An Examination of Interdisciplinary Student Experiences: Impact on Student Attitudes

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Study Background
The National Health Service Corps (NHSC), housed within the Health Resources and Services Administration, developed programs to provide opportunities for health profession students/residents to experience health care teams in underserved communities throughout the country. The program was designed to:

• establish and strengthen links between community-based sites and academic institutions.

These interdisciplinary training programs began in North Dakota in 1994 and ended in 2012 spanning 18 years (no federal funding in 2009) and included:

• 400 students from medicine (ME), nurse practitioner (NP) studies, physician assistant (PA) studies, psychology (Psych), counseling psychology, social work (SW), and dentistry (DSB)

• 3 in-state universities (357 students)

• participants from 16 other states, the District of Columbia and Hungary (43 students)

An important component of this program was forming partnerships with health care facilities and educational institutions. Figure 1 shows the types and numbers of health care facilities utilized in the program.

Research Study
Exploratory research was conducted on study years 2005-2008 to examine:

• Students’ intent to practice in rural or urban communities.

• Students’ confidence in participating as a member of an interdisciplinary health care team.

• Students’ intent to practice in rural or urban areas.

Two sets of questions were analyzed that addressed the students’ confidence in interdisciplinary learning skills and attitudes about their own profession.

Methods

Students were asked about their intent to practice in rural or urban communities. While there was a slight decrease in intent to practice in 2005, no difference was found in 2006 and 2008 with a positive change noted in 2007 which indicated that the program did not lessen their intent to practice in rural areas following the rotation as shown in Figure 2.

Research was conducted on students participating in the SEARCH program from 2005-2008 to analyze the factors that affected the changes in students’ confidence levels and attitudes related to their own professions. Many of the results were not significant due to a small sample size and the Bonferroni adjustment. Preliminary results shown in Tables 2 and 3 indicate that students greatly improved their level of confidence in assisting patients’ access to resources in a rural area.

Students gained a greater understanding and appreciation for rural practice. Results show that the program did achieve cultural competence which is one of the primary goals of the SEARCH program. Future research is planned to investigate relationships between students’ high school location (rural/urban) and eventual practice location.

Results

Key
• NHSC (National Health Service Corps)
• Dental sites
• RHC (Rural Health Clinics)
• IHS (Indian Health Service)
• FQHC (Federally Qualified Health Centers)

Table 1: Student Participation

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>30</td>
</tr>
<tr>
<td>2006</td>
<td>30</td>
</tr>
<tr>
<td>2007</td>
<td>30</td>
</tr>
<tr>
<td>2008</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 2: Students’ degree of confidence in participating as a member of an interdisciplinary health care team and assisting patients in rural and urban areas.

<table>
<thead>
<tr>
<th>Question</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to resources</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Cultural competence</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Confidence</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Table 3: Changes in students’ attitudes related to their own profession.

<table>
<thead>
<tr>
<th>Question</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist a patient in obtaining health care in a rural community</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Contribute knowledge of your specific discipline for the purpose of affecting patient outcomes</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Acknowledgement

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• Faculty committee members: Medicine - Dr. Roger Schauer; Nurse Practitioner Program - Dr. Stacy Plenning, Dr. Jackie Roberts, Dr. Dean Gross; Social Work - Professor Bruce Reeves; Psychology-Dr. Alan King; Counseling-Dr. Cindy Jernimen

• Partnering educational institutions/departments include University of Mary Nurse Practitioner Program – North Dakota State University Nurse Practitioner Program – University of North Dakota’s Nurse Practitioner Program, Medical School, Psychology Department, Counseling Psychology Department, Department of Social Work, Physician Assistant Program – University of Minnesota School of Dentistry.

• Data were analyzed using IBM SPSS v20.

• A Bonferroni adjustment was made based on the number of comparisons in each category. The effect size index (g) and Cohen’s guidelines was used to interpret the results in Tables 2 and 3.