

Assessment of Interprofessional Team Collaboration Scale (AITCS): Development and Testing of the Instrument

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Introduction: Many health professionals believe they practice collaboratively. Providing insight into their actual level of collaboration requires a means to assess practice within health settings. This chapter reports on the development, testing, and refinement process for the Assessment of Interprofessional Team Collaboration Scale (AITCS). There is a paucity of literature and measurement tools addressing interprofessional collaborative team performance and the nature of effective teamwork processes and patient roles within collaborative teams. These gaps limit our knowledge about how health care teams form and function. Instruments are therefore needed to assess collaborative relationships.

Methods: The AITCS, with its 47 items within 4 subscales (partnership, cooperation, coordination, and shared decision making) and assessed on a 5-point Likert scale, was administered to a total of 125 practitioners from 7 health care teams practicing within a variety of settings, in 2 provinces in Canada.

Results: Principal components and factor analysis of data resulted in 37 items loading onto 3 factors, explaining 61.02% of the variance. The internal consistency estimates for reliability of each subscale ranged from 0.80 to 0.97, with an overall reliability of 0.98. Thus, the AITCS is a reliable and valid instrument.

Discussion: The psychometric analysis of this instrument supports its value in measuring collaboration within teams and when patients are included as team members. The AITCS can be applied to continuing professional education interventions to determine change over time. It has limitations to the Canadian context and within the settings where participants practiced. Further test and retest reliability and longitudinal study application is needed.

Key Words: collaboration, partnership, cooperation, coordination, instrument testing, evaluation, patient role, team practice, AITCS

Introduction

Encouraging practitioners to work together more cooperatively is seen as a means to address patient safety issues, which are frequently attributed to poor interprofessional (IP) communications.¹ Although governments such as that of the

United Kingdom have legislated involvement of patients in all aspects of their care processes, professional reluctance (ostensibly due to concerns about patients' abilities to understand discussions or anxieties) limits their inclusion. Even when teams report being collaborative in practice, the absence of validated instruments has made it challenging for organizations to objectively measure collaboration. The purpose of this chapter is to report on the development of such an instrument.

Conceptual Framework Guiding Instrument Development

Interprofessional collaborative practice (IPCP) is defined as "a partnership between a team of health professionals and a client in a participatory, collaborative and coordinated approach to shared decision-making around health and social issues."^{2(pX)} A guiding influence for this definition was a conceptual framework identifying 3 barriers to collaborative practice²: *organizational structuralism* (administrative

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organization and decision-making processes that reinforce hierarchical decision making and lack of support for shared decision-making models); *power relationships* (ability to exert pressure on another, which interferes with the inclusion of all team members' input into patient care discussions), and *role socialization* (development of behaviors and attitudes deemed necessary to fit into a cultural group). The effect of these barriers on team members is often to create a sense of disempowerment among health professionals (HPs) and clients. The power imbalance between physicians and other HPs, due in part to professional socialization patterns, can lead to a lack of shared decision making and the exclusion of patients from the planning, implementation, and evaluation of their own health care.³⁻⁵

Overcoming these barriers involves *role clarification* (gaining an understanding of all roles assumed by each member of a group and their knowledge in exercising these roles), *role valuing* (showing respect for another on the basis of their knowledge and contribution to a group), creating *trusting relationships* that lead to *shared decision making*, and *power sharing* (a willingness to facilitate joint sharing of power within a group regardless of educational or professional preparation).² This is accomplished through a 4-phase change process creating the environment for an IPC culture.²

Although a great deal of interprofessional research over the past decade has focused on educating future health care practitioners (HCPs), only recently has attention turned to continuing education.⁶ To effect change among practicing HCPs: (a) practitioners need a better understanding of what "interprofessional collaboration" means and how it is practiced; (b) organizations need to support change toward collaborative practice including provision of continuing education;⁷⁻¹² and (c) patients need to be involved in their own health care. Therefore, both HCPs and organizations need a means to assess current practice and monitor the impact of continuing education interventions in supporting a shift to IPCP.⁸⁻¹¹

Existing Measures of Collaboration

Researchers studying health care team collaboration have adapted existing instruments not specifically developed for assessing IP teams. Baggs and Schmidt's Collaboration and Satisfaction About Care Decisions (CSACD) measure was initially developed to measure physician/nurse collaboration in intensive care units and assess power imbalances between team members related to their planning, communication, shared responsibility, cooperation, and coordination.¹³ The CSACD has been applied in different settings with reported strong validity. However, Henneman et al critiqued the ability of the CSACD's single item constructs to determine the presence of "collaboration."¹⁴ A second instrument, the Team Collaboration Index,¹⁵ is reported to assess individual

performance on 3 dimensions—team context, interdependence, and growth and development—but fails to measure overall team performance within organizations.

