Interprofessional Student Healthcare Teams: Improving Healthcare Quality from the Ground Up

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Abstract

Objectives: To create student health care teams (HCT) consisting of a first year medical (MS), third year nursing (NS), and a graduate social work student (SWS). The Team works together for three semesters to develop communications skills for giving and receiving information and understanding the roles and responsibilities each has in patient care. This study assessed student perceptions related to interprofessional communication and collaboration and the effect of the HCT project on those perceptions.

Materials and Methods: The HCT is assigned a community-dwelling patient and completes prescribed assignments each semester. Teams meet periodically and discuss their findings and plans about the patient and practice communication and collaboration skills. Two assessment tools were used for evaluation for medical and nursing students: Jefferson Attitudes Scale (1) and Collaboration and Satisfaction about Care Decisions (adapted with permission) (2). Students were assessed at beginning and end of the program. Two cohorts have started the program, and one has completed.

Results: There were significant differences in item mean score of the two assessment tools between MS and NS. Students rated reality of collaboration lower than ideal. NS were less satisfied with communication and collaboration than MS.

Conclusions/Future Directions: We changed our thinking from HCT being the intervention to it being the context for the intervention. For cohort 3, we have instituted the TeamSTEPPS program http://dodpatientsafety.usuhs.mil/teamstepps, presentations on roles and responsibilities, a HCT Handbook, mandatory team meetings, and evaluation instruments to capture data from SWS as well as MS and NS.

References: 1.Hojat, M. et. al., Eval. Health Prof. 22: 208-220 (1999). 2. Bagg, J.G., J. Adv. Nursing, 20: 176-182 (1994).

Background

The evolution of the interprofessional Student Health Care Team began in the 1990s with an Indiana University School of Medicine- Northwest project called the Chronic Patient Project. First year medical students were assigned a chronic patient by their primary care preceptors. The objectives of the project were to have a student interact with a real patient with a chronic health problem, learn how the patient and patients' family dealt with chronic illness, and help the student become a patient advocate. Patient confidentiality was assured. Students obtained consent from the patient to take a medical history, perform a physical exam and periodically visit the patient and sometimes the patient's family. Students would follow this patient over a period of three semesters and make reports to their peers and faculty on the medical history, physical exam and a final presentation on what they learned from this project.

With the construction of a new building on our campus housing all the health sciences between 2004 and 2006, and the establishment of the College of Health and Human Services in 2008, the School of Medicine, School of Nursing and Division of Social Work began a pilot Student Health Care Team (HCT) project in the spring of 2008 with two teams. The success of this pilot project led us to roll out the project the next year involving the first cohort of 8 social work, 17 nursing and 18 medical students. The second cohort began in 2009 with 12 social work, 24 nursing and 24 medical students.
The major objectives of the student HCT are to develop communications skills that are necessary for receiving and relaying information to other members of the team and to develop an understanding of the roles of each member of a healthcare team and how the members of the team contribute to the care, and quality of life of a chronically ill patient.

Methods

Logistics: The HCT consists of a freshman medical student (MS), a third year nursing student (NS) and a graduate social work student (SWS). Since the program is voluntary for NS and SWS and there are fewer SWS students than all others in the CHHS, a SWS may be part of more than one team. Patients are obtained from a long term care facility (LTC) nearby. We specify that patients must be coherent in order to take part in this project. A contract/consent form was developed and IRB approval was obtained for this project. The project occurs over three semesters – year 1 spring, and year 2 fall and spring. Students meet at the LTC facility in early January and get to know each other and are assigned a patient by a LTC facility nurse. Students make their first visit to the patient as a team, greet the patient, briefly explain the project and contract/consent form and obtain the necessary signatures. A copy of this contract stays at the LTC facility and a copy is kept by each member of the team. A course management system, Oncourse, is used to send out assignments, discussion sessions, chat rooms etc. Students visit patient at least once every two months and every month if possible.

Assignments: Assignments are as follows: MS semester 1 (S1) complete patient history and make presentation to peers and faculty, S2 complete physical exam and make presentation to peers and faculty, S3 team presentation; NS Elder reminiscence paper, S2 nursing plan, and S3 team presentation; SWS S1 biopychosocial assessment, S2 progress notes, and S3 team presentation. Mandatory team meetings are scheduled each semester and other meeting can occur whenever team members have information to share.

Presentations are made early in the program to all participants on the role of a physician, a nurse and a social worker in a health care team. Students use Situation, Background, Assessment, Recommendation and Request (SBAR) when communicating critical information about the patient to their team members.

Evaluation: Evaluation forms have been developed for the two MS presentations and the team presentation. In addition, at the beginning and end of the project, two questionnaires, The Jefferson Scale of Attitudes toward Physician Nurse Collaboration (JAS) and the Baggs Collaboration and Satisfaction about Care Decisions-R (Baggs) were administered to both MS and NS. We are still looking for a suitable instrument for all three disciplines.

Contract/Consent Form

Interprofessional Health Care Team Consent and Disclosure Form

CONFIDENTIAL

I, the undersigned, _____, a patient of _____, participating in the Indiana University Northwest College of Health and Human Services Interprofessional Health Care Team program, hereby voluntarily and knowingly agree to give my express consent to:

1. Allow a medical student to participate in my medical care for a period of up to two years under the supervision of my regular physician.
2. Be interviewed and examined by the medical student.
3. Allow the student to call me on the telephone and arrange times to meet with me to discuss my illness.
4. Be allowed access to my medical records. I understand that they will keep all information confidential.

