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RESEARCH ARTICLE

Innovative Leadership Model for Healthcare Teams

Janice Hoffman Simen, PharmD, EdD, APh, BCGP, FASCP

Associate Professor of Pharmacy Practice and Administration, Western University of Health Sciences, 309 East Second Street, Pomona California 91766 USA

Email: jhoffman@westernu.edu

ABSTRACT

Background: Healthcare teams possess multiple clinical capabilities to meet the demands and challenges of individual patient-centered care. Teams in healthcare have been used for centuries, but the functionality of a team largely depends on the leader facilitating. With the complexities of healthcare, single leadership models often do not apply.

This study aimed to complete a multi-method qualitative study looking at four healthcare settings to explore the applicable use of the Simen-Schreiber leadership model to best describe the needs of healthcare teams (ambulatory diabetes clinic; skilled nursing facility [SNF], acute inpatient geriatric-psychiatric unit, and outpatient high-risk geriatric clinic).

Methods: The key constructs researched in this mixed-method qualitative study were: 1) skills needed for good healthcare team participation and 2) essential outcomes needed for successful patient-centered care (e.g. communication, interpersonal engagement, and shared decision-making). The qualitative portion of this study included three distinctive methods: 1) observation of each team functionality; [1,2] 2) interview to obtain background information about each facility; and 3) Focus Group session composed of 10 questions and a duration of approximately 75 to 90 minutes. Additional methodology utilized for this study included two validated and reliable quantitative assessments: 1) a healthcare team observation tool[1,2] and 2) emotional intelligence questionnaire.[3]

This multi-method, multi-case study design was selected to allow for triangulation of the data to support the seven constructs of the leadership model. The constructs include rotation of the leader; clinical expertise; emotional intelligence; and managerial skills, with the outcomes of communication; interpersonal engagement and share decision-making.

Results: There appears to be a slight trend of higher-functioning teams demonstrated higher emotional intelligence scores, according to the TEI-Que questionnaire and the Team Observation Tool results. From the managerial skills perspective, the Focus Groups results suggests that these skills, particularly in time management, are a target area for improvement among all four teams. Furthermore, these findings support the need to improve training in managerial skills to prepare professionals adequately for healthcare teamwork.

it is widely accepted that, good communication is vital within a healthcare team and is related to positive patient outcomes. Unfortunately, poor communication is seen daily in healthcare and can lead to serious health consequences for the patient and dissatisfaction with care by patients, family members, other caregivers, along with clinicians and other healthcare team members. Lastly, there appeared to be support from this study that involvement of the patient, family and interprofessional team in the shared decision-making process is helpful for successful patient outcomes.

Conclusions: The findings of this study support the Simen-Schreiber leadership model as applicable to healthcare teams. Each healthcare professional should possess clinical expertise, high emotional intelligence and good managerial skills, to be able to best function on a healthcare team. The Simen-Schreiber leadership model may be useful in preparing healthcare professionals for participation in teamwork, leading to more efficient and effective patient-centered care.

Introduction

The healthcare team possesses the clinical and medical capabilities to meet the demands and challenges of each individual patient. Teams in healthcare have been used for centuries, but the functionality of teams largely depends on the leadership conducting the team. The problem with the team approach is that the team often will only function as well as the leadership facilitating the process.

Traditional healthcare focused on physicians as the sole decision-makers. Primary care practitioners identified general treatment regimens for the patient and decided which tests to run and medications to prescribe, in a paternalistic paradigm. Specialists were sometimes engaged; however, each individual practitioner worked within their own silo, with limited communication across practices.[1] The concept of patient care teams has gradually evolved into common practice during the 21st century. Unfortunately, there are many healthcare organizations that have continued to operate hierarchically, with the physician acting in an authoritative role without the input of the interdisciplinary team.[4]

Many contemporary healthcare organizations have adopted a team approach to encourage collaboration between the clinical and medical capabilities of multidisciplinary professionals to meet the demands and challenges of today's complex, individual patient needs. Within hospitals, providing the best care is a "team sport," and the goal is to improve the quality and safety of patient care while optimizing healthcare staff performance and enhancing job satisfaction.[4] Patient-centered care is a multifaceted concept that (1) addresses how the patients need information to make informed healthcare decisions, (2) looks at the patient holistically, and (3) promotes collaboration while enhancing the relationship between healthcare professionals and patients.[5]

When assessing leadership theories, older leadership theories and models emphasize characteristics and qualities to find the "right person" for a leadership position or to give guidance in the decision-making process. More current leadership theories suggest that professionals can learn to be leaders. For most healthcare professionals, a combination of at least four leadership models and theories can be applied to describe the necessary leadership skilled needed: servant leadership, team leadership, authentic leadership, and the Leadership Challenge approach (this paper will not address the leadership theories in detail).[6]

Built on a foundation of communication, interpersonal engagement and decision-making, the proposed leadership model is designed to improve team leadership in healthcare. The single most important leadership skill in healthcare is probably communication. Since different team members cover the patient 24 hours a day, seven days a week, the ability to communicate effectively verbally and in writing can help to keep a team on task and informed as to the plan of care. Without appropriate communication, the team will falter either with interpersonal drama or lack of completion of tasks.

The Simen-Schrieber Healthcare Leadership model being researched is theoretically an approach for healthcare teams to function more efficiently (see Figure 1). One interesting part of the Simen-Schrieber Healthcare Leadership approach is that, while the leader may be the ultimate decision-maker (e.g., the writer of medical orders), the team and community can influence the leader, and the leader can be replaced (by other team members) at any time if necessary to further progress the project.[7] It is not the leader alone, but the feedback from all involved in the project, that provides forward progression. Eventually, this approach will need to be tested in a large sample size of healthcare organizations; however, the purpose of this article is to introduce, describe and to give structure to the type of leadership needed for healthcare professionals utilizing the Simen-Schreiber Leadership Model with the results of a pilot study looking at four different healthcare organizations.

Aim/Objectives

The aim of this pilot study was to complete a multi-method qualitative study looking at a pilot team in an ambulatory care clinic for patients with diabetes, a team practicing in long-term care within a skilled nursing facility (SNF), a team within an acute geriatric psychiatric unit, and a team working within an ambulatory clinic for high-risk geriatric patients, in exploring the descriptive use of the Simen-Schreiber leadership model for healthcare teams.

Objectives of this study:

1. To explore an innovative leadership model proposed for healthcare teams.
2. To explore if an innovative leadership model for healthcare teams is applicable in different settings.