Instruments addressing team practice more broadly also have significant limitations. Heinemann's Attitudes Toward Health Care Teams instrument¹⁶ is designed to measure HCPs' preference for working in teams. However, it contains only 2 scales—quality of care/process and physician centrality—and fails to assess actual teamwork. Another measure of teamwork, the Jefferson Survey of Attitudes Toward Physician-Nurse Collaboration, has 4 subscales (teamwork, caring as opposed to curing, nurse's autonomy, and physician's dominance) but is limited in its assessment of collaborative elements among team members.¹⁷ Temkin-Greener et al's¹⁸ Interdisciplinary Team Performance Survey (ITPS) is reported to measure team process and predictors of team performance: leadership, coordination, communication, conflict management, team cohesion and team effectiveness. It addresses some components of collaboration but focuses on team meetings within institutional settings, rather than providing broader perspectives of team functioning.

Of the instruments identified, none focus on the multiple elements comprising collaboration and few have been psychometrically validated. Most focus on team effectiveness without attention to the evolutionary process underlying health care team practice in institutional settings¹⁹ or individual performance assessment at organizational levels.²⁰ There is also an absence of research focusing on the role of patients within collaborative teams. Hence, instruments allowing teams to assess collaborative relationships are needed.²¹

Initial Development of the Assessment of Interprofessional Team Collaboration Scale (AITCS)

To identify the constructs underlying interprofessional team collaboration, a comprehensive literature search was carried out using Google Scholar. Search terms were *collaboration*, *collaborative teamwork*, *health care team working*, *cooperation*, *shared decision making*, and *partnership*. We found numerous for team effectiveness including the goal-setting model,²² interpersonal model,²³ role model,²⁴ and problem-solving approach.²⁵ However, none of these models were suitable as the basis for a quantified measurement tool allowing teams to determine their collaborative performance outcomes, or to learn and integrate new knowledge into their team working relationships.^{25,26}

As an alternative, we adopted Sullivan's approach, which defines collaboration as "a dynamic, transforming process of creating a power-sharing partnership . . . for purposeful attention to needs and problems (practice) in order to achieve likely successful outcomes."^{27(p118)} Critical attributes of collaborative practice include: coordination (the ability to work

together to achieve mutual goals), cooperation (the ability to listen to and value the viewpoints of all team members and to contribute your own views), shared decision making (a process whereby all parties work together in exploring options and planning patients' care in consultation with each other, patients and relevant family members), and partnerships (creation of open and respectful relationships in which all members work equitably together to achieve shared outcomes).²⁷ Each attribute is discussed below.

Coordination is defined as "the art of working together harmoniously."²⁸ Malone and Crowston theorized that well-coordinated activities and processes result in efficient use of time, effort, and resources; standardization of procedures (leading to quality outcomes); rapid response times; and a good reputation. Coordination involves a series of interlocking care-planning activities created with and for team members.²⁹ Effective coordination is essential for collaboration and is dependent on effective working relationships among services and interorganizational systems that provide needed time and resources^{30,31} while involving patients and their families.³¹ When team processes are structurally integrated, coordination is high.³² To achieve high levels of coordination team members must suspend previous preferences for individual practice³³ and address structural or ethical barriers that interfere with their fostering of IP team coordination.²²

In summary, coordination is the ability to work together to achieve mutual goals and leads towards team collaboration when appropriate and effective communication among team members exists and access to necessary equipment, supplies, human resources, information, and technology to meet their goals is available.^{33–35}

Cooperation is defined as "...acknowledging and respecting other opinions and viewpoints while maintaining the willingness to examine and change personal beliefs and perspectives."^{36(p193)} Sampson and Marthas³⁶ identified 9 key cooperative attributes: clearly defining goals, priorities, roles and responsibilities, support for self-reflection and self-awareness, leadership, group dynamics, communication guidelines, and care processes.³⁷ Cooperation may be viewed in opposition to HCPs' traditional concept of professional autonomy. Team members who demonstrate strong cooperation develop new attitudes and understand boundaries between each other's practices, and how their joint expertise can enhance teamwork.¹⁴ When limited knowledge of other professionals' knowledge, skills, and abilities, coupled with competitiveness amongst team members exist, distorted communication, and role and goal conflicts can impede coordination.^{33,34,38}