In addition,

1. It is understood that the student will not use any personal identifiers in documenting his/her contact with me in the course of this educational experience, and that the information I provide
2. I understand that my interaction with the student is for educational purposes only, and in no way should I rely on the student for treatment.
3. If my physical or emotional problems arise, I should contact my primary care physician for diagnosis and treatment.
4. If any problems concerning the medical student's conduct or performance arise, I should contact Indiana University School of Medicine - Northwest at (219) 981-4245.

_____
Signature of Chronic Patient

_____
medical student

Date: _____

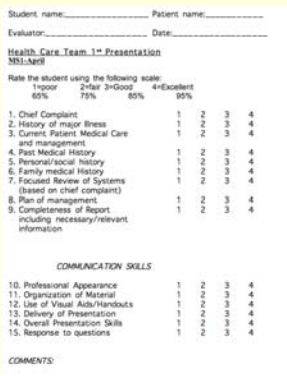
Methods

Evaluation Forms Administered at Beginning and End of the Project

JEFFERSON SCALE OF ATTITUDES TOWARD PHYSICIAN NURSE COLLABORATION

Collaboration and Satisfaction about Care Decisions-R (CSACD-R)

Evaluation Form – Medical History Presentation


Student name:_____ Patient name:_____

Evaluator:_____ Date:_____

Health Care Team 1st Presentation
MS1-April

Rate the student using the following scale:
1=poor 2=fair 3=Good 4=Excellent
65% 75% 85% 95%

1. Chief Complaint	1	2	3	4
2. History of major illness	1	2	3	4
3. Current Patient Medical Care and management	1	2	3	4
4. Past Medical History	1	2	3	4
5. Personal/social history	1	2	3	4
6. Family medical History	1	2	3	4
7. Focused Review of Systems (based on chief complaint)	1	2	3	4
8. Plan of management	1	2	3	4
9. Completeness of Report, including necessary/relevant information	1	2	3	4

COMMUNICATION SKILLS

10. Professional Appearance	1	2	3	4
11. Organization of Material	1	2	3	4
12. Use of Visual Aids/Handouts	1	2	3	4
13. Delivery of Presentation	1	2	3	4
14. Overall Presentation Skills	1	2	3	4
15. Response to questions	1	2	3	4

COMMENTS:

Methods

Evaluation Form for Team Presentation

Interprofessional Health Care Team Presentations Evaluation

Team Members: _____ Med Student
_____ Nursing Student
_____ Social Work Student

	YES	NO
Team members begins and ended presentation on time?		
Team members maintained a professional appearance and communication style?		
Team members addressed the physical, emotional, and financial impact of illness on a patient's life* (all three must be addressed)		
Information from the team members was cohesive with a seamless articulation and little unnecessary overlap?		
Discussion by the **TEAM MEMBERS** included:		
☐ What they learned about the process		
☐ What they learned from the patient		
☐ What they learned from each other		
☐ Positive/negative feedback from the three sessions		
☐ Overall thoughts about this student team project and any suggestions for future		
☐ Demonstrated commitment to the project		
For the **MEDICAL STUDENTS** their presentation included:		
☐ Patient name, age, sex		
☐ Chief complaint or illness		
☐ Current medical status of the patient		
☐ Plan for the patient		
For the **NURSING STUDENTS** their presentation included:		
☐ A brief oral history of the patient		
☐ A comprehensive nursing care plan highlighting the implemented interventions with evaluation		
For the **SOCIAL WORK STUDENTS** their presentation included:		
☐ A detailed documented bio-psychosocial assessment		
☐ A brief oral summary of patient's psychosocial stressors		
☐ A comprehensive social work plan highlighting interventions used to address psychosocial stressors		
Comments:		
Evaluator:		

Results

(JAS) describes what should be – has 15 items 4 point Likert Scale 1 =strongly diagree 4 strongly agree (range 15-60) and 2. Baggs describes what is – has 10 items and a 7 point Likert Scale 1=Strongly Disagree/Dissatisfied 7= Strongly Agree/Satisfied range 10-70. Both instruments were administered before the project began T1 and at the end of the project T2.

Student Group	JAS T1	Baggs T1	JAS T1	Baggs T2
Medical Students N=18	51.12	50.64	46.58	48.73
Nursing Students N=17	54.55	45.41	54.42	49.35

Although the results are not statistically significant, the JAS and Baggs instruments indicate for MS a small decrease in both scores between T1 and T2., essentially no change for NS in the JAS between T1 and a small increase in the Baggs between T1 and T2. The second cohort in this study has not completed their instruments for T2 at the time this poster was made. We are still looking for a suitable instrument for SWS students and may end up designing our own instrument.

Discussion and Conclusions

We started this project to attempt at an early stage in their education to get MS, NS, and SWS to work as a team, to understand their individual roles as team members, to respect each others roles and responsibilities, and to improve patient care and outcomes. Obviously our results indicate that we have not yet accomplished these goals. Some of the problems we have encountered are 1. meshing schedules of the three students for team meetings, 2. patients dropping out of the program, and 3. patients developing dementia during the project.
We have instituted the Team STEPPS (see abstract) to improve team communication, role recognition and teamwork for patient care and safety, increased the number of presentations by health care professionals on their roles and responsibilities as a team member, and made mandatory team meetings in each semester to force students to work around their schedules to meet and discuss what they have learned and increase their team communication skills. Ultimately we would like to morph this into an interdisciplinary course for all three disciplines within the CHHS of IUN.