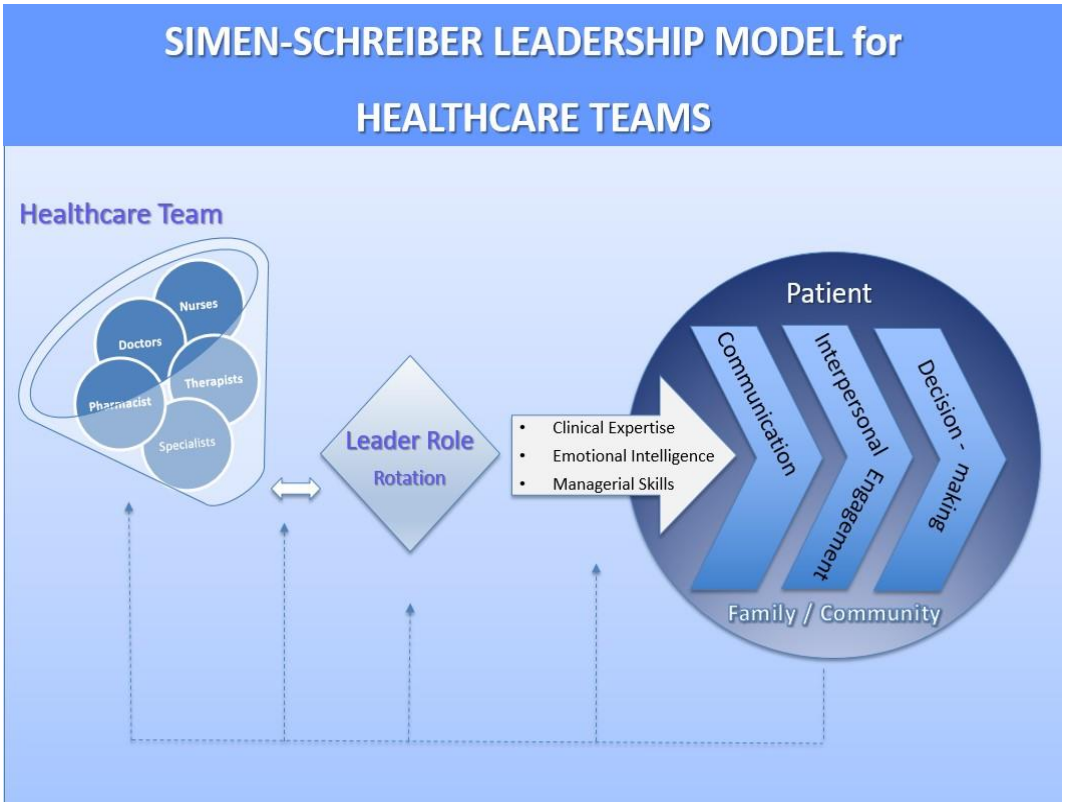

Figure 1: Simen-Schreiber Leadership model for healthcare teams[7]

Background and theoretical perspective

Healthcare teams are very complex and unlike business models that utilize one theoretical leadership model, healthcare teams need a combination of leadership models to adequately support patient-centered care. There are several models that address healthcare leadership at an executive administrative level, at a physician level, or from the perspective of care task completion. None of these previous models consider the entire healthcare team's leadership skills at the patient-centered care level. In comparison, the Simen-Schreiber leadership model for healthcare teams takes the perspective of all team members and demonstrates leadership skills so that the leader of the team can rotate to any member of the team best suited to meet the needs of each individual patient.

The four leadership theories that best support the Simen-Schreiber Leadership Model for healthcare teams include: Servant Leadership, Team Leadership, Transformational Leadership and Situational Leadership. These leadership theories support the conceptual structure of the Simen-Schreiber Leadership Model for Healthcare teams and will be briefly discussed.

Greenleaf's (1991) definition of servant leadership focused on leaders placing the well-being of others ahead of their own needs. Trying to benefit the community and society as a whole, using passion and motivation, reflects the servant leadership theory.[8] In healthcare, the needs of the patient come before the healthcare team needs therefore servant leadership theory is applicable. According to the Servant Leadership theory, the interdisciplinary team possesses the ability to actively listen, have empathy, trust and self-awareness (supporting the need for high emotional intelligence).[9] These attributes can be implicit when patients seek an assessment by healthcare professionals. The most important part of the servant leadership theory that grounds the Simen-Schreiber model is that healthcare professional teams place the greater good of the patient, family, and community over the individual needs of the professionals on the healthcare team.

Another applicable theory for healthcare teams is Hill's model of team leadership that defines the leader's responsibilities as monitor and observer of the team and as the final decision-maker, taking the action necessary for the team to be most effective.[6] Additionally, Hill's Model provides a cognitive guide to assist with design/maintenance of effective teams and allows for changing roles of leaders and other team members.

A healthcare team consists of several clinical practitioners in a variety of medical disciplines. Rotating the role of leadership within collaborative healthcare teams can help safeguard the team's focus on the patient's needs.[4] Furthermore, Hill's model suggests every member of the team should have the capacity to be the team leader. A unique characteristic of the Simen-Schreiber leadership model for healthcare teams is that the role of leader of the team rotates in order to best meet the needs of each individual patient.

The third applicable leadership theory is transformational leadership, which suggests that a leader should have charisma with passion regarding the project, inspiring and motivating others with the intellectual ability to defuse doubts by followers and have creative solutions for and innovation to carry out the new mission. [6,9] In the Simen-Schreiber leadership model, transformational leadership supports patient engagement and the shared decision-making of the team.

Situational leadership is sometimes considered a subset of transformational leadership theory.[12] In situational leadership, the leader adapts their leadership style based on the needs of the followership.[11]According to Hersey and Blanchard, situational leadership is based on the interaction of the following three principles:
(1) guidance and direction needed by the leader for task completion
(2) how much socio-emotional support the leader needs to provide for relationship behaviors
(3) the readiness for followers to perform specific tasks or functions
When applied in the Simen-Schreiber Leadership model to healthcare teams, the situational leadership theory targets the team's efforts to communicate and to engage the patient and caregivers in addition to providing quality patient-centered care.

Theoretically, high-functioning healthcare teams utilize the expertise of each team member. However, many of the challenges currently facing the healthcare industry can disrupt the functionality of teams. Teams are dependent on the leader to provide the motivation to accomplish common tasks and goals. Each team member should have adequate leadership training, clinical and managerial skills, and high emotional intelligence for an optimally functioning healthcare team—especially as proposed by the Simen-Schreiber leadership model for healthcare teams, where the role of the leader rotates among team members. Additionally, if the executive administration of healthcare systems would financially support the team concept and provide an appropriate level of staffing for each team, potentially high-functioning teams could lead to improvements in patient-centered care outcomes, satisfaction for patients and healthcare professionals, and increased medical safety.

Results of the Pilot study

This study investigated the innovative Simen-Schreiber leadership model for healthcare teams to determine if this leadership model is applicable to currently functioning teams across four different healthcare practice settings. This multi-method qualitative study looked at a pilot team in an ambulatory care clinic for patients with diabetes, a team practicing in long-term care, a team within an acute geriatric psychiatric unit, and a team working within an ambulatory clinic for high-risk geriatric patients.

The key constructs researched in this mixed-method qualitative study were: 1) the skills needed for good healthcare team participation and 2) desirable outcomes for successful patient-centered care (e.g. communication, interpersonal engagement, and shared decision-making).

Methods

This qualitative case study explored the perception of the applicability of the Simen-Schreiber integrated leadership model for healthcare teams from the viewpoint of the healthcare team within four different healthcare practice settings. This included measuring the team's perceptions and practice with the rotation of the team leader, and examining at team skills (clinical expertise, measuring emotional intelligence and managerial skills) and functionality through their outcome processes (as measured by communication, interpersonal engagement, and decision making).

The qualitative portion of this study included three distinctive methods: 1) an observation of each team using a team observation tool (refer to Appendix 2); [2] 2) an interview to obtain the background information about each care setting; and 3) a Focus Group interview session consisting of 10 questions and a duration of approximately 75 to 90 minutes. Additional methodology utilized for this study included two validated and reliable quantitative assessments (see Appendix 3 and 4) : 1) a healthcare team observation tool (see Appendix 2) [2] and 2) an emotional intelligence questionnaire (see Appendix 1).[3,20,23]

The selection of tools used was based on brevity of the questions, validity and reliability of the tool, and applicability to healthcare teams.

To assess the Emotional Intelligence level of each team participant, a questionnaire was utilized. Potential instruments were reviewed for this assessment. The final questionnaires included Bar-On's Emotional Quotient Inventory (EQ-i) Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT) and the Trait Emotional Intelligence Questionnaire (TEIQue).