Makaram³⁹ suggests the need for HCPs to explore the uniqueness and *complementarity* of their roles to gain a greater understanding about what other HCPs bring to the care interface, including enhancing their confidence and

acceptance of all members functioning within the team. It is theorized that cooperation among IP team members can support improved communication, trust, openness, and understanding of a realistic division of tasks and sharing of resources.^{14,22,33,39–42}

Focusing on clients' problems and needs within a trusting and supportive environment creates a cooperative IP team environment^{42,43} allowing patients to gain an understanding of team members' roles leading to mutual respect.³⁸ Such cooperation has the potential for increasing shared decision making.

In summary, cooperation exists when a group of health providers work together in an environment where each person's skills, knowledge, and expertise are valued and sought out, thus achieving the highest level of health outcomes and meeting HCPs' expressed needs for their patients.

Shared decision making "is a process in which the patient and providers consider outcome probabilities and patients' preferences and reach a health care decision based on mutual agreement."^{44(p285)} According to Coulter,⁴⁵ characteristics of shared decision making include: (a) two or more participants are involved; (b) all parties work together to come to an agreement about the treatment available; (c) information is shared between all involved individuals; and (d) a collaborative agreement is reached for the treatment to be implemented. The patient's "expert opinion" is a necessary element in the process.^{6,7}

Adoption of shared decision making can be opposed by physicians because of perceived expansion of time needed to reach decisions, a belief that patients do not wish to be involved in their own treatment planning,⁶ concern about patients' ability to have sufficient information about the risks associated with various choices,⁴⁵ and uncertainty about team members' and patients' roles, impeding physician participation. At the same time, Towle and Godolphin suggest that "outcomes of care and adherence to treatment improve when patients are more involved"^{47(p766)} and Weinstein³ reported that patients expect to be informed, to have choices, and to have some control over decisions made for their health. Hence, when roles are clarified among all team members, including patients and their families, the situation is established to create partnering relationships among all parties.

In summary, shared decision making involves a process whereby all parties work together in exploring options for the care of a patient in consultation with each other, the patient, and relevant family members to arrive at a plan of care. Shared decision making involves a negotiation around shared input of each team member's perspective, leading to a mutually agreed upon decision.

Partnerships within collaborative practice recognize and respect the role and contributions of patients and their families as partners in their care.⁴⁹ In a pilot study about desired roles that patients wish to have in teams, Orchard et al⁴⁹

found that patients saw themselves outside team planning and decision-making processes. Thus, the concept of patients as partners with HCPs may not be part of HCPs' work expectations.^{49–52}

Collaborative partnering working relationships within teams require trust.^{53–62} Trust seems to be correlated with team members levels of experience and competence.^{63–76} Partnerships involve sharing responsibilities between parties,^{63,66,68–70} shared decision-making,^{64,69} and shared planning for interventions.^{63,68} Thus, partnerships require a collegial-like relationship,^{60,62,63} which facilitates sharing of different perspectives.⁶⁸

Effective partnerships require open and honest communications,⁶⁰ mutual trust and respect,^{58,60,61} and an awareness and valuing of the work, experience, and perspectives of all parties.^{57,64,68–70} Legare and colleagues proposed a shared decision-making model in which information exchange occurs between and among the patient, their family, and HCPs.³⁹ Thus, open communication is the means by which shared decision making evolves within IPC teams.

In summary, partnerships exist when team members, including patients and relevant family members, work together to plan, implement, and assess care and its outcomes. In collaborative partnerships all parties are trusted and their viewpoints and personal and professional experiences are respected, equitably listened to, and valued no matter what level of education or experience individuals bring to the care interface.

Based on the preceding literature review, our concept of collaboration comprises four key characteristics: coordination, cooperation, shared decision making, and partnership. These elements are supported by three enablers—role clarification, sharing, and valuing—which lay the foundation for team members to cooperate with each other in a coordinated manner, leading to development of trust. Trust, in turn, facilitates power sharing and shared decision making through working in partnerships with each other, patients, and relevant family members, leading to interprofessional collaborative practice. The ability to assess how HCPs work collaboratively is critical to gaining an understanding of IPCP's value in improving patient outcomes, supporting safer patient care, and addressing efficient use of existing health human resources.

