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#### **Abstract**

**Background:** Core clinical competencies have been established at the graduate and post-graduate levels by organizations such as the Association of American Medical Colleges (AAMC) and the Accreditation Council for Graduate Medical Education (ACGME). However, some clinical competencies are less well addressed by a traditional inpatient-based medical school curriculum. These include those related to continuity of care in the outpatient setting, and to healthcare delivery, structure, and financing. The purpose of this study is to determine if the addition of voluntary extracurricular clinical activities, specifically, a student-run outpatient clinic, to the traditional medical school curriculum can help students to practice and thus achieve proficiency in underrepresented aspects of the core competencies.

**Methods:** In 2010 we administered an online 11-question survey to current Mount Sinai School of Medicine (MSSM) students in which they self-assessed their exposure, both in formal curricular experiences and extracurricular clinical activities, to clinical tasks and activities related to 8 core competencies. Students reported how often they perform the clinical tasks in both inpatient and outpatient settings or with pediatric and adult patients, and also how often they participate in 29 extracurricular activities, including MSSM's student-run clinic, the East Harlem Health Outreach Partnership (EHHOP). Data from 126 completed surveys were analyzed by students' curricular level (preclinical v. clinical) and level of participation in each extracurricular activity; associations were sought between participation in the activity and exposure to the clinical tasks under study.

**Results:** For preclinical medical students, EHHOP participation was associated with statistically significant, time commitment-dependent increases in exposure to 7 of the 15 clinical tasks in the target exposure domain (adult patients in the outpatient setting). There was one statistically significant association between EHHOP participation and exposure to a task in the control domain (pediatric patients and/or the inpatient setting), specifically working with an interdisciplinary team in the inpatient setting. Clinical students also reported significant, participation-dependent increases in exposure to 11 of 15 tasks in the target domain. There were no significant associations between EHHOP participation and control domain scores. For the 5 other extracurricular activities with large enough membership to allow similar analysis, only 12 (of a possible 208) significant results were obtained; none occurred consistently within a given domain.

**Conclusions:** Volunteering at an extracurricular, school-sponsored ambulatory clinic for uninsured patients was significantly associated with exposure to the core competencies under study. No pattern of association was observed for the 5 other activities with sufficient membership to allow similar analysis. Despite limitations inherent in the nonrandomized cohort design, the data warrant further study of the pedagogical efficacy of student-run free clinics.

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#### Introduction

Educational theory and practice supports the establishment of learning objectives to help design, guide, and implement educational programming.1 As such, the Association of American Medical Colleges (AAMC) and the Accreditation Council for Graduate Medical Education (ACGME) have established core clinical competencies at both the graduate and post-graduate levels. The AAMC Learning Objectives are grouped under the four themes of altruism, knowledge, skill, and duty.1 The ACGME has established analogous General Competencies in the areas of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.<sup>2</sup> While some clinical competencies are well addressed by the traditional inpatient-based medical school curriculum, others are less well addressed.

In the 2011 AAMC Medical School Graduation Questionnaire, an annual survey administered to all American and Canadian fourth-year medical students, several areas of instruction were identified as "inadequate" by participants, including: care of ambulatory patients (by 10.0% of medical school seniors), health maintenance (10.0%), longterm healthcare (19.7%), and continuity of care (18.1%); health policy (41.1%) and medical economics (63.8%); and healthcare disparities (13.3%).3 Under the clinical competencies put forth by the AAMC and ACGME, competency in these areas is mandated at the graduate and post-graduate levels. Given this discrepancy, there is both need and opportunity to develop new modalities for teaching underrepresented core competencies in the graduate medical curriculum.

The Mount Sinai School of Medicine (MSSM) is affiliated with the Mount Sinai Hospital, a major academic medical center in New York, New York. Its catchment area includes East Harlem, which ranks in the bottom 10 of 41 New York City neighborhoods in most major health indices and has sizable minority and immigrant populations. One third of East Harlem residents rate their own health as "poor" or "fair" (compared to 14% nationally), and an estimated 27% have no health insurance. In 2004, MSSM students, with faculty and administration support, established the East Harlem Health Outreach Partnership (EHHOP), a student-organized, faculty-supervised outpatient clinic for uninsured adults residing in East Harlem.