From the perspective of personality, Petrides' Trait Emotional Intelligence Questionnaire (TEI-Que) captures Emotional Intelligence via self-report.[20,23] The TEI-Que was selected because of the length of the survey, has been tried in healthcare and the validity and reliability cited in the literature. [3,21,,22,23] It consists of 30 questions that uses a 7-point Likert scale resulting in 15 facets. [23] The validity for the TEI-Que had a confirmatory factor analysis of $\chi2(2)=6.29$, $p = 0.002$, CFI = 0.99, TLI = 0.98, IFI = 0.99, RMSEA = 0.05 [90% CI: 0.03; 0.08], and SRMR = 0.02 showing good construct validity (Laborde, et al. 2016) As for the reliability for the TEI-Que, the analysis was Cronbach' s alphas global ranged from .81 to .96.[3] Therefore the TEI-Que has good psychometric properties, and it has been tested in healthcare. However, TEI-Que is solely reliant on self-report without any objective metrics. [13,19]

When completing the TEI-Que questionnaire, team participants provided the following demographic information: years of practice, professional degree, educational level and gender (Refer to Appendix 1).
Each team was observed during their functional rounds to determine whether what the team reported during the Focus Group was consistent with what the team demonstrated in practice.
A validated observation assessment tool for teamwork in healthcare was utilized to record the observation (see Appendix 2). Additionally, the author maintained a journal with notes about the observation where the tool was not sufficient. Lastly, the use of multiple instruments assisted in looking at the complete case study to help ensure sufficient data for triangulation.

The Weller, Frengley & Torrie Team Observation Tool[2] was implemented by the author observing each team interdisciplinary meeting and scoring each of the 23-items on the 7-point Likert scale. A single observation of each facility team by a single researcher was conducted. Concerned about bias by a single researcher, during the pilot study, the researcher enlisted the facilitator for the focus group interviews to rate the team using the Observation Tool and the two completed scales were compared for consistency since the tool had been tested for inter-rater reliability.[18] Once the interrater comparison was completed and the researcher 's score was considered accurate, then the researcher scored alone and the total score for each facility was compared.

The population for this study consists of healthcare teams from a variety of practice settings located in Southern California, mostly within the Los Angeles area, and one in Baltimore, Maryland. The sites were selected based on practice settings representative of the healthcare team approach and the willingness to participate in the study. The team size ranged from 4 to 14 members with a range of professional experience from beginners to long-established, mature practitioners.

This study was approved by the IRB at University of La Verne. The facilities that served as sites for the study have an agreement with Western University of Health Sciences or with University of La Verne, or volunteered to participate. One facility volunteered to participate without any affiliation. Letters of cooperation from each facility were obtained prior to IRB application. The individual teams were selected by the facility and have pre-existing working relationships. All participants received an informed consent form guaranteeing confidentiality and anonymity.

The sample was selected using purposive sampling. Due to the nature of this study, the researcher needed to select healthcare teams that met the areas of practice being studied. Purposive sampling is widely used in qualitative research for the identification and selection of information-rich cases related to the themes or phenomenon of the study.[17] Case studies can involve single or multiple cases. The problems inherent in single case studies are related to limitations in generalizability and several information-processing biases. [18,19] In summary, to improve the opportunity for this research to be generalizable, the researcher selected four healthcare teams from varied practice settings with varied practitioners of different professions and experience levels.

This multi-method and multi-case study was selected to allow for triangulation of the data to support the seven constructs of the leadership model. The constructs included: rotation of the leader; clinical expertise; emotional intelligence; managerial skills with the outcomes of communication; interpersonal engagement and share decision-making.

For the seven constructs of the Simen-Schreiber Leadership Model for Healthcare teams, the researcher reviewed each construct with the support of the study findings. Below is a summary of each construct and the findings that relate to each construct.

Rotation of the Leader

In Focus Group question #6 (see Appendix 3) of the focused group interview, there was general agreement with the idea that rotation of the leader for healthcare teams is a useful model. Team members at all four practice settings (Pilot, Facilities A, L and W) indicated that the rotation of the leader is a good idea except for one team member at the Pilot. However, through the team observation it was observed for Facility A that there exists a very hierarchical physician-led meeting structure. Therefore, the findings of this study support that rotation of the leader is conceptually sound, but in actual clinical practice may not be happening.

Clinical Expertise

From the team perspective, this study revealed that each team member's strengths and weaknesses are balanced out by relying on each other to compensate for weaknesses. The findings of this study also disclosed that if a professional has significant clinical weaknesses and the weaknesses become a burden to the rest of the team, the clinician may need to be terminated to strengthen the team, as discovered by Facility L. Clinical expertise is needed for teams members to trust and rely on each other., These study findings support the construct of the need for clinical expertise as suggested in the Simen-Schreiber Leadership Model for Healthcare Teams.

Emotional Intelligence

From the TEI-Que instrument, data collected are displayed in aggregate numbers for the purpose of this article, with an average score per facility of 167.15 (refer to Table 1). It is notable that Facility L and Facility P (Pilot) had the highest scores. Supportive of the high emotional intelligence score, Facility P (Pilot) also had high Team Observation Tool scores. While the sample size is very small, there appears to be no significant trend to support that higher emotional intelligence scores contribute to higher team functioning.

Emotional Intelligence enhances teamwork, decision making and relationship/trust building.[24] From the data, there appears to be a symbiotic relationship occurring related to experience, training, generational values, and education. Additionally, there is a need to articulate the value in awareness through further education of professionals working in team settings. Professional growth/seminars and job-related trainings could further the productive work of health care teams (see Table 2).

Table 1: *Comparison of the TEI-QUE ASF modified Adult Scores*

Survey Questions	**Facility P (PILOT)**	**Facility A**	**Facility L**	**Facility W**	**Average with (Standard Deviation)**
It's easy for me to talk about my feelings to other people.	5.27	5.5	5.67	4.50	5.2 (0.5)
I often find it hard to see things from someone else's point of view.	5.91	5.25	5.44	5.6	5.6 (0.3)
I'm a very motivated person.	6.45	6.5	5.78	6.10	6.2 (0.3)
I find it hard to control my feelings.	6.09	6.5	5.33	5.6	6.1 (0.3)
My life is not enjoyable.	6.55	5.25	6.56	6.5	6.2 (0.6)
I'm good at getting along with my colleagues.	6.64	4.25	5.89	6.30	5.8 (1.1)
I change my mind often.	5.18	6.5	5.22	4.8	5.4 (0.7)
I find it hard to know exactly what emotion I'm feeling.	6.18	5.5	5.44	5.80	5.7 (0.3)
I'm comfortable with the way I look.	5.55	5.0	5.56	5.90	5.5 (0.4)
I find it hard to stand up for my rights.	5.91	5.0	5.44	4.60	5.2 (0.6)
I can make other people feel better when I want to.	6.09	4.75	6.22	5.90	5.7 (0.7)
Sometimes, I think my whole life is going to be miserable.	6.82	7	6.89	6.30	6.8 (0.3)
Sometimes, others complain that I treat them badly.	5.73	6	6.44	6.3	6.1 (0.3)
I find it hard to cope when things change in my life.	5.82	6.25	6.0	6.00	6.0 (0.2)
I'm able to deal with stress.	5.91	5.25	5.22	5.60	5.5 (0.3)

I don't know how to show the people close to me that I care about them.	6.27	6.5	6.11	6.0	6.2 (0.2)
I'm able to "get into someone's shoes" and feel their emotions.	5.91	6.25	5.44	5.60	5.8 (0.4)
I find it hard to keep myself motivated.	5.82	6.75	6.0	6.3	6.2 (0.4)
I can control my anger when I want to.	6.36	3.75	5.89	5.60	5.4 (1.1)
I'm happy with my life.	6.18	6.5	6.22	5.90	6.2 (0.2)
I would describe myself as a good negotiator.	5.91	5.25	5.00	4.80	5.2 (0.5)
Sometimes, I get involved in things I later wish I could get out of.	4.64	4.67	4.33	3.2	4.2 (0.7)
I pay a lot of attention to my feelings.	5.00	4.75	4.44	4.70	4.7 (0.2)
I feel good about myself.	6.27	6.5	5.89	5.80	6.1 (0.3)
I tend to "back down" even if I know I'm right.	4.82	3.25	4.89	3.40	4.1 (0.9)
I'm unable to change the way other people feel.	4.18	4.25	5.22	4.70	4.6 (0.5)
I believe that things will work out fine in my life.	6.36	6.25	5.89	6.00	6.1 (0.2)
Sometimes, I wish I had a better relationship with my family.	4.64	4.75	5.78	3.67	4.7 (0.9)
I'm able cope well in new environments.	5.82	5.75	5.44	5.70	5.7 (0.2)
I try to control my thoughts and not worry too much about things.	5.36	5.5	5.22	5.30	5.3 (0.1)
Average	**5.8**	**5.5**	**5.6**	**5.4**	
Total	**173.6 (P)**	**164.0 (A)**	**168.9(L)**	**162.1(W)**	