Methods

The Assessment of Interprofessional Team Collaboration Scale is a diagnostic instrument designed to measure the IPC among team members. The preliminary version consisted of 48 statements describing characteristics of IPC and how a team works and acts. The characteristics of collaboration described above were used to generate items related to each element.^{14,20} Scale items represent the 4 elements

that are considered key to collaborative practice: partnership (14 items), shared decision making (12 items), cooperation (15 items), and coordination (7 items). Since the focus of IPCP is patient involvement in teamwork to improve health outcomes, constructs of patient-centred IPCP as defined by Orchard et al. were integrated into each of the subscales.⁴⁹

Items incorporated a 5-point Likert scale (with 5 = always, 4 = most of the time, 3 = occasionally, 2 = rarely, and 1 = never) allowing respondents to rate their current feeling about their team and themselves, as a member of the team. The stem for each item is “*when we are working as a team, all of my team members. . .*”

Data Collection

To establish content validity the study authors contacted 24 interprofessional education (IPE) experts to review the items for clarity, comprehensiveness, and content validity. The outcome was strong support for the items with a recommendation for inclusion of definitions for collaborative practice and teamwork. Additionally, 3 items were considered redundant. Revisions were made resulting in a 47-item instrument.

Sampling and Recruitment

Testing of the instrument was carried out on a convenience sample of 125 practitioners from 7 health care teams practicing within a variety of health care settings (orthopedic, general surgery, acute mental health, and palliative care) and long-term care settings in 2 provinces in Canada. Administrators from the health organizations determined which units and staff would participate. All participants received a letter of information, consent form, the AITCS, and an addressed return envelope. Ethics approval was obtained from the Human Subjects Committee from the universities in both provinces.

Data Analysis

The mean and standard deviation of each item were calculated for each team and then summed for each subscale. The cutoff score used to determine when collaboration within each subscale occurs was 4 (the practice occurs most of the time or always). Average item scores were calculated for each subscale to allow comparisons between subscales containing different numbers of items. Higher scores on all scales indicate a greater presence of the attribute or dimension being measured (ie, stronger partnership or higher expression of behaviors reflecting collaboration).

A factor analysis (FA) using principal components analysis (PCA) with an orthogonal varimax rotation^{71–73} was performed to evaluate how well the 47-items comprising the AITCS fit the scale structure. FA is a variable reduction

technique used “to identify factors, or dimensions, that underlie the relations among a set of observed variables.”^{74(p66)} An orthogonal varimax rotation was chosen to maximize the separation of the groups and the sum of the variances of the squared coefficients within each eigenvector; hence, the results of varimax rotation are more replicable and provided the researchers with the opportunity to generalize the findings beyond the sample of this study. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 18.0 for the descriptive statistics, Cronbach’s alpha reliabilities, and FA.

Results

Respondent Characteristics

A total of 125 participants completed the AITCS of whom 20.5% ($n = 25$) were male and 79.5% ($n = 97$) female. Their average age was 41.7 years (range 22– 69). Two-thirds (66.4%, 77/125) worked full-time, and 26.7% (31/125) worked part-time, with 6.0% (7/125) reporting they worked on a casual basis. More than one-half of the respondents had a bachelor’s degree, with 30.1% reporting a diploma and 12.2% a master’s degree. More than one-half of the group were registered nurses (58.5%), 8.5% were physiotherapists, and 5.9% social workers. Others included occupational therapists (5.1%), pharmacists (4.2%), physicians (2.5%), dietitians (2.5%), and practice nurses (2.5%). The remainder were single representatives from the following disciplines: clinical psychologist, speech–language pathologist, nurse practitioner, child and youth worker, ward clerk, recreation therapist, therapy assistant, and orderly. Participants’ mean number of years in practice since graduation was 3.73 years (range = less than 1 year to 16 years or more) and their mean for working within their team was 2.58 years with a similar range.