The EHHOP clinic operates on Saturdays, with students performing all administrative and clinical tasks under the supervision of two volunteer physician preceptors. On clinic day, patients are seen by clinical teams composed of one first- or secondyear student and one third- or fourth-year student. These teams perform complete histories and physical exams and then present cases to preceptors. Preceptors see every patient with the clinical team to review pertinent parts of the history, confirm physical exam findings, and demonstrate new interviewing or exam techniques. Students perform all office procedures (including phlebotomy, gynecological exams and Pap smears, electrocardiography, vaccinations, and tuberculosis skin testing) under the supervision of the attending physicians and fourth-year medical students who have been certified in these procedures. Clinical teams formulate treatment plans in collaboration with preceptors, and medications are distributed, at no cost to patients, by the Mount Sinai employee pharmacy.

At every clinic session, a salaried social worker provides psychosocial support and, when possible, helps transition eligible patients to public health assistance programs. Additionally, EHHOP has expanded to include stand-alone ophthalmology, mental health, and gynecological clinics operating once a month to which the primary medical clinic can refer. EHHOP patients also can be referred to specialists through Mount Sinai's charity care organization and are assisted in the process by students trained in the referral process. In addition, access to nutritionists and Mount Sinai Hospital diabetes support groups are available.

During the week, students carry the EHHOP cell phone to schedule appointments and answer questions. Students follow up on labs and tests, and, through the electronic medical record, Epic, review results with that week's preceptors. Teaching Seniors, fourth-year medical students trained in teaching and familiar with the EHHOP clinic, work with faculty program directors to ensure quality and continuity of care. Students also raise funds from internal and external sources to cover EHHOP's \$40,000 annual budget. In 2010 alone, EHHOP saw 157 different patients in 624 clinic visits.

Given the wide range of clinical and organizational tasks performed by students involved in EHHOP, it is our hypothesis that participating students, compared to their non-participating peers, have significantly greater exposure to and experi-

ence with AAMC- or ACGME-mandated core competencies in the areas of outpatient preventive care, healthcare financing and delivery, and advocacy for the underserved.

#### Methods

## Study Design

We developed an 11-question survey that asked students to self-assess, on a 5-point Likert scale ranging from "rarely" to "frequently," how often they have performed certain clinical activities or tasks related to 8 core competencies; a 6th option, "never or not applicable" was also provided. Each question was formulated as a two-, three-, or four-item matrix, 9 of which required the respondents to assess their performance of the same clinical task in different domains (for instance, at inpatient and outpatient sites, or with adult and pediatric patients). In total, the survey contained 26 items in 11 question matrices (Appendix 1).

Demographic information was collected, including gender and current medical school year, as well as the last 4 digits of respondents' social security numbers to prevent duplication of responses. Students were also asked to report their participation in 29 MSSM Student Council-approved extracurricular activities; for each activity, students were required to select one of the following participation categories: never, 1-2 hours per month, 3-5 hours per month, 6-10 hours per month, 11-17 hours per month, or 18+ hours per month. Space was also provided for respondents to write in any activities not included in the list.

In March 2010, all students at MSSM received an e-mail invitation to complete the online survey distributed by the MSSM student list-serv. Students were informed that the study was designed to evaluate the impact of extracurricular activities on clinical experience in medical school. The survey was open for 6 weeks.

One hundred thirty-eight responses were collected, totaling approximately 25% of the student body. Of these, twelve were discarded for incompleteness or duplication. A total of 126 surveys were included in the final analysis.

The project was submitted to the MSSM Institutional Review Board and was exempted from full review.

## Statistical Analysis

All data were analyzed separately by curricular level. Preclinical students were defined as all degree candidates in the first (MS-1) or second (MS-2) year of the M.D. curriculum, as well as students engaged in the research portion of the combined M.D.-Ph.D. program (the Medical Scientist Training Program, MSTP). Clinical students were defined as all degree candidates in the third (MS-3) or fourth (MS-4) year of the M.D. curriculum, including MSTP students rejoining the M.D. portion of their training.

For all 29 extracurricular activities, data were further stratified by level of student involvement: non-participator (0 hours per month), occasional participator (1-5 hours per month), and committed participator (6+ hours per month). Therefore, for each extracurricular activity, 6 groups of data were analyzed: preclinical non-participator, preclinical occasional participator, preclinical committed participator, clinical non-participator, clinical occasional participator, and clinical committed participator. Only activities with at least 5 participants per participation-strata were analyzed.

