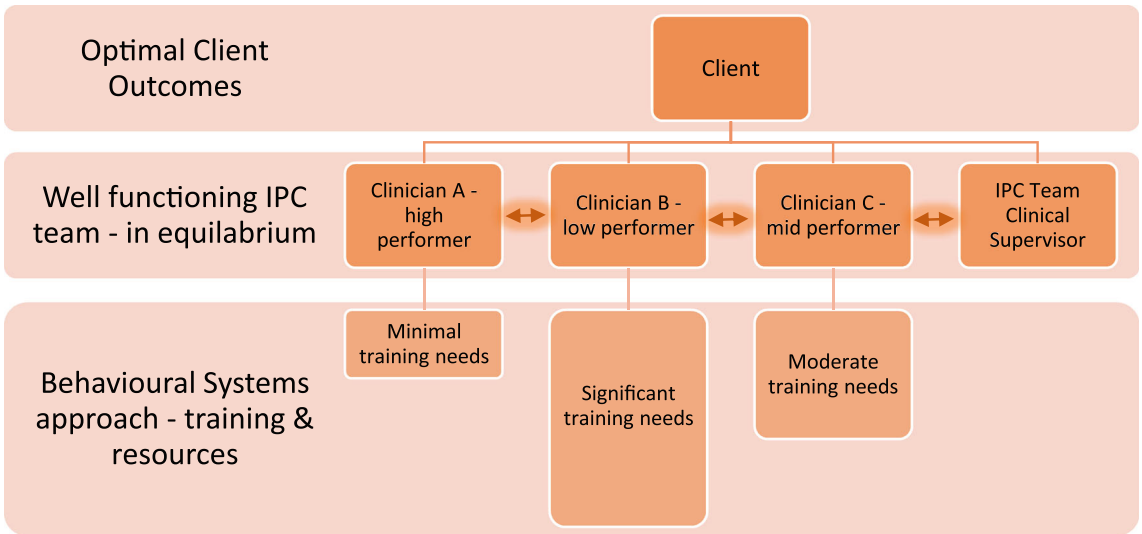

Fig. 2 Interaction Between Quality of Performance of IPC Members as a Result of the Application of the Behavioral-Skills Approach on Client Outcomes.

jobs, scheduling models, and so on. When initially engaging in a behavioral-systems approach for the analysis and shaping of systems and behaviors for interprofessional teams, the motto of "start small and go slow" is encouraged so that some successes can be realized (i.e., contingent reinforcement) and modifications can be made within each organization as required through this data-based decision-making process (Buring et al., 2009).

Thus, the primary goal of a behavioral-systems analysis is to facilitate the necessary changes by systematically meeting the identified objectives through the careful application of behavior analysis. In turn, this would enhance and optimize the functioning of the team and, by extension, the goals and outcomes derived from the interprofessional team for the client's benefit. This needs-based process involves both individual- and team-based components and includes the following: (a) the assessment of individual team members' acquisition of IPC core competencies (which includes the subcompetencies under each of the four main areas); (b) the identification of the training needs of the individual members; (c) the implementation of an individualized training program to meet those needs; and, finally, (d) an evaluation of the effectiveness of the designed training program.

Thus, the clinical supervisor of the interprofessional team first begins by conducting an assessment of the IPC team members' needs vis-à-vis their acquisition of the IPC competencies, including the subcompetencies under each core area. The subcompetencies function as both an assessment tool and a guide for the development of an individual's training needs and the overall team's training needs in order to facilitate effective collaboration and teamwork. One may follow either framework of interprofessional competency—IPEC's IPC domain framework (IPEC, 2011) or CIHC's National Interprofessional Competency Framework (CIHC, 2010)—in order to determine the skills to be assessed and tracked during the behavioral-systems analysis process.