Factor Analysis

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.91, indicating that it was appropriate to perform FA on these data.⁷⁴ As well, Bartlett’s Test of Sphericity was significant (0.000), indicating that data were adequate for FA to be performed.⁷³

The FA revealed 3 components with eigenvalues exceeding 1, explaining a total of 58.0% of the variance, with component 1 contributing 48.0%, component 2 contributing 5.7%, and component 3 contributing 4.2%. An inspection of the scree plot revealed a clear break after the third component. Using Catell’s Scree Test,⁷⁵ it was decided to retain 3 components for further investigation (see FIGURE 1). To reduce the number of items and ensure retention of items that clearly discriminated among the factors, the authors determined a

cutoff point of 0.5, with a minimum difference among components of 0.1 for the factor loadings. It was deemed that items would be removed if the loading of a component was less than 0.5. Five items were loaded across the factors.

A further confirmatory factor analysis (CFA) (minus these 5 cross-loaded items) using 3-factor solution was carried out on the remaining 43 items. The total variance improved from 58.0% to 60.4%; however, 3 more items were cross-loaded. In the final CFA, these additional items were removed, resulting in all items loading higher than 0.50 except the first item that loaded at 0.431. The total variance increased to 61.02% and resulted in the retention of 37 items (see TABLE 1 for the factor loadings).

Factor 1 (19 items), called “partnership,” accounted for 51.20% of the variance; factor 2 (11 items), called “cooperation,” accounted for 5.47% of the variance; and factor 3 (7 items), called “coordination,” explained 4.34% of the variance. The expected fourth factor (shared decision making) did not emerge, but many items related to this factor were highly loaded on the partnership factor. This is not surprising, as partnership by definition relates to shared decision making^{55–58} and sharing planning for interventions.^{55,61} Consequently, it was decided to label the first factor “partnership/shared decision making.” The mean item scores and standard deviations of the AITCS subscales are presented in TABLE 2.

In addition, internal consistency was assessed to determine how well individual items reflected each underlying construct. Using standard test construction procedures, the authors analyzed responses to identify the key components of the instrument. Bivariate correlations were carried out to determine correlations between each item on a subscale with the total score and that of the other subscales. Further, intercorrelations between variables were conducted using item analysis, to evaluate the appropriateness of items and whether items were associated with their own subscale and/or with other subscales. Inspection of correlation matrices revealed the presence of many coefficients at 0.5 and above (see TABLE 3), indicating that all items are highly correlated with their respective subscale and with the total scale. Thus, the AITCS is a reliable and valid instrument comprising 37 items within 3 subscales.

To obtain internal consistency estimates for the reliability of each subscale, Cronbach’s coefficient alpha was used.⁷⁷ The overall reliability for the scale was 0.98, and the reliability for the subscales ranged from 0.80 to 0.97 (see TABLE 3).

Discussion

This study produced a psychometrically sound measure called the AITCS, consisting of 37 items and 3 subscales representing discrete elements of interprofessional

care, including: (1) partnership/shared decision making—19 items, (2) cooperation—11 items, and (3) coordination—7 items. The nature of these attributes is in keeping with the conceptual framework of enablers for collaborative practice.²

The study results provide evidence for internal consistency reliability and construct validity, showing promise for the AITCS’s practical utility. A major strength of the AITCS is its unique capacity to evaluate collaboration within teams across various practice settings and the integration of patient

involvement as part of team practice. It can easily be administered, taking from 10 to 15 minutes to complete.

To date, there has been a paucity of instruments to assist HCPs in assessing how well they collaborate within their teams; rarely have instruments addressed inclusion of patients within team discussions. The AITCS can be used to assist researchers who wish to measure cultural shifts within health care teams toward IPCP in organizations. It can be used a pre/postintervention measure by health educators to

TABLE 1. Factor Analysis

Item	Factor 1 Partnership	Factor 2 Cooperation	Factor 3 Coordination
1. Apply a unique definition of <i>interprofessional collaborative practice</i> to the practice setting			0.413
2. Share the power with each other		0.554	
3. Help and support each other		0.699	
4. Respect and trust each other		0.720	
5. Are open and honest with each other		0.731	
6. Make changes to their functioning based on reflective reviews		0.523	
7. Establish agreements on goals for each patient we care for	0.551		
8. All team members are committed to the goals set out by the team	0.625		
9. Strive to achieve mutually satisfying resolution for differences of opinions		0.674	
10. Include patients in setting goals for their care	0.606		
11. The goals that team members agree upon are equally divided among the team			0.553
12. Listen to the wishes of their patients when determining the process of care chosen by the team	0.591		
13. Encourage and support open communication, including the patients during team meetings			0.548
14. Use and agree upon process to resolve conflicts			0.559
15. Understand the boundaries of what each other can do		0.754	
16. Understand that there are shared knowledge and skills between health professions		0.728	
17. Exhibit a high priority for gaining insight from patients about their wishes/desires		0.627	
18. Create a cooperative atmosphere among the members when addressing patient situations		0.687	
19. Establish a sense of trust among the team members		0.692	
20. Team members meet and discuss patient care on regular basis	0.791		
21. There is support from the organization for teamwork	0.706		
22. Team members coordinate health and social services (eg, financial, occupation, housing, connections with community, spiritual) based upon patient care needs	.746		
23. Team members use a variety of communication means (eg, written messages, e-mail, electronic patient records, phone, informal discussion, etc)	0.610		
24. There is consistent communication with team members to discuss patient care	0.660		
25. All members of our team are involved in goal setting for each patient	0.673		
26. Listen to and consider other members’ voice and opinions/views in regards to individual care plan process	0.660		