For all 26 survey items, the mean Likert score for all respondents in each participation stratum was calculated. For each survey item, p-values were calculated across participation strata as a three-way comparison of the scores given by non-participators, occasional participators, and committed participators. Because the data were not normally distributed, nonparametric tests for significance were utilized; within-matrix p-values were calculated by the Wilcoxon signed ranks test, and across-strata p-values by the Kruskal-Wallis test.

### **Results**

## Survey Respondents

Respondent characteristics are presented in Table 1. Overall, 57.1% of respondents were female, 42.9% of respondents were in their preclinical years, and 57.1% were in their clinical years. In terms of participation levels, 23.8% were EHHOP non-participators, 46.8% were EHHOP occasional participators, and 29.4% were EHHOP committed participators.

## Extracurricular Activity Participation

Extracurricular activities, ranked in descending order by respondents' participation, are given in Table 2.

Table 1. Characteristics of Respondents

Characteristic	All Survey Respondents (N=126)	EHHOP Non-Participator (N=30)	EHHOP Occasional Participator (N=59)	EHHOP Committed Participator (N=37)
Gender, no. (%)				
Female	72 (57.1)	16 (53.3)	34 (57.6)	22 (59.4)
Preclinical	33	8	13	12
Clinical	39	8	21	10
Curricular Level, no. (%)				
Preclinical	54 (42.9)	9 (30.0)	25 (42.3)	20 (54.1)
MS-1	19	1	10	8
MS-2	29	7	12	10
MSTP	6	1	3	2
Clinical	72 (57.1)	21 (70.0)	34 (57.6)	17 (45.9)
MS-3	38	11	18	9
MS-4	34	10	16	8

Table 2. Extracurricular Activities, Ranked by Level of Student Participation

	Activity	Number of Participating Students
1	East Harlem Health Outreach Partnership (EHHOP)	104
2	Community Health Fair	78
3	Shadowing a practicing physician	64
4	Medical Spanish	60
5	Student Government	45
6	MedDocs	24
6	Medical Students Making Impacts (MSMI)	24
8	World AIDS Day	17
9	American Medical Student Association (AMSA)	16
9	Medical Mandarin	16
9	Sexual Health Group	16
9	Students for Equal Opportunity in Medicine (SEOM)	16
13	Liver Transplant Team	14
13	Med Visits Peds	14
15	Asian Pacific American Medical Student Association (APAMSA)	13
15	Prenatal Partnership	13
17	MedStart	12
18	Remedy	11
19	MSSM4CHOICE	10
20	Human Rights Clinic	9
20	Kidney Kids	9
20	MSSM4UHC	9
23	Physicians for Human Rights (PHR)	8
24	Mount Sinai Visitors	5
25	Sexual Assault and Violence Program (SAVI)	4
26	American Medical Women Association (AMWA)	3