Table 2: *Comparison of Demographics with TEI-Que ASF Score*

Facility	Number of participants	% Female	Ave. years of experience	Range of experience (years)	Ave. TEI-QUE score	Range of scores	Miscellaneous
Facility P (PILOT)	11	63.6% (7/11)	16.4	4 - 33	173.6	142 - 192	3 physicians Research coordinator Case coordinator Dietician Podiatrist Dental Hygienist
Facility A	4	100% (4/4)	20.88	4.5 - 34	164.0	151 - 170	Physician Program Director Social worker Pharmacist
Facility L	9	77.78% 7/9	15.84	4 - 33	168.9	145 - 189	2 Physicians 2 Pharmacists 2 Social Workers 2 Nurse Practitioners 1 Admin.
Facility W	10	100% 10/10	19.33	3 - 40	162.1	145 - 193	Nurses Administrator Billing Dietician Activities Social Work
Overall	34 (3 students excluded)	82.35% 28/34	18.11	3 - 40	167.15	142 - 193	

Managerial Skills

Support of active listening being part of an interprofessional team's skills comes from Question #1 of the Focus Groups (see Appendix 3), where it was revealed that active listening and participation in communication is at the heart of showing respect for the patient and for other team members. From the Focus Groups Questions #9 and 10 (see Appendix 3), the consensus was that time management was of the essence. Management of time could be improved for all four practice settings, and time with the patient the value of spending time with the patient outweighs the need to see a larger volum of patients; the clinician must spend adequate time to care for the patient's needs. Facility W expressed that time management was an important issue for staff; however, the team leaders were good with time management.

Financial resources can be an issue for some facilities based on the level of care that is needed for older patients for Facility A, L and W. However, according to Facility L if the revenue stream is diversified for example, with grants, research studies and donation, it can assist with the loss of revenue based on time needed to care for complex older patients.

To summarize from the Focus Groups, managerial skills appear to be an identified area for improvement among all four care settings, and these findings support the need to improve training in this area to prepare professionals adequately for healthcare teamwork.

Communication

From the Focus Group question #1, the findings of the combined themes showed that communication should be bidirectional and understood by all parties. Active listening and participation in communication is at the heart of showing respect for the patient and for other team members. Further findings from Focus Group question #2 revealed a common theme that communication clearly affects patient outcomes. Poor communication is seen on a frequent basis in healthcare according these four facilities. The consensus of the Focus Groups suggested that poor communication can lead to serious health consequences and dissatisfaction in the care for patients and caregivers alike and has negative consequences for providers. On the other hand, clearly understood, bidirectional communication can have a positive impact on engagement and patient outcomes.

In summary, good communication is vital to the healthcare team and correlates directly to positive patient outcomes. Utilizing multiple communication modalities, to be flexible and adapt the healthcare team's communication technique, in order to be actively listened to by other providers, patients and caregivers is pertinent for successful patient outcomes. Furthermore, training future healthcare professionals to understand bidirectional communication and practice flexibility is important to prepare them for effective participation on a healthcare team.

Interpersonal Engagement

Question #1 from the Focus Group Interviews (see Appendix 3) addresses that open-minded and respectful communication is at the heart of patient care. Additionally, Question #10 supports dignity of patients, with the findings related to time spent with the patient should be "value over volume". According to the teams interviewed, patients should be seen as a person and not a number rushed in and out. According to this study results, taking sufficient time with the patient to provide quality patient care and dignity is key. Furthermore, the findings for Facility P (Pilot) and Facility W for the TEI-Que, Team Observation and the Patient Satisfaction Survey results support respect, empathy and dignity (refer to Appendix 3 and Tables 3 and 4 for Patient Satisfaction Surveys).

Patient Satisfaction Survey Results

Table 3: *Facility P (Pilot) Patient Satisfaction Survey*: N= 74 (2016)

Questions	very good	good	Fair	Poor	Very Poor
Friendliness/Courteous	75%	21%	3%	0	0
Explanations about your conditions	77%	19%	3%	1%	0
Concerns shown for questions or worries	71%	25%	3%	1%	0
Efforts to include you in decisions	72%	24%			
Information about medication	74%	21%			

Instructions about Follow-up care	73%	21%	5%		
Degree that providers talked using words you could understand	73%	25%			
Amount of time providers spent with you	70%	26%			
Your confidence in the team	79%	17%			
Likelihood you would recommend the clinic to others	84%	15%			

Patient Satisfaction Survey

Table 4: *Facility W 2017 Patient Satisfaction Survey* (N=51)

Department	Question	YES	NO	Blank, n/a, etc.	Response Rate by Question	Satisfaction of those who answered
ADMISSION PROCES	Was the admission process efficient and easy to understand?	33	3	1	89%	92%
	Were the associates courteous and helpful during your transition?	35	1	1	95%	97%
	Were all of your questions answered?	31	4	2	84%	89%

ROOM & HOUSEKPG	Was the room clean and prepared when you arrived?	33	2	2	89%	94%
	Was the cleanliness of the room maintained throughout your stay?	33	2	2	89%	94%
	Were Housekeeping associates courteous?	34	0	3	92%	100%
NURSING SERVICES	Overall, did you receive good care?	33	2	2	89%	94%
	Were the nursing associates knowledgeable?	31	3	3	84%	91%
	Were they courteous and professional?	34	2	1	92%	94%
	Were your needs and requests promptly addressed?	30	4	3	81%	88%
REHAB SERVICES	Overall, were you satisfied with the professional therapy services?	28	3	5	78%	90%
	Were the therapists courteous?	29	1	6	81%	97%
	Were they knowledgeable?	30	0	6	83%	100%
ACTIVITIES	Were you offered activities that interested you?	24	4	8	67%	86%
	Were the activity associates courteous?	26	1	10	70%	96%
VISITORS	Did your visitors feel welcomed and comfortable?	33	1	3	89%	97%
DINING SERVICES	Were the meals appetizing?	28	5	4	76%	85%
	Did the food taste good?	27	7	3	73%	79%
	Was the hot food hot (and the cold food cold)?	19	7	11	51%	73%
	Were you satisfied with the variety?	23	4	10	62%	83%
	Were you given enough time to finish your meals?	23	4	10	62%	85%
BILLING	Were all of your billing questions resolved?	26	2	6	76%	93%
	Were the billing associates courteous and helpful?	26	1`	7	76%	96%
GOING HOME	Did you receive help in preparing to go home?	20	2	14	56%	91%
	Did you receive referrals for follow up care at home (if appropriate)?	16	2	19	435	89%
OVERALL	Were you satisfied with your stay at Woods Health Services?	31	5	1	84%	86%
	Would you feel comfortable referring others?	28	7	3	74%	80%

**Facility A and L were not able to assess their 2017 Patient Satisfaction Survey due to corporation restrictions

Shared Decision-Making

Focus Group Questions #4 and #6 (see Appendix 3) revealed that hierarchical decisions continue to be of concern in healthcare particularly for Facility A. This may be related to the level of acuity within an acute psychiatric inpatient setting. However, there was ample support from the findings of this study that if a decision was not critical, the involvement of the patient, family and interprofessional team in a shared decision-making process is optimal for successful patient outcomes. Therefore, the findings in the Focus Groups supports the shared-decision making construct for the Simen-Schreiber Leadership Model for Healthcare teams.