(Continued)

TABLE 1. Continued

Item	Factor 1 Partnership	Factor 2 Cooperation	Factor 3 Coordination
27. The leader for the team varies depending on the needs of our patients			0.617
28. Select the leader for our team			0.820
29. Team members openly support inclusion of the patient in their team meetings			.597
30. When care decisions are made, the leader strives for consensus on planned processes	0.642		
31. Feel a sense of belonging to the group	0.586		
32. Team members establish deadlines for steps and outcome markers in regards to patient care	0.700		
33. Team members jointly agree to communicate plans for patient care	0.720		
34. Team members consider alternative approaches to achieve shared goals	0.802		
35. Encourage each other and patients and their families to use the knowledge and skills that each of us can bring in developing plans of care	0.662		
36. The focus of teamwork is consistently the patient	0.757		
37. Work with the patient and his/her relatives in adjusting care plans	0.789		

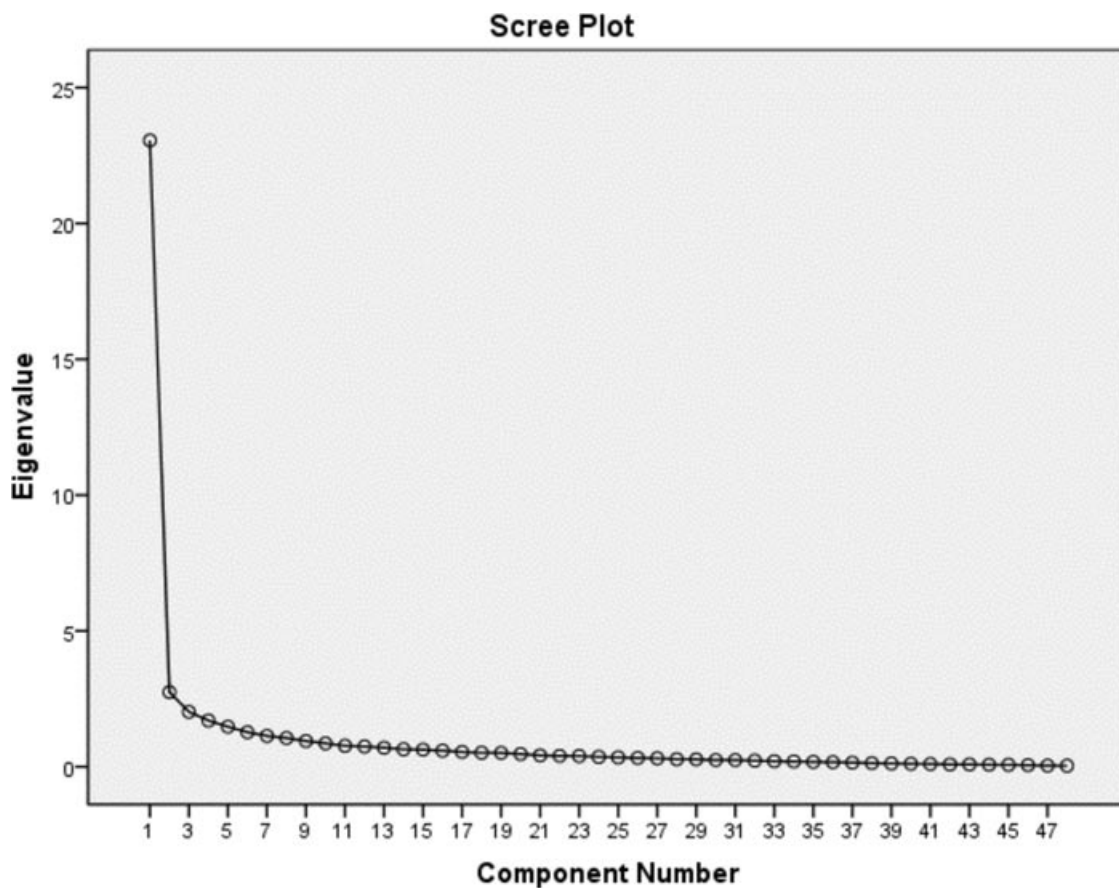


FIGURE 1. Scree Plot of AITCS Factor Loading

TABLE 2. Mean Item Scores, and Standard Deviations of the AITCS Subscales

Subscale	Number of Items	Mean	Mean Item Score	SD
Partnership	19	74.48	3.92	15.24
Cooperation	11	44.66	4.06	7.19
Coordination	7	16.68	2.38	3.43

TABLE 3. Internal Consistencies Among the AITCS and the Subscales

		Partnership	Cooperation	Coordination
Partnership	Pearson Correlation	1	0.812 ^a	0.718 ^a
	Sig. (2-tailed)		0.000	0.000
	N	123	123	122
Cooperation	Pearson Correlation	0.812 ^a	1	0.755 ^a
	Sig. (2-tailed)	0.000		0.000
	N	123	123	122
Coordination	Pearson Correlation	0.718 ^a	0.755 ^a	1
	Sig. (2-tailed)	0.000	0.000	
	N	122	122	122
AITCS Total Score	Pearson Correlation	0.972 ^a	0.915 ^a	0.818 ^a
	Sig. (2-tailed)	0.000	0.000	0.000
	N	122	122	122

^aAccepted reliability of items within and between sub-scales

TABLE 4. Reliability of the AITCS and the Subscales

Subscale	Number of Items	Cronbach Alpha
Cooperation	11	0.94
Partnership	19	0.97
Coordination	7	0.80
Overall Scale	37	0.98

assess the impact of continuing educational programs, and by health administrators as an ongoing performance assessment to help teams focus on key aspects of their team practice or to gain a snapshot measure of collaborative teamwork within a health care organization. The AITCS can enable HCPs to better understand complex processes involved in working as

Lessons for Practice

- Many health providers believe they currently function as interprofessional collaborative teams, when in fact their practice remains multidisciplinary.
- The AITCS can help health care teams enhance their development as teams by focusing attention on areas their members view as not being collaborative.