Table 3. Survey Results for EHHOP Participators

Survey Question	Preclinical p-value	Clinical p-value
Question 1: How often have you felt involved in or responsible for the DIAGNOSIS and	d/or MANAGEMENT of:	
a CHILD in the INPATIENT setting?	0.437	0.091
a CHILD in the OUTPATIENT setting?	0.660	0.182
an ADULT in the INPATIENT setting?	0.225	0.325
an ADULT in the OUTPATIENT setting?†	0.069	0.098
Question 2: How often have you ORDERED LABS OR TESTS and then FOLLOWED UP	THE RESULTS for:	
any patient in the INPATIENT setting?	0.446	0.547
any patient in the OUTPATIENT setting?†	0.119	0.015*
Question 3: How often have you performed age-appropriate GENERAL HEALTH MAII	NTENANCE screening f	or:
an ADULT in the OUTPATIENT setting (mammography, Pap smear, PSA, lipid profile)?†	0.744	0.028*
a CHILD or ADOLESCENT in the OUTPATIENT setting (vaccinations, bike helmet use, STD screening)?	0.512	0.250
Question 4: How often have you ordered disease-specific MONITORING TESTS (for expatient) for:	ample, hemoglobin A1	c for a diabetic
an ADULT in the OUTPATIENT setting?†	0.023*	0.007*
an ADULT in the INPATIENT setting?	0.706	0.140
Question 5: How often have you considered a patient's INSURANCE STATUS when:		
ordering an INVASIVE PROCEDURE (endoscopy, colonoscopy, biopsy)?†	0.473	0.185
prescribing a MEDICATION (generic v. brand-name drug)?†	0.251	0.030*
ordering a RADIOGRAPHIC TEST (X-ray, CT scan, MRI)?†	0.440	0.037*
Question 6: How often have you considered a drug/test COST when:		
ordering an INVASIVE PROCEDURE (endoscopy, colonoscopy, biopsy)?†	0.162	0.172
prescribing a MEDICATION (generic v. brand-name drug)?†	0.024*	0.007*
ordering a RADIOGRAPHIC TEST (X-ray, CT scan, MRI)?†	0.186	0.221
Question 7: How often have you attempted to obtain a test or procedure for a patien would not cover the test:	nt who is UNINSURED,	or whose insuranc
in the OUTPATIENT setting?†	0.001*	0.013*
in the INPATIENT setting?	0.346	0.462
Question 8: How often have you helped an appropriate patient APPLY FOR PUBLI Health Plus, WIC, disability/SSI, home health aide), either by filling out forms yourself of for assistance:		
in the OUTPATIENT setting?†	0.012*	0.004*
in the INPATIENT setting?	0.346	0.462
Question 9: How often have you considered/known about a patient's IMMIGRATION S	STATUS in formulating r	management plan
in the INPATIENT setting?	0.248	0.058
in the OUTPATIENT setting?†	0.024*	0.000*
Question 10: How often have you acted as a teacher, in a clinical setting, to a more ju	nior student:	
in the INPATIENT setting?	0.257	0.772
in the OUTPATIENT setting?†	0.032*	0.000*
Question 11: How often have you worked with an interdisciplinary care team (social vof a patient?	vork, psych, nutrition) i	n the managemer
in the OUTPATIENT setting?†	0.003*	0.032*
in the INPATIENT setting?	0.047*	0.695

P-values, calculated by the Kruskal-Wallis test, compare the mean Likert scores for each question item across all three participation strata (non- v. occasional v. committed participator). †Question items pertaining to the exposure (EHHOP); \*p<0.05.

Survey Results with Data Stratified by EHHOP Participation

For all students, participation in EHHOP was associated with significant increases in time spent performing clinical tasks in the outpatient domain (Table 3). In general, time spent performing these tasks in the inpatient domain was unrelated to EHHOP participation, with the inpatient exposure scores of preclinical students being uniformly low and those of clinical students being uniformly high.

For preclinical medical students, EHHOP participation was associated with statistically significant (p<0.05), time commitment-dependent (lowest scores given by non-participators and highest scores by committed participators, with occasional participators' scores in between) increases in time spent in 7 of the 15 clinical tasks in the target exposure domain (adult patients in the outpatient setting). There was one statistically significant association between EHHOP participation and exposure to a task in the control domain (pediatric patients and/or the inpatient setting), specifically working with an interdisciplinary team in the inpatient setting.

Clinical students also reported statistically significant, time commitment-dependent increases in contact to 11 of 15 tasks in the target domain. There were no significant associations between EHHOP participation and control domain scores.

## Survey Results with Data Stratified by Other Extracurricular Activities

Five other extracurricular activity groups had large enough membership to allow similar analysis: Community Health Fair (an organization that plans an annual health fair for the East Harlem community), Medical Students Making Impacts (MSMI; a student group that organizes servicelearning medical and surgical trips to underserved areas of the United States and abroad), Medical Spanish, special interest groups (i.e. Liver Transplant Team), and Student Government. Of these, only 12 of a possible 208 significant results (5.8%) were obtained; none occurred consistently within a given domain. Only 9 analyses (4.3%) were both significant and time commitment-dependent. Only 6 analyses (2.9%) were significant, time commitment-dependent, and in the adult outpatient domain.

