



Impact on Career
Intent of
Undergraduate Health
Professions Students

excellence

Service Learning in Medically Underserved Primary Care Clinics

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Introduction

- USA spends \$1.3 trillion each year on health care
- 39 million Americans lack basic health care coverage
 - 8.4 million children
- Government and community agencies are focused on achieving 100% access to primary care
- Med school applications are decreasing
- Residency graduates not practicing in underserved areas



Introduction

- Factors related to increasing student interest in primary care
 - Having primary care physician role model (Basco; Connelly; Harris; Schwartz)
 - Having interest in people skills (Newton)
 - Career intentions at entrance to medical school (Senf)
 - Having societal orientation (Wright)



Introduction

- Factors related to increasing student interest in primary care
 - Having belief that all should receive healthcare (Lawson)
 - Identification of access to health care as a major problem (Lawson)
 - Rural background associated with retention in rural areas (Brooks; Senf; Ward)



Purpose

- The purpose of the project was to demonstrate that a well designed service learning course for undergraduate students could increase the percentages of students who would:
 - consider primary health care professions
 - consider practicing in underserved areas
 - understand the issues facing underserved populations



Our Solution

MEDS400

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What is MEDS400?

- 3 credit pass/fail service learning course
 - Place undergraduate students in medically underserved clinics
 - Wishard agreed to train all students as certified volunteers
 - Patient privacy
 - Safety
 - Health screening
 - Background checks



More Details...

- “Focused Shadowing” to learn, reflect, discuss
 - Medical records
 - Front desk services
 - Nursing services
 - Financial counseling services
 - Dietician services
 - Social work services
 - Physician services



More details...

- Forum discussions
 - Weekly readings
 - Post responses on-line
- Service Learning project
 - Three hours of weekly service
 - Supervised by project supervisors at the clinic



More Details...

- Summary presentation to peers about experiences
- Reflective paper
 - Write about experience working with underserved populations
 - Reflect upon the personal value of the course



How?...you ask

- Independent research assistant developed **qualitative** categorical descriptors for recurring themes in
 - Weekly forum discussions
 - End of semester reflective papers
- **Quantitative** comparison analysis of Pre- and Post- course surveys
- Case reports of continued service and pursuit of health careers



Number of Students

- 56 students completed the course analysis since fall 2003 (4 semesters)
- Qualitative data available on all 56
- Quantitative pre- and post- data available on 38 students (one semester missing)



Description of Students

- Majority of students junior-class-rank-or-higher (47/54, 87.0%), females (38/56, 67.9%)
- Majority self described as 'traditional students' (50/52, 96.2%)
- Few had any prior experience serving inner city underserved populations (17/54, 31.5%)
- Average student contributed 41.9 hours of service during the semester (Range 15 to 78)



Qualitative Results

- 10 categorical themes found in end of semester summary papers and online discussion forums



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>The growing crisis of uninsured Americans does impact the natural compassion of those who serve. Students believe that because this problem is often times overwhelming, the amount of natural compassion healthcare workers have for those they serve will diminish over time. It is important to always try to identify with others and approach the situation with an open-mind in order to let down stereotypes.</p>	<p>"I have become more aware of the growing health care problems and the dedication that one will need to have in order to work in this field."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>In healthcare, it is important to avoid the “drama triangle”, which often identifies the patient as the victim and the physician as the rescuer. If healthcare workers are able to approach service with an open-mind and with respect for all, it then becomes easier to avoid this “drama triangle”. When patients feel acceptance and support from their physician, they become empowered to engage in self-help.</p>	<p>“Instead of being a rescuer, a victim or a persecutor we need to think of ourselves as treating those with the respect and giving them the treatment which that is need. For which we would like to be treated as well.”</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>In order for a physician to be able to connect with and listen to their patients, it is essential for them to recognize their fears, listen to their hearts and focus 100% on the patient. Students strongly believe that it is only in this way, that a physician can best serve their patients</p>	<p>"Healing will truly begin when we encourage our patients to talk about their fears, pains, and concerns. The amazing thing, is that healing will occur and the patient's demeanor can change greatly, even in the continued presence of physical pain."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>Many students had eye-opening experiences while volunteering for this service learning course. Students strongly believe that it was extremely valuable to gain first-hand experience in underserved medicine. Not only did students gain understanding of what a career in medicine entails, they also were able to see the vast diversities inherent in medical service, for example, the problem of language barriers in underserved medicine.</p>	<p>"Actually, just the other day I had an experience that I will never forget. I was shadowing the financial advisor, Tracy, at my clinic and a woman came in who only knew Spanish. Having taken three years of Spanish in high school, I knew just enough to introduce myself and tell her I could speak it a little bit. She was very young and friendly and understanding that I didn't know Spanish very well. After about 7 minutes, Tracy still wasn't back yet and it felt extremely awkward. I felt so helpless because I wanted to talk to this woman to make her feel more comfortable, but couldn't because of the language barrier."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>From their volunteering experience, students most enjoyed observing the patient/physician interaction.</p>	<p>"By giving someone all of our attention, making eye contact, and responding appropriately to what they are saying, a better rapport is established. And as I discovered last week while shadowing a physician, you may discover that the original complaint has nothing to do with why they came in the first place.."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>Volunteering during this service learning experience has made many students appreciate how fortunate they may be and inspired many to continue their journey into medicine so they too can serve others.</p>	<p>"I can not imagine feeling like I didn't have access to healthcare because I couldn't afford it. I feel that it is our responsibility to help the less fortunate and to make sure that they have the best quality of life possible."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>Students believe that physicians have a powerful role in engaging others into social action. They believe that through their own passion and enthusiasm they are able to lead by example and spark that same interest in others.</p>	<p>"The motivation that leads us to start a movement or project of any kind no doubt comes from our passion for that cause. That in and of itself attracts the attention of others. Enthusiasm can't go unnoticed."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>This service learning course has provided many students with lifelong experience in dealing with the diverse community as well as what the reality of a career in medicine entails. This course has positively affected so many students, and most report that their interest in medicine has increase substantially.</p>	<p>"I was tremendously impacted by serving underprivileged individuals. It made me realize that everyone suffers and needs help when they are down. I can't wait to become a doctor and I will always remember this service learning class. It allowed me to look past all the technical things in the medical world and to get down to what really matters; helping people."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>There are many barriers in underserved medicine and it is often difficult to entice new medical graduates to go into underserved medicine. Through this course, students were able to experience some of the drawbacks in underserved medicine and they offered a few ideas that may help to encourage more young physicians to go into this area of medicine. For example, loan re-payment and first-hand experience in underserved medicine as a medical student were two suggestions to help alleviate this barrier.</p>	<p>"Coming from a small rural town myself, I believe that the biggest reason has to do with the lack of medical insurance that people living in those areas have. Health care occupations are just like any other in the fact that money is important, and dealing with a small community where the money is just not there makes it difficult to live. I don't think its necessarily that the health care providers are greedy, but they are just like every other person in that they deserve to be paid for what they are doing, especially if it has to do with saving people's lives."</p>