There are a number of tools available for assessing interprofessional competencies. These can be found in Table 2 and include the Assessment of Interprofessional Team Collaboration Scale (AITCS; Orchard, King, Khalili, & Bezzina, 2012); the Assessment of Interprofessional Team Collaboration Scale II (AITCS-II; Orchard, Pederson, Read, Mahler, & Laschinger, 2018); the Interprofessional Collaborative Competencies Attainment Survey (ICCAS; Archibald et al., 2014; Schmitz et al., 2016); the Interprofessional Collaborator Assessment Rubric (ICAR; Curran et al., 2011); the IPEC Competency Self-Assessment Tool, Version 3 (Lockeman, Dow, & Randell, 2019; Roberts et al., 2019); and the University of Virginia's ASPIRE model (Brashers, Haizlip, & Owen, 2020).

Although teamwork is emphasized as part of IPP, each team member is ultimately responsible for their own scope of competence in treating the client. Brodhead et al. (2018) defined *scope of competence* as "the range of professional activities of the individual practitioner that are performed at a level that is deemed proficient" (p. 425). Working within an IPC team along with the application of the behavioral-systems analysis process can improve an individual's *team skills* and *collaborative performance* through the use of the self-assessment tools, direct coaching, and constructive feedback delivered by the interprofessional team clinical supervisor. These assessment tools can also function as the curriculum for the training program to improve practice and skills across the IPC domains. Even though a behavioral-systems approach and guidance from the clinical supervisor can improve competencies, constant self-evaluation and self-reflection are required by each member in order to identify areas that may require continued mentorship and training.

Following the assessment of individual and team needs via the structured checklists and tools discussed previously, the clinical supervisor should address any remaining areas of potential confusion or conflict (Paproski & Haverkamp, 2000). These additional areas can serve as a basis for the ground rules for the IPC team. The following topical areas are among the most common elements to address.

Scope of Practice

Team members must be given an opportunity to clearly discuss their own scope of practice, as well as the scopes of practice of their teammates. Where scopes of practice within the team overlap (e.g., behavior analysts and speech-language pathologists, occupational therapists and speech-language pathologists), there should be a well-documented delineation of responsibilities as they pertain to the current client's needs. Having open and respectful dialogue, using language that is easily understood by all practitioners (i.e., colloquial English), clearly defining technical terms when necessary, and accepting both the similarities and the differences in team members' scopes of practice are critical to a well-functioning team (LaFrance et al., 2019; Paproski & Haverkamp, 2000).

Decision-Making Protocols

Shared decision making does not mean that everything must be decided unanimously. Decisions may be made by one or more team members or by team consensus. What is important is that each member of the team, including the client, has an appropriate opportunity to influence the decision (i.e., the treatment plan).

Responsibility Versus Accountability

The responsibility and accountability for decisions should be clearly specified and understood by all members of the team. The main difference between responsibility and accountability

Table 2 Interprofessional Collaboration Assessment Tools

Assessment tool	Description	Links
Assessment of Interprofessional Team Collaboration Scale (AITCS; Orchard et al., 2012)	A 47-item self-assessment tool utilizing a 5-point Likert scale that is divided into 4 subscales: partnership, cooperation, coordination, and shared decision making.	"Assessment of Interprofessional Team Collaboration Scale: Development and Testing of the Instrument": https://pubmed.ncbi.nlm.nih.gov/22447712/ AITCS (complete assessment tool): http://swostroke.ca/wp-content/uploads/2015/12/AITCS-May-09.pdf
Assessment of Interprofessional Team Collaboration Scale II (AITCS-II; Orchard et al., 2018)	A 23-item self-assessment tool for practitioners with 3 subscales: partnership, cooperation, and coordination.	"Assessment of Interprofessional Team Collaboration Scale (AITCS): Further Testing and Instrument Revision": https://pubmed.ncbi.nlm.nih.gov/29517613/
Interprofessional Collaborative Competencies Attainment Survey (ICCAS; Archibald, Trumpower, MacDonald et al., 2014; Schmitz et al., 2016)	A self-assessment survey based on the competencies named in the CIHC's National Interprofessional Competency Framework.	http://nexusipe-resource-exchange.s3.amazonaws.com/Schmitz%20et%20al%20Replication%20Study%20of%20the%20ICCAS.pdf
Interprofessional Collaborator Assessment Rubric (ICAR; Curran et al., 2011)	A competency-based assessment tool that may be used for a pretest or posttest assessment of interprofessional collaborator competencies.	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.920.6545&rep=rep1&type=pdf
IPEC Competency Self-Assessment Tool, Version 3 (Lockeman et al., 2019; Roberts et al., 2019)	A self-report measure to facilitate competency-based assessment (originally a 42-item measure constructed on the 4 domains defined by IPEC but since refined to a 19-item scale).	https://www.tandfonline.com/doi/abs/10.1080/13561820.2019.1699037
The ASPIRE model, University of Virginia (Brashers et al., 2020)	An approach created by mapping the IPEC competencies to 3 curricular content areas: practical tools, leadership, and relational factors.	https://www.tandfonline.com/doi/full/10.1080/13561820.2019.1624513
The ASPIRE Model: Grounding the IPEC Core Competencies for Interprofessional Collaborative Practice within a Foundational Framework (Owen et al., n.d.)	A PowerPoint presentation explaining the development of the ASPIRE model.	"The ASPIRE Model: Grounding the IPEC Core Competencies for Interprofessional Collaborative Practice Within a Foundational Framework": http://www.cabvibanff.org/uploads/4/6/9/5/4695394/john_owen__valentina_brashers__abstract__085.pdf