Analysis of the Community Health Fair results yielded time-dependent significant results for clinical students to questions regarding consider-

ation of a drug/test cost when prescribing a medication (p=0.006) and when ordering an invasive procedure (endoscopy, colonoscopy, biopsy) (p=0.022). MSMI analysis revealed time-dependent statistically significant results for the preclinical group to questions regarding consideration of drug/test cost when ordering an invasive procedure (p=0.044), how often the student had helped a patient apply for public assistance (p=0.047), and how often immigration status has been considered in formulating management plans in the outpatient setting (p=0.034). There were no statistically significant MSMI results for the clinical group. Medical Spanish result analysis yielded no statistically significant results for the clinical group and two statistically significant time-dependent results for the preclinical group referring to how often the student has been involved in the management of an adult in the inpatient setting (p=0.003) and the outpatient setting (p=0.014). There were no statistically significant results in analysis of the special interest groups or Student Government.

#### **Discussion**

Volunteering at an extracurricular, school-sponsored, student-organized ambulatory clinic for uninsured patients was significantly associated with exposure to the core competencies under study. EHHOP preclinical committed participators reported significantly greater outpatient than inpatient exposure to the studied tasks; conversely, clinical non-participators reported significantly less outpatient than inpatient experience. Clinical EHHOP occasional and committed participators were not only more likely to have more outpatient exposure, exemplified by more experience in general health maintenance screening and diseasespecific monitoring, but also were more likely to take into account immigration status and costs of healthcare in management plans, work with an interdisciplinary team, and act as teachers to more junior students. No pattern of association was observed for the five other extra-curricular activities with sufficient membership to permit analysis.

Teaching outpatient medicine can be particularly challenging, as it does not conform readily to the traditional block system of clinical clerkships employed by most medical schools. In his thematic review of the literature, Dr. David M. Irby suggests "education in ambulatory care is characterized by variability, unpredictability, immediacy, and lack of continuity." In a recent American College of Physicians position paper, the authors

identified "ambulatory experiences in well-functioning practice environments" as a necessary element of the graduate medical curriculum; other objectives included the need to "expose students to enthusiastic role models" and to "optimize the use of nonrequired clinical time . . . to translate knowledge into best practice...and prepare for residency training."6 As a learning environment, student-run free clinics (SRFCs) fulfill all of these goals. In the SRFC, students learn to navigate the healthcare system and advocate for their patients in a hands-on, well-supervised, education-oriented setting with attending physicians who are enthusiastic, involved role models to students. SRFCs may be successful in reinforcing core competencies in undergraduate medical education in part because they provide early, longitudinal learning experiences and autonomy in the care of patients in a cost-conscious, practice-based arena.

The early exposure to patients and longitudinal nature of involvement are important aspects of the SRFC as a venue for ambulatory medical education. Early clinical experience has been shown to help medical students acquire a range of subject matter skills and provide relevant context for their learning.<sup>7</sup> Similarly, longitudinal experiences have been studied extensively, particularly in ambulatory primary care clerkships, and have been found to have benefits compared to traditional block primary care clerkships. In Prislin, et al.'s research on longitudinal ambulatory primary care clerkships at five different medical schools, results showed that students perceived greater enhancements of interpersonal communication and clinical skills through the longitudinal experience.8 In his review of over 101 studies, Irby found that students preferred longitudinal teaching programs that offer continuity with patients and preceptors.5 While curricular initiatives have begun to emphasize early, longitudinal exposure (for example, MSSM's Longitudinal Care Experience pairs 1st year medical students with a patient and preceptor to follow over the preclinical years), SRFCs uniquely immerse students in all aspects of patient care, including clinical skills, practice management, health navigation, and quality improvement.

SRFCs as a learning environment also help encourage learning autonomy. Autonomy is the concept that describes "an interpersonal orientation in which persons in positions of authority (such as educators or clinicians) take the perspectives of others into account, provide relevant information and opportunities for choice, and encourage oth-

ers to accept more responsibility for their own behavior."9 In a review of the literature by Williams and Deci in 1998, it was found that supporting autonomy in medical education led to students with greater conceptual understanding, lower anxiety, greater interest in learning, and higher self-esteem.9 The SRFC promotes autonomy as students are encouraged to take responsibility for their patients, including creating a clinical plan that is then discussed with precepting physicians. The hands-on aspect of the SRFC is underscored as students interview and examine patients, draw labs, perform procedures, help navigate referral processes, and interact with multidisciplinary providers to provide care to patients. Adult learning theory also suggests that adults' learning experiences are enhanced when they are self-directed and internally motivated, engendering in the learner a sense of responsibility for outcomes.10