Qualitative Results

Categorical Theme Summary	Student Quotation Reflective of Theme
<p>Most all students report that this class not only helped them solidify an interest in medicine, it also increased their knowledge and interest in underserved medicine. They would recommend this class to their peers, and as a whole, had a rewarding experience.</p>	<p>"I've always contemplated the reality of going into an underserved community as healthcare provider. There are many programs that offer opportunities to serve in underserved areas. These are the roads less traveled by. I doubted whether I could hold out, whether opportunities and roads would lead me to actually serve in such setting. Now, I see that it's not mystic, no traumatic decision, no unachievable sacrifice. It's simply a decision, a consciousness, a choice."</p>



Quantitative Results

- 35% (13/37) reported interest in becoming PCP before class
- 5/13 (38.5%) reported they were no longer interested in becoming a PCP on the post class survey
- Of remaining 24 students, 54.2% (13/24) responded that they were interested in becoming PCP on post course survey
- $X^2 = 7.81$ (continuity corrected),
- $p = 0.005$

PRE	POST		
	Y	N	
PCP yes	8	5	13
PCP no	13	11	24
Grand Total	21	16	37



Quantitative Results

- 59% (22/37) responded yes on pre-course survey if interested in providing healthcare in a medically underserved area
- 2/22 (9%) reported that they were no longer interested in working in a MUA
- Remaining 15 students, 60% (9/15) responded that they were interested in practicing in medically underserved setting on post course survey, which was statistically significant
 - $X^2 = 4.26$ (continuity corrected),
 - $p = 0.039$

		POST		
		Yes	No	
PRE	Yes	20	2	22
	No	9	6	15
	Grand Total	29	8	37



Quantitative Results

- 76% (29/38) responded they viewed the course instructors as a mentor
- Of those 29, 97% reported they intend to continue to be active in community service after the completion of the course
- This was significant. ($X^2=3.33$, $p<0.10$)



Case Reports

- *" I just wanted to let you know that thanks to your help I received the IN Primary Care Scholarship. So thank you so much for helping out."*
- *" I am pleased to announce my acceptance into the MSMS program. It would not have been possible without you! Thank you so much."*
- *" I probably would have never thought of doing something like that if you hadn't suggested it."* in response to being appointed by the Mayor of Bloomington to the Board of Directors for the South Central Community Action Program.



Case Reports

- 3 of 16 School of Science Students named to IUPUI's Top 100 students
- Student started Relay For Life and raised more than \$25,000



Limitations

- Semester of quantitative data was lost
- Formal post-course follow up is done only upon completion of semester
- Informal post-course follow up is not systematic
- Only student intentions, not longterm outcomes, are assessed
- Student recruitment is not systematized



Conclusions

- We created a course that allows students to
 - Develop a mentorship relationships with primary care role models
 - Increase understanding of medically underserved populations
 - Reinforce passion for community service
 - Witness emotional aspects of caring for people of greatest need



Conclusions

Our data support our hypothesis that such an experience results in short term increases in interest in careers as primary care physicians and in healthcare careers serving medically underserved populations.

We have demonstrate that providing a service learning opportunity in medically underserved CHCs to undergraduate students can positively impact the pipeline of healthcare professionals.



Future Plans

- Continue to grow local participation in course
- Continue to expand state-wide offerings of course
- Continue to seek external funding for expansion and evaluation of course
- Continue to build partnerships with community infrastructure and organizations