Note. A compilation of various interprofessional collaboration assessment tools, self-assessment tools, and supporting resources.

is that responsibility can be shared among all team members, whereas accountability cannot. It is within the clinical supervisor's role to be accountable for decisions. This means being not only responsible but also ultimately answerable for the actions of shared team decisions.

Communication

Effective and efficient communication within the team, with the client, and across teams is required and is facilitated by the clinical supervisor. This requirement should also be supported through clear documentation (i.e., clinical records of any communication among team members with respect to the client) with the standards set by the profession with the most stringent requirement for record keeping and charting.

Ethical and Professional Conduct

Each team member has a responsibility to the other members to operate according to their ethical and professional guidelines. Each member of the team should also confirm that the others have adequate liability protection to ensure that all members are protected with respect to group versus individual practice decisions.

Common Biases

The clinical supervisor should provide information and/or advice about possible common biases, including those regarding race, primary spoken language, gender, sexual orientation, education, and employment status and/or level of functioning with respect to the other team members and to the client. Additional training, discussion, and rules may need to explicitly address any cultural differences within the team, as well as respect the client's and their family's wishes in terms of their own culture (Beaulieu et al., 2019).

Legislative Requirements for Confidentiality

The clinical supervisor should also review the specific legislative requirements for client confidentiality and ensure that the team will meet these requirements as they relate to personal health information, which will be dependent on the work environment (e.g., hospital, school district, community agency, pediatric/youth/adult population) and geographic location. Specific regulations, laws, and professional codes may also impact the team's decisions with respect to client confidentiality.

A skilled and competent clinical supervisor, who serves as the case manager, case coordinator, and chairperson of the IPC team, will positively impact individual team members to facilitate their competency in IPC practice and also the team as a whole by increasing the team's cohesiveness for the client's benefit. However, even with the best laid groundwork (i.e., through effective interprofessional education and IPC team training which results in a solid footing for the team), collaborative decision making can be fraught with conflict. Consequently, the interprofessional clinical supervisor requires additional skills to expertly handle any problems that may arise. They should possess additional knowledge, training, and experience in the application of ethics, problem solving, and conflict resolution and be familiar with various decision-making frameworks.

Ethical Issues and Problem Solving Within Interprofessional Teams

Working together and maintaining professional relationships within an interdisciplinary team is fraught with barriers and issues that often impede collaboration. Thus, successful clinical outcomes from a collaborative team approach are dependent on the strategies and processes utilized by the clinical supervisor and IPC team during times of ethical disagreement or periods of conflict. There are a number of tools that may assist the team by providing a pathway to the resolution of common ethical dilemmas or points of disagreement.