There are many reasons why the AAMC and AC-GME are right in mandating outpatient clinical competencies. Chronic disease is mostly managed in the outpatient setting, and many physicians spend significant time in the ambulatory setting. Additionally, as prevention of disease becomes paramount in a healthcare system with rising costs of caring for those with end-stage disease, it has taken center stage in medical education. In the preclinical years, disease prevention is often featured in the medical curriculum right along with the pathophysiology of disease. However, in the clinical years, the traditional inpatient curriculum does not reflect this recent shift towards preventive medicine. Thus, it becomes more and more important for medical graduates to attain proficiency in these underrepresented core clinical competencies. The SRFC is a novel method of teaching these competencies.

Limitations of this study include that it is an observational study and that because it was a voluntary survey, there is the possibility of over-representation of EHHOP participants via a response bias. Additionally, in this study we cannot equate exposure with quality. Students are exposed to the ambulatory setting, continuity of care, healthcare systems, and healthcare financing but the quality of that experience will vary based on the individual.

Despite these limitations, greater self-reported exposure to these core competencies is directly correlated with EHHOP participation. Comparable associations were not observed for any other extracurricular activity, even those that might be expected to draw participants with similar interests

as those who participate in EHHOP. These preliminary data suggest that, for medical schools with sufficient interest among both faculty and students, a school-sponsored, student-organized, and faculty-supervised outpatient clinic for underserved patients can both provide a valuable service to the community and create an effective learning environment in which to focus on core competencies underrepresented in a traditional, inpatient-based medical school curriculum.

#### Disclosures

The authors have no conflicts of interest to disclose.

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## Appendix 1. Survey Questions

Question 1: How often have you felt involved in or responsible for the DIAGNOSIS and/or MANAGEMENT of:

a CHILD in the INPATIENT setting?

a CHILD in the OUTPATIENT setting?

an ADULT in the INPATIENT setting?

an ADULT in the OUTPATIENT setting?

Question 2: How often have you ORDERED LABS OR TESTS and then FOLLOWED UP THE RESULTS for:

any patient in the INPATIENT setting?

any patient in the OUTPATIENT setting?

Question 3: How often have you performed age-appropriate GENERAL HEALTH MAINTENANCE screening for:

an ADULT in the OUTPATIENT setting (mammography, Pap smear, PSA, lipid profile)?

a CHILD or ADOLESCENT in the OUTPATIENT setting (vaccinations, bike helmet use, STD screening)?

Question 4: How often have you ordered disease-specific MONITORING TESTS (for example, hemoglobin Alc for a diabetic patient) for:

an ADULT in the OUTPATIENT setting?

an ADULT in the INPATIENT setting?

Question 5: How often have you considered a patient's INSURANCE STATUS when:

ordering an INVASIVE PROCEDURE (endoscopy, colonoscopy, biopsy)?

prescribing a MEDICATION (generic v. brand-name drug)?

ordering a RADIOGRAPHIC TEST (X-ray, CT scan, MRI)?

Question 6: How often have you considered a drug/test COST when:

ordering an INVASIVE PROCEDURE (endoscopy, colonoscopy, biopsy)?

prescribing a MEDICATION (generic v. brand-name drug)?

ordering a RADIOGRAPHIC TEST (X-ray, CT scan, MRI)?

Question 7: How often have you attempted to obtain a test or procedure for a patient who is UNINSURED, or whose insurance would not cover the test:

in the OUTPATIENT setting?

in the INPATIENT setting?

Question 8: How often have you helped an appropriate patient APPLY FOR PUBLIC ASSISTANCE (Medicaid/Medicare, Child Health Plus, WIC, disability/SSI, home health aide), either by filling out forms yourself or by referring the patient to a social worker for assistance:

in the OUTPATIENT setting?

in the INPATIENT setting?

Question 9: How often have you considered/known about a patient's IMMIGRATION STATUS in formulating management plans:

in the INPATIENT setting?

in the OUTPATIENT setting?

Question 10: How often have you acted as a teacher, in a clinical setting, to a more junior student:

in the INPATIENT setting?

in the OUTPATIENT setting?

Question 11: How often have you worked with an interdisciplinary care team (social work, psych, nutrition) in the management of a patient?

in the OUTPATIENT setting?

in the INPATIENT setting?