- Many health professional teams are reluctant to include patients and family members as full members of the team have a voice in shaping and assessing agreed-upon care.
- An interprofessional team cannot be considered truly collaborative unless it includes patients and family members as full members of the team.
- Collaboration in teams includes partnership, cooperation, coordination, and shared decision making among all members.

IPC teams. HCPs may use the AITCS to gather information about the extent to which their team members perceive they work together collaboratively and in which areas team members can focus to enhance their collaborative practice. Hence, there are several potential applications for the AITCS in research, continuing education, performance assessment, and evaluating team practice.

There are a number of study limitations. First, the sample was chosen by convenience and may not be representative of the general population of health practitioners. Although different settings were included in the team sample, this was not exhaustive of all settings and there are gaps in the types of settings; neither critical care nor community settings were included. The completion of the instrument was for pre-/postinterventions; however, only preintervention data were available for this analysis. Furthermore, the entire sample was obtained from 2 provinces in Canada. Hence, application of the findings to all of Canada and beyond is limited.

Further psychometric analysis is required to establish test-retest reliability, responsiveness to change, and construct validity through testing hypotheses. The next step will be to explore the clinical responsiveness of the AITCS by conducting longitudinal studies of team practice improvements. This will provide insight into the AITCS's value to supporting continuing education development across teams and organizations.

This chapter has summarized the process the authors undertook to uncover the 4 core elements of collaborative practice. In turn, these elements were used to develop the Assessment of Interprofessional Team Collaboration Scale, which is currently undergoing further evaluation for its reliability and validity. The strengths of this study relate to the number of respondents. A total of 125 completed the instrument. In comments from their use of the instrument, respondents indicated that it can be completed within a relatively short period of time and relates well to their actual work. For those administrators wishing to reinforce patient-centered care, the instrument has items in each subscale that focus on the involvement of patients in their care planning and decision making with the team.

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