Evidence-Based Practice and Empirically Supported Treatments

There are a number of areas where the IPC team members may find themselves in conflict. Discussion among team members about evidence-based practice and the use of empirically supported treatments often results in conflict. Even though all regulated, licensed, and credentialed professionals must adhere to the commitment to use evidence-based practices that require the use of empirically supported treatments of the highest quality available, there is great variation among the professions as to the definition of empirically supported treatment, as well as the definition of evidence-based practice. The use of decision trees and checklists for determining levels of evidence, as well as determining what is considered *evidence* by the different disciplines represented, is recommended. The systematic application of these types of processes removes the emotion and power struggle inherent in discussing differing standards and relegates the decision to clear responses to set criteria.

Brodhead (2015) offered a decision-making model that may be useful when the clinical supervisor is confronted with the recommendation for a novel, unfamiliar, or nonempirically supported practice by a team member. These types of practice recommendations should not be readily dismissed by the other team members, as there may be merit in further evaluating the recommendation specific to the

client, the service setting, or any constraints imposed (e.g., funding, family wishes). Further, Brodhead pointed out that questioning others' practices may lead to an erosion of the collaborative nature of the team and potentially decrease the likelihood that the team will function with a unified voice in the future. Brodhead's (2015) Checklist for Analyzing Proposed Treatments was specifically designed to assist the behavior analyst in evaluating nonbehavioral treatments by examining specific factors that may shed light on any possible deleterious effects on the client. Additionally, the problem-solving pathway and the proposed treatment analysis checklist may also be a helpful framework for evaluating novel, unfamiliar, or nonempirically supported treatment recommendations. This framework allows the IPC team to learn more about the proposed treatment, identify whether client safety is at risk, gather and review evidence for the proposed treatment from a variety of sources (i.e., outside each member's own discipline), and answer specific questions in order to determine whether the suggestion should be given further consideration or whether the possible negative effects of the proposed practice would render it unsuitable for the client at this time.

Data-Based Decision Making

Whereas Brodhead's (2015) model evaluates a proposed single treatment, Newhouse-Oisten, Peck, Conway, and Frieder's (2017) decision tree specifically examines intervention compatibility, as well as the use of empirically supported treatments. Newhouse-Oisten et al. (2017) suggested that within each discipline, the professional is bound to a code of conduct that ensures client safety at the fore (i.e., do no harm). Further, they offer that in IPC, "this means striving for the most appropriate and effective combination of treatment," including withstanding the review of peers and the members of the IPC team (Newhouse-Oisten et al., 2017, p. 148). The components of their decision tree include (a) *universal strategies* (there is a system of regular communication among all team members), (b) *intervention changes* (any and all intervention changes need to be communicated fully to all team members so that everyone understands the purpose of the intervention change and any possible side effects, both positive and negative) and the empirical support for the intervention/treatment, (c) *monitoring the intervention* (all interventions must be monitored, together with results presented as data and graphs for visual inspection, so that any treatment changes are based on the data presented to the group), and (d) *determining compatibility with other interventions* (the IPC team must determine goal compatibility, as well as intervention methodologies). Thus, the intervention changes (from the data collected post intervention change) are classified as evidence based and compatible, evidence based and incompatible, not evidence based and compatible, or not evidence based and incompatible.

The Newhouse-Oisten et al. (2017) decision-making framework allows the IPC team to consider the multiple goals and multiple treatments that often co-occur or are recommended for individuals with complex disorders/presentations. Inclusion of the elements of the evidence-based practice process, which includes data collection, data analysis, and data-based decision making, is of paramount importance in this model. Moreover, consideration of the client's and/or the family's values or wishes is also captured within this type of evaluative process, which further elevates the client/family as central to the IPC team.

Ethical Guidelines

Ethical conflicts often arise when IPC teams are engaged in discussions involving clinical practice that takes into consideration client/family values and wishes. Simply stated, ethics are guided by one's culture, values, and context. Within many IPC teams, there are a variety of professionals, each representing specific cultural experiences and histories, with inherent values and biases (Hughes, Catagnus, Brodhead, Quigley, & Field, 2016). It is not unreasonable, then, to predict that ethical dilemmas will occur simply because of the multicultural nature of the team, the differing codes of ethics for each profession, and the possible different values and beliefs of the team members, as well as the client and their family. Rosenberg and Schwartz (2018) noted that ethical dilemmas can occur in (a) situations where the context of the ethical dilemma seems to argue against the rules, (b) situations where two or more rules conflict, and (c) situations where cultural considerations seem to suggest a different course.