There appears to be a slight trend of higher-functioning teams demonstrating higher emotional intelligence scores, according to the TEI-Que questionnaire and the Team Observation Tool results. From the managerial skills construct perspective, the Focus Groups results indicate that this skillset, particularly in the time management arena, is an identified area for improvement among all four teams. In addition, these findings support the need to improve training in managerial skills to prepare professionals adequately for healthcare teamwork.

Lastly, there appeared to be an abundance of support from the findings of this study that if the decision was not critical, the results suggest the involvement of the patient, family and interprofessional team in the shared decision-making process is imperative for successful patient outcomes.

The table 5 looks at the constructs of the model and the methods used in this study as to whether the findings support = Y = Yes or the findings did not support = N = No.

Table 5 : *Constructs with Methodology*

Construct	Facility P (Pilot)			Facility A			Facility L			Facility W		
	Obs	FG	TEI	Obs	FG	TEI	Obs	FG	TEI	Obs	FG	TEI
Rotation of leaders	Y	Y	*	N	Y	*	N	Y	*	N	Y	*
Clinical Expertise	Y	Y	*	Y	N	*	Y	N	*	Y	Y	*
Emotional Intelligence	*	Y	Y	*	N	Y	*	Y	Y	*	Y	Y
Managerial Skills	Y	N	*	Y	N	*	N	N	*	Y	Y	*
Communication	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Interpersonal Engagement	Y	Y	*	Y	N	*	Y	Y	*	Y	Y	*
Shared Decision-making	Y	Y	*	N	N	*	N	Y	*	N	Y	*

***Cannot be observed**

Obs = Team Observation; FG = Focus Group; TEI-Que = Emotional Intelligence Assessment

Discussion

The findings of this study support the Simen-Schreiber leadership model as being applicable to healthcare teams. Each healthcare professional should possess clinical expertise, high emotional intelligence and managerial skills to be able to function optimally on a healthcare team. Furthermore, there should be an expectation for quality, dignified/respectful patient-centered care within limited time allotments, and with excellent communication and shared decision-making between the healthcare team and patient/family/caregivers to reliably provide successful patient outcomes. Therefore, the Simen-Schreiber leadership model may be useful in preparing healthcare professionals for participation in teamwork, leading to more efficient and effective patient-centered care.

The significance of this study is that no existing leadership models synthesize multiple theories and apply the synthesis to healthcare teams in different professional practice settings. The Simen-Schreiber Leadership Model for Healthcare teams supports the combination of leadership theories: 1) Servant Leadership; 2) Team

Leadership; 3) Transformational Leadership and 4) Situational Leadership as the framework to explain the needs of the complex functions and levels of healthcare teams. Additionally, the literature is unclear as to the leadership skills needed to prepare healthcare professionals for team clinical practice settings and the training needs to guide current teams to improve efficiency and effectiveness towards meeting individual patient-centered care needs.

The impact of the Simen-Schreiber leadership model may influence (1) how healthcare professionals prepare for leadership roles, (2) the quality of leadership on existing healthcare teams and (3) patient-centered care outcomes, (4) the ease and efficacy of healthcare teamwork, and (5) what type of training is needed in healthcare professional curriculum.

Leadership skills are not currently taught among many healthcare professional programs. Moreover, each member of the healthcare team should possess leadership skills such that the leader of the healthcare team can be rotated to best meet the medical and psychosocial needs of each individual patient. This study supports that the skills needed for teamwork in healthcare include clinical expertise; emotional intelligence; managerial skills. Honing the aforementioned skills can lead to enhanced communication, interpersonal engagement and shared decision-making.

Clinical expertise is not just the knowledge learned within a given healthcare profession but each provider knowing their personal strengths and weakness. Teams function well when the strengths and weakness of each team member is balanced out with other team members' strengths and weakness. Thus, this balance leads to a team with more strengths than weakness. More importantly, if the team does not have an expertise in a specific area of knowledge, knowing how and who to make a referral is essential for quality patient care.

Healthcare professional training institutions, preparing students for a variety of practice settings should provide profession-based clinical knowledge but additionally interprofessional education with a focus of leadership skills training. The findings of this study, particularly the TEI-Que (see Appendix 1) and the Team Observation Tool (see Appendix 2) as well as the Focus Group (see Appendix 3) results support the need for high emotional intelligence, clinical expertise, communication, and managerial skills training. Since high emotional intelligence can be a life-long achievement, the potential incorporation of assessing emotional intelligence in professional schools can lead to the setting of goals with advisors or mentors to achieve each student's highest capability to function in preparation for performing on a highly functional healthcare team.

While the sample size is very small, there appears to be a trend that supports the higher the emotional intelligence score may contribute to higher team functioning and supports the findings in the literature.

Emotional Intelligence enhances teamwork, decision making and relationship/trust building. From the data, there appears to be a symbiotic relationship occurring related to experience, training, generational values and education. Additionally, there is a need to articulate the value in awareness through further education of professionals working in team settings. Professional growth/seminars and job-related trainings could further the productive work of health care teams.

Managerial skills are another area of needed training for health care professionals. With Health Maintenance Organizations (HMO) employing many healthcare professionals, time management, resource utilization and conflict resolution techniques become key managerial skills. This study only touched upon the need for managerial skills being the simplest and most important time management. All four facilities who participated in this study suggested that their team or staff could improvement on time management.

Without time management, patients wait extraordinary amount of time in waiting rooms to be seen. Wasting anyone's (patient or professional) time is wasting money and this is an area for improvement in healthcare. When an HMO limits the visit time a physician and nurse can spend to 12 minutes for example, a 92-year-old patient who walks slowly and has difficulty transferring from the chair to the exam table, the 12 minutes are used before the problem and physical assessment can be started. Some patients need more time that others and schedules need to be adjusted to accommodate each individual patient's needs.

Looking at utilization of resources, ask any physician, nurse, therapist, or other healthcare professional what a gauze pad or needle and syringe cost. It is likely the professional will not know; however, they use them

many times every day and are many times wasteful. Healthcare professionals need training in utilization of resources, not only for supplies but for human resources and how much the cost and services are interconnect. Traditionally, in the United States, budgeting and business aspects are minimally taught in healthcare professional schools because the likelihood of a professional involvement was minute in the business of healthcare however, in today's healthcare the business aspect is more important than ever before. Even the simple business tasks such as fixing a fax machine, telephone or copier or computer issues affect time management for healthcare professionals as well as the business specialists. Hands on training in budgets, and business-related tasks should be incorporated during healthcare professional training and continuing education courses since technology and business aspect do change. This type of training could be very humbling and develop respect for the non-healthcare personnel of an institution.

In all types of teams there will be disagreements. How long those conflicts interfere with the functionality of the team is based on the ability of the team to resolve the conflict. Conflict resolution is a key managerial skill to keep a team at the highest functioning level. Resolution of conflict needs to be a continually refreshed skillset that should be included in continuing education requirements as well as in professional school training along with emotional intelligence as they are both people involved skills. Compassion, empathy, and caring come from within the heart and servant leaders generally possess these attributes. Understanding people and where they are coming from can lead to reduced conflict within the healthcare team as well as with patients and families. Patient-centered positive outcomes revolve around the patient's needs being met through the care provided. Thus, the managerial skill of conflict resolution is imperative for teamwork and with patients and families especially coupled with good communication skills.