The authors also espoused that ethical decision making should follow a process of systematically evaluating the ethical dilemma and considering each team member's professional ethical guidelines, as well as other factors that might influence the decision (e.g., the context/setting, the client's/family's values/beliefs), rather than following a written set of rules that could not apply to everyone nor every situation. Within their model, Rosenberg and Schwartz (2018) suggested following sequential steps that provide the framework for the decision process: (a) identify the ethical dilemma; (b) brainstorm possible solutions given the various professional ethical codes; (c) evaluate the potential solutions with respect to the client, family preferences, and your relationship with all parties involved; (d) identify an acceptable solution; (e) implement the solution and document the steps taken; and (f) evaluate the outcome of the process.

Ethical dilemmas continue to be a significant challenge for professionals working collaboratively. Many individuals

attempt to apply rigid rules in order to navigate ethical gray areas. The application of rigid, black-and-white rules in order to lessen or prevent ethical issues often results in clients' dissatisfaction, as well as feelings of resentment or contempt within multidisciplinary work environments where professionals are treated differently due to their ethical codes. The antithesis of the application of rigid rules is a fluid process, such as the one described previously, where the issue is examined from a number of lenses and the possible solutions are deliberated prior to arriving at a suitable response that takes into account the contributing factors.

The implementation of these various tools may mitigate friction among team members and lead to increased dialogue and a willingness to engage in fruitful discussions within the IPC team. These common ethical dilemmas and points of disagreement then become opportunities to increase the behavior-based IPP competencies for each member.

Summary

Behavior analysts today often find themselves working within interdisciplinary settings such as schools, hospitals, long-term care facilities, acute rehab facilities, and early intervention programs. Working together effectively, as interdisciplinary services, requires specialized skill sets that are increasingly included in interprofessional education academic training programs for speech-language pathology, occupational therapy, medicine, nursing, physiotherapy, psychology, and social work. However, many behavior analysts working today struggle with developing collaborative professional relationships and require guidance, coaching, and mentoring to acquire the skills for success within this model of service delivery.

IPC is required in order to maximize outcomes for some clients, as the optimal outcomes are achieved only by combining the strengths of multiple disciplines in order to include all the competencies required for comprehensive client care. The National Interprofessional Competency Framework (CIHC 2010) provides the competencies required in order to effectively practice within these interprofessional collaborative teams. The IPC team also includes a clinical supervisor who chairs the team and is accountable for all decisions and activities that the team undertakes. The IPC team clinical supervisor requires a scope of competency in IPP and IPC. To effect change within the IPC team members, the clinical supervisor can be guided by using a behavioral-systems approach to evaluate, plan, and implement a training program to meet the needs of the team members. Furthermore, the IPC clinical supervisor requires additional skills beyond those of the team members in order to navigate conflict, professional disagreements, and the ethical dilemmas that often arise. A variety of checklists, decision trees, and decision-making processes and required components for a well-functioning and cohesive team are provided for the clinical supervisor to ensure optimal outcomes for the client.

Behavior analysts are well positioned to function as clinical supervisors on IPC teams due to their ability to analyze and shape behaviors, collect meaningful data in order to make data-based decisions, and critically evaluate empirical literature. However, gaining competency in collaborative skill repertoires, along with an openness to self-reflection and an acceptance of the inclusion of other professionals with their differing philosophical viewpoints, is required in order to increase the acceptance of the behavior analyst as not only part of the IPC team but also the person who would meet the criteria for the clinical supervisor's role on the team. Moreover, interprofessional education and training are not found within current academic programs for training future behavior analysts, nor are they available for upskilling or respecialization for currently practicing behavior analysts. Behavior analysts must strive for a seat at the table in interprofessional education and IPP if they are to succeed in further advancing the field and being accepted as equals among their allied health colleagues.

Data Availability Not applicable.

Compliance with Ethical Standards

Conflicts of interest The author has no conflicts of interest to disclose.

Code availability Not applicable.

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