From this study, face-to-face communication, with all healthcare team members present for discussion, was found to be the best modality of communication, thus, is vital to successful healthcare teams. Active listening, open-minded, body language and respected communication with the knowledge that the communication has been acknowledged and understood are additional key findings in this study. Reading and understanding team members body language is crucial to understanding the intent of the verbal language being used. If the nurse for example, comes to team meeting out of breath and her body is shifting left to right because she is anxious to complete her patient care task, does each team member interpret this body language in the same way? Or when a physician is texting while another professional is talking showing noninterest in the others opinion is interpreted as rude or distracting? Teaching healthcare professionals about body language is just as important as learning to use appropriate verbal language to communicate care directions. Moreover, teaching healthcare professionals' manners as well as to actively listen to others including thinking before answering, not texting or using a phone and not blurting-out interrupting others takes patience and time to teach. While healthcare professional schools may think of communication as a "soft skill" it is the most vital and fundamental skill needed. Furthermore, communication is currently the highest deficient and contributing factor to errors in healthcare today. Communication of all types, body language, verbal and written (including texting) communication etiquette needs to be taught to practitioners and student professionals. With have at our fingertips many modalities of communication and the correct method for each team member needs to be identified and used correctly. Additionally, the best modality of communication for the patient and family needs to be selected and utilized by all team members.

Communication skills also provide for interpersonal engagement with the patient. There is generally one person on a healthcare team for whatever reason bonds well with the patient. That professional should become the key team member to communicate with the patient. The team needs to communicate the patient-centric goals and the key communicator needs to be able to reinforce these goals with the patient for positive outcomes.

Without adequate communication skills, shared decision-making cannot be achieved. Poor communication and risk of medical errors has liability in healthcare that currently lies within the scope of the physician. In the United States, physicians as well as all healthcare professionals have constant concern about liability, malpractice, and lawsuits. A paradigm shift needs to occur to move the current burden of lawsuits and liability from the physician to the facility where the healthcare team is practicing. Changes in government policies will need to change to lift this burden from the physician. If liability laid in the scope of the facility, the hierarchical pyramid would crumble, then the responsible for care would be spread across teams thus, teams would have more freedom for rotation of leader. *Figure 2* illustrates the need for the health care system and the healthcare education system to work together to design policies accommodating interprofessional teams.[15]

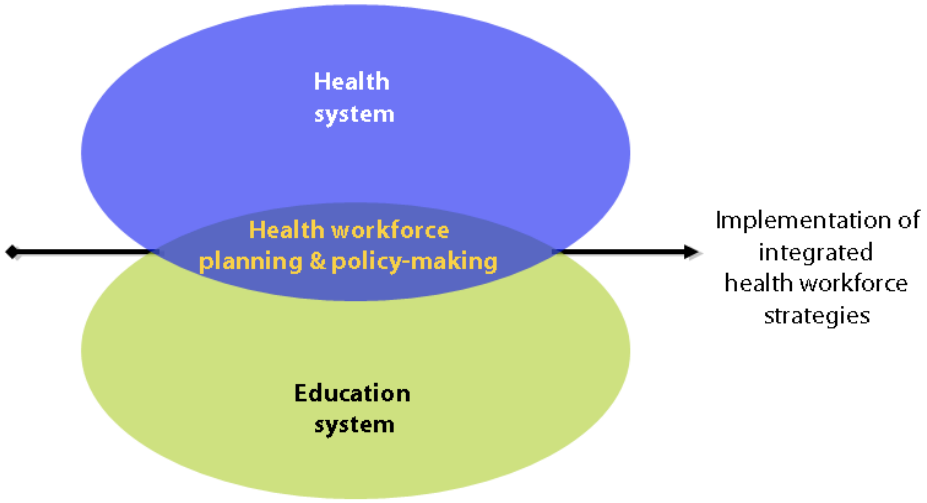

Figure 2. Health and education systems. Adapted from "Framework for Action on Interprofessional Education and Collaborate Practice," by World Health Organization, 2010, p. 39.

Furthermore, decision-making currently is linked to insurance payments. Selection of services is based on what each patient's insurance will cover and a decision as to whether services needed are affordable for the patient. This is where another paradigm shift needs to occur. Instead of the current capitated diagnostic-related group reimbursements, for example, for open-heart surgery, the insurer will pay maximally $2,000 for all services provided in the hospital, instead the payment should be team-based by hours and supplies needed. Perhaps a patient needs extra time in physical therapy or a different medication due to allergy, insurers should pay for services deemed necessary by the clinical team. If the healthcare team reviewed the patient and submitted a projected cost, the facility billing and the insurer could then negotiate the payment. To have the burden on the patient with the limits set by the insurer can lead to financial ruins for many Americans. A major problem in the United States healthcare system today is that the insurers are setting the clinical services that can be provided instead of what is deemed necessary by the clinicians. Insurance companies make a profit off not providing healthcare services. For example, if you are over 50 years and need your first colonoscopy, the patient may have an anxiety disorder or major depression and need anesthesia to not move doing the procedure. Insurance companies have decided anesthesia is unnecessary for outpatient colonoscopy, thus, if a patient wants to be sedated and not awake during the procedure, the patient must pay hundreds of dollars for that service out of pocket. While for some patients being awake is feasible, for others it could lead to medical complications and insurance companies will not be saving money but spending much more for consequential hospitalization. Moreover, the person with no medical background who a patient finally gets to answer the phone after the multiple voicemail selections should not be approving or denying anesthesia over the phone to a patient. This should be a decision in the hands of the colonoscopy interdisciplinary team not the insurer and certainly not with nonmedical personnel. There needs to be a massive change in payment reimbursement for healthcare with this shift encompassing incentivized team-based interventions, therefore, returning the shared decision-making to the healthcare team with a patient-centric focus on positive outcomes instead of profit-making insurers.

Barriers to Change

As presented in the Simen-Schreiber Leadership Model for Healthcare Teams, communication, interpersonal engagement and shared decision-making are important outcomes for healthcare teams. However, this study did not address the global barriers to implementation of healthcare teamwork across levels of care. Currently communication is a major barrier in healthcare both written and verbal within facilities as well as external to facilities. In the various levels of care, from acute care hospitals to long-term care skilled nursing facilities, the computer systems are unable to communicate. Within the facility, the teams do not talk among the members together unless they are rounding with the physician or at an interdisciplinary team meeting. Teaching future healthcare providers to speak with each other is key to overcoming the internal communication barrier. Furthermore, until the computer programs can communicate the pertinent patient information across the continuum of care communication remains a barrier at the largest level.

Economics is another major barrier for healthcare teams particularly in the United States. Reimbursement for the hours of care provided and the cost of that time are currently incongruent. There needs to be a paradigm shift in the United States healthcare system for the insurers or payors to change to a patient-centric or team-based reimbursement system. Similarly, liability needs to shift from the physician/practitioner as an individual to the whole facility with the responsibility spread across the teams and all healthcare practitioners.

With human resources as the essential component of healthcare, the patients and families need to build trust with the team and this is likely more of a barrier due to labor regulations and the length of work shifts. Consistency of patient-center care is difficult to provide because every provider is an individual and practices differently.

Lastly, and most importantly, is patient safety factors. Medical errors occur often in the acute care setting and could be minimized with good communication and efficiency of healthcare teams. Patient safety is at the center of attention for improvement across the spectrum of care. Without continuous training for health care providers in communication, emotional intelligence and clinical skills, patient safety will remain a barrier and a measurement of poor-quality healthcare services.

In summary, as this study demonstrated, the leadership of healthcare teams is multifaceted and cannot be supported by one leadership theory alone. Healthcare teams vary across the continuum of care in team member composition and resource utilization. In addition, one leadership model may not be sufficient to describe the complexities across a variety of healthcare settings. The Simen-Schreiber Leadership Model may provide an excellent guide for leadership development in long-term care and ambulatory care setting; however, the acuity of patients may play a role in the leadership intricacies that need to be addressed in other healthcare practice settings such as acute hospitals. This study did not completely answer the research question Does the Simen-Schreiber leadership model describe the function of the healthcare team across a variety of healthcare practice settings?" The study confirmed the Simen-Schreiber leadership model does describe the functions of the healthcare team in long-term care and ambulatory care settings, however the acute care psychiatric setting continues to be very physician centric likely due to the acuity of care needed as well as younger teams may need more constructs than the Simen-Schreiber leadership model provides. This study demonstrated the need for continuing education among current healthcare practitioners as well as additional longitudinal curriculum for all professional healthcare graduate school programs for improvement of clinical skills, emotional intelligence, and incorporation of managerial skills training.

Conclusions- Synthesis

Healthcare teams provide highly individualized care to many patients which requires each team member to adapt to meet their needs. The team needs to function at the highest level with minimal time wasted. For a healthcare team to perform at its highest capacity, communication, interpersonal relationship building, and shared decision-making are the drivers at the core of functionality for effective healthcare teamwork.[7]

The synthesis of Simen-Schreiber leadership model takes into account, the aforementioned four leadership theories as well as the functional behaviors and traits most relevant to optimizing the healthcare team's functionality. The Simen-Schreiber leadership model (see Figure 1) suggests the optimal composition of healthcare teams and the rationale for rotating the role of the team leader from the physician to another member of the team based on who will best meet the patients' needs. Individual team member capability is described, as is the influence these traits have on broad-based processes of communication, interpersonal engagement, and decision-making as related to patient-centered care (see Figure1). [7]

Further research

This study was comprised as a Pilot in an Ambulatory care clinic and three other distinct healthcare settings. Unfortunately, the acute hospital did not embrace the study methodology over concerns for patient privacy issues. Therefore, future studies should be completed among many teams within the acute hospital setting.

Additionally, future studies should consider examining professional healthcare students team readiness after receiving training and development in clinical expertise, managerial skills (e.g. time management, resource utilization and conflict resolution techniques) and lastly, an emotional intelligence improvement program to determine if these skills enhance their preparedness for healthcare team interactions. Further examination of

the need to include training for future healthcare professionals to understand bidirectional communication and practice flexibility is important to prepare them for participation on a healthcare team.

Current practitioners can benefit from continuing education training in emotional intelligence and communication as well as managerial skills, particularly conflict resolution to assist each individual with strategies to improve performance within a highly functional team. Perhaps, videotapes of team interactions will help healthcare professionals see their own behaviors needing change.

Further research in emotional intelligence by health profession to determine the highest need for emotional intelligence training. From the trainings in emotional intelligence, is to determine the impact this has on team function as well as patient satisfaction. Consideration of plans for the development of leadership training for healthcare professionals within longitudinal healthcare professional school curriculum as well as continuing education for current practitioners can be potential future endeavors.

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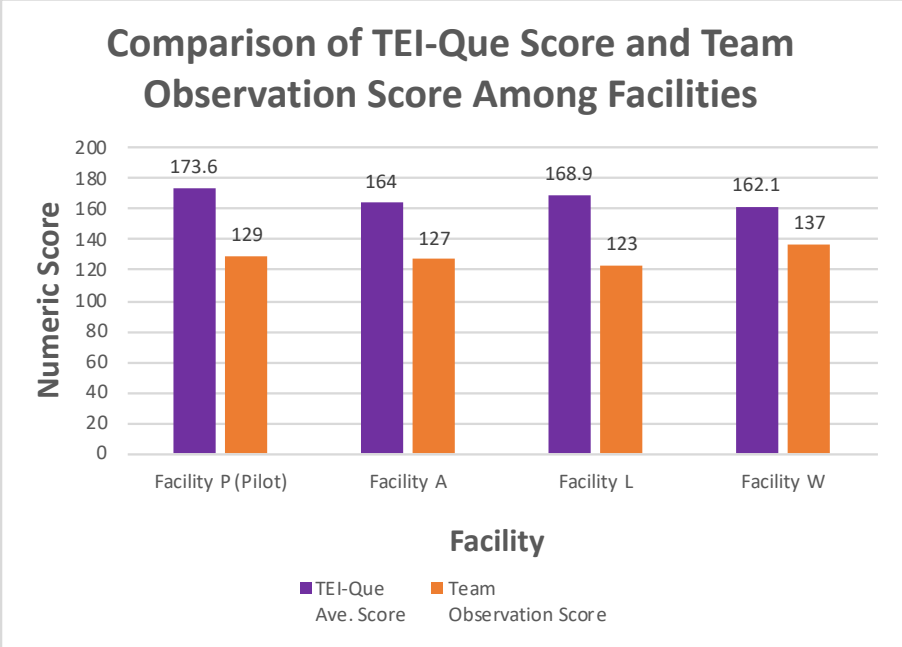
24. Images taken from Google images 2017

SUPPLEMENTARY MATERIAL



Graph 1 *Comparison of TEI-Que Score to Team Observation Among Facilities*

Appendix 1: *TEI-Que- ASF- modified*

TEI- Que – ASF – modified

Instructions: Please answer by putting a circle around the number that best shows how much you agree or disagree with each sentence below. If you strongly disagree with a sentence, circle a number close to 1. If you strongly agree with a sentence, circle a number close to 7. If you're not too sure if you agree or disagree, circle a number close to 4. Work quickly, but carefully. There are no right or wrong answers.

SPEAKER #_____ GENDER M F Years of experience_____ Profession_____
Highest Educational Level_____ (High school, college, graduate etc.)

	Disagree						Agree
1. It's easy for me to talk about my feelings to other people.	1	2	3	4	5	6	7
2. I often find it hard to see things from someone else's point of view. *	1	2	3	4	5	6	7
3. I'm a very motivated person.	1	2	3	4	5	6	7
4. I find it hard to control my feelings. *	1	2	3	4	5	6	7
5. My life is not enjoyable. *	1	2	3	4	5	6	7
6. I'm good at getting along with my colleagues.	1	2	3	4	5	6	7
7. I change my mind often. *	1	2	3	4	5	6	7
8. I find it hard to know exactly what emotion I'm feeling. *	1	2	3	4	5	6	7
9. I'm comfortable with the way I look.	1	2	3	4	5	6	7
10. I find it hard to stand up for my rights. *	1	2	3	4	5	6	7
11. I can make other people feel better when I want to.	1	2	3	4	5	6	7
12. Sometimes, I think my whole life is going to be miserable. *	1	2	3	4	5	6	7
13. Sometimes, others complain that I treat them badly. *	1	2	3	4	5	6	7
14. I find it hard to cope when things change in my life. *	1	2	3	4	5	6	7
15. I'm able to deal with stress.	1	2	3	4	5	6	7
16. I don't know how to show the people close to me that I care about them. *	1	2	3	4	5	6	7
17. I'm able to "get into someone's shoes" and feel their emotions.	1	2	3	4	5	6	7

18. I find it hard to keep myself motivated. *	1	2	3	4	5	6	7
19. I can control my anger when I want to.	1	2	3	4	5	6	7
20. I'm happy with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. Sometimes, I get involved in things I later wish I could get out of. *	1	2	3	4	5	6	7
23. I pay a lot of attention to my feelings.	1	2	3	4	5	6	7
24. I feel good about myself.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right. *	1	2	3	4	5	6	7
26. I'm unable to change the way other people feel. *	1	2	3	4	5	6	7
27. I believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. Sometimes, I wish I had a better relationship with my family. *	1	2	3	4	5	6	7
29. I'm able cope well in new environments.	1	2	3	4	5	6	7
30. I try to control my thoughts and not worry too much about things.	1	2	3	4	5	6	7

*Reverse scored

TEI-Que Scoring key: Reverse-score the following items and then sum up all responses
I don't know how to show the people close to me that I care about them. (R) 16
I often find it hard to see things from someone else's point of view. (R) 2
I find it hard to keep myself motivated. (R) 18
I find it hard to control my feelings. (R) 4
My life is not enjoyable. (R) 5
I change my mind often. (R) 7
Sometimes, I get involved in things I later wish I could get out of. (R) 22
I find it hard to know exactly what emotion I'm feeling. (R) 8
I find it hard to stand up for my rights. (R) 10
I tend to "back down" even if I know I'm right. (R) 25
I'm unable to change the way other people feel. (R) 26
Sometimes, I think my whole life is going to be miserable. (R) 12
Sometimes, others complain that I treat them badly. (R) 13
Sometimes, I wish I had a better relationship with my family. (R) 28
I find it hard to cope when things change in my life. (R) 14

*Numbers on the right correspond to the position of the items in the questionnaire.
Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF).
The TEIQue-ASF is a simplified version, in terms of wording and syntactic complexity, of the adult short form of the TEIQue. The ASF comprises 30 short statements, two for each of the 15 trait EI facets, designed to measure global trait EI. It is also possible to derive factor scores from the TEIQue-ASF, but these tend to be somewhat less reliable. For details on how to derive factor scores, go to www.psychometriclab.com The internal consistency of the global score usually exceeds .80.

Reference for the TEIQue-ASF: Petrides, K. V., Sangareau, Y., Furnham, A., & Frederickson, N. (2006). Trait emotional intelligence and children's peer relations at school. Social Development, 15, 537-547.
Please note that any commercial use of this instrument is strictly prohibited.
For more information about the trait emotional intelligence research program go to:
http://www.psychometriclab.com

Disclaimer: This form was designed for medical students thus two questions were slightly changed to address healthcare professions
 # 6 changed from classmates to colleagues
*#28 changed f**rom parents to family***

Appendix 2: *Team Observation Tool*

Observation Tool Facility#_____

	Disagree Agree						
1.A leader was clearly established.	1	2	3	4	5	6	7
2. The leader's plan for treatment was communicated to the team.	1	2	3	4	5	6	7
3. Priorities and order of actions were communicated to the team.	1	2	3	4	5	6	7
4. The team leader showed an appropriate balance between authority and openness to suggestion.	1	2	3	4	5	6	7
5. The team leader was able to maintain an overview of the situation.	1	2	3	4	5	6	7
6. Plans were adapted when the situation changed.	1	2	3	4	5	6	7
7. Each team member had a clear role.	1	2	3	4	5	6	7
8 Instructions and verbal communication explicit and directed.	1	2	3	4	5	6	7
9. Team members repeated back or paraphrased instructions and clarifications.	1	2	3	4	5	6	7
10. When directions were unclear assistance when other team members asked for repetition and clarification.	1	2	3	4	5	6	7
11. Team members shared situation assessment information.	1	2	3	4	5	6	7
12. Team members asked for each other for assistance before or during periods of task overload.	1	2	3	4	5	6	7
13. Team members offered assistance when other team members became overloaded.	1	2	3	4	5	6	7
14. Team members verbalized important clinical interventions (e.g. "I am giving epinephrine").	1	2	3	4	5	6	7
15. Task implementation was well coordinated.	1	2	3	4	5	6	7
16. Team members referred to written aids appropriately.	1	2	3	4	5	6	7
17. The team sources external assistance when appropriate.	1	2	3	4	5	6	7
18. Team members called attention to potentially hazardous actions or omissions.	1	2	3	4	5	6	7
19. Individual team members reacted appropriately when other team members pointed out their potential errors or mistakes.	1	2	3	4	5	6	7
20. When statements directed at avoiding or containing potential hazards, did not elicit a response, team members persisted in seeking a response or took action.	1	2	3	4	5	6	7
21. Disagreement or conflicts impaired team performance.	1	2	3	4	5	6	7
22. The team became fixated on an isolated indicator or occurrence to the exclusion of other important aspect of care	1	2	3	4	5	6	7
23. Team members made inappropriate assumption about the capabilities or actions of other team members	1	2	3	4	5	6	7

Weller, J., Frengley, R., Torrie, J., Shulruf, B., Jolly, B., Hopley, L., Hendersdon, K., Dzendrowskyj, P., Yee, B. & Paul, A., (2011). Evaluation of an instrument to measure teamwork in multidisciplinary critical care teams, BMJ Qual Saf 20: 216-222, doi: 10.1136/bmjqs.2010.0419

Appendix 3: *Focus Group Interview Questions*

INTERVIEW QUESTIONS

1) If your healthcare team was in a perfect world how would communication take place?
2) From your experience, how does communication affect patient care and outcomes?
3) How would you describe the interpersonal behaviors among the interprofessional team members?
4) From your perspective, at the time that the patient needs or requires professional intervention how do you made the decision about what intervention needs to be done? Who is involved, what is the process?
5) With whom and how do you share decision making?
6) What is your ideal team mix? Is rotating the leader practical? How do you rotate the team leader – skills, hierarchy? What are the pitfalls?
7) Does your team have any unwritten or written rules or norms? If so what are they?
8) How do you know your team members respect you and value your role on the team?
9) How does your team know each member's strengths and weaknesses in clinical knowledge and how does the team compensate for the weaknesses?
10) How does your team manage time and resources?

Appendix 4: *Focus Group Script*

1. Welcome to this Focus Group on Leadership in healthcare teams – this is Janice Hoffman from Western University of Health Sciences_College of pharmacy and University of La Verne La Fetra College of Education in the Organizational Leadership program, and this is Dr. Elizabeth Akhparyan a pharmacist and resident at WesternU and Los Angeles Jewish Home for the Aging we will be facilitating this Focus Group session. To decrease bias Dr. Akhparyan will be facilitating the session. Dr. Hoffman as the researcher will be taking notes. We are seeking to hear from you, ideas and thoughts on an innovated leadership model for healthcare teams.
2. There are no right or wrong answers. The interest of this research lies in helping us understand better if an innovative leadership model is applicable to your healthcare team and if the skills this team uses and outcome processes met the needs of your interprofessional team.
3. For the purpose of this research the following definitions will be utilized:

Clinical expertise –
Emotional intelligence –
Managerial skills –
Communication –
Interpersonal engagement –
Shared decision-making -

4. Don't feel that you have to agree with everyone else in the room if that's not how you really feel. There are 10(# may vary) people in this room (8 + 2) so we expect that people will have different views and opinions. It is important to learn from each of each of you and all of your perspectives represented here. If you find yourself feeling upset at any point, please feel free to step out at any time.
5. We want to you to feel comfortable saying good things and critical things and expressing true needs. That said, the responses are anonymous as speaker numbers, not your names, will be used and will be summarize when presented to administration. We are here to determine if this leadership model explains healthcare teams but are not in any particular way of thinking.
6. We ask that you be respectful of all participants and talk one at a time so everyone's view can be heard. We are tape recording this session for transcription purposes only and the audio will be discarded and destroyed once the data has been presented.
7. When you speak please say your speaker number first so the person transcribing the tape will know who is speaking "This is speaker 1"
8. All information discussed at this Focus Group is to stay in this room. While we don't mind you discussing some of the ideas you hear in this session with others, let us be respectful of others and refrain from any discussions that would identify particular statements with unique individuals or would influence others who are participating in these Focus Groups.

Appendix 5: *Agenda for Data Collection*
Agenda –XXXXX facility
Data Collection
"Simen-Schreiber Leadership Model for Healthcare Teams"

I. 1000 to 1030: Meet with Administrator (30 mins)
   a. Background of Facility - philosophy
   b. Payor mix
   c. Patient mix description
      i. ethnic mix
      ii. care level mix
   d. number of patients seen annually
   e. Patient satisfaction survey results
II. 1030 to 1100 or 1130: Observation of IDT meeting (45-60 mins)
   a. Observation tool completion (Dr. Hoffman)
III. 1115-1130 Break
IV. 1130 to 1p IDT lunch (Will bring)
   a. Consent form (all team members) → give speaker number (10 mins)
   b. Complete EQ questionnaire (all team members) (20 mins)
   c. Focus Group participation (all team members)
      i. Discussion of 10 questions by team
      ii. Dr. Akhparyan to facilitate/ Dr. Hoffman to take notes
      iii. Will be digital voice recorded