Clinical education and cultural diversity in physical therapy: Clinical performance of minority student physical therapists and the expectations of clinical instructors

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Clinical education is an integral part of preparation for the profession of physical therapy and the role of the clinical instructor is critical. The purpose of this study was to investigate clinical instructors' expectations of student physical therapists with different ethnic backgrounds and the clinical performance of the students as assessed using a modification of the Generic Abilities Assessment. For this study, individuals with a Caucasian ethnic background who were raised in the United States were considered as the majority. The remaining individuals (minority) were subdivided into five groups: African American, Hispanic, Asian/Pacific Islander, Caucasian from outside the United States, and Other. Clinical instructors reported their experiences with students from different ethnic backgrounds, their expectation of students' performance, and recollections of specific weaknesses in performance. From the 216 surveys distributed, 192 clinical instructors responded. Fifty-seven percent had supervised a minority student, with a mean of three students each. While 4% reported that they expected a higher standard from majority students, 17% noted a difference in performance between majority and minority students. Results from this study suggest that minority students would benefit from further preparation in communication and interpersonal skills but they are stronger than majority students in stress management and the effective use of time and resources.

Introduction

The United States is in the midst of demographic, social, and cultural change. At the beginning of this century, 69.4% of the total population was identified as White (non-Hispanic) but this group is projected to decrease to 50.1% by 2050. The present majority population of

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non-Hispanic White will eventually become the biggest minority. The Black population is projected to increase from 12.7% to 14.6%, the Hispanic (of any race) population from 12.6% to 24.4% and the Asian population from 3.8% to 8% (U.S. Census Bureau, 2004). These changes have implications for many professions. Healthcare practitioners are recognizing that they live in a culturally diverse society and must accommodate the needs of a diverse population, but few rehabilitation professionals are prepared to meet these needs (Bender, 2002; Black and Purnell, 2002; Coyne, 2001; Edwards, 2003; Leavitt, 1999; Spector, 2004). Culturally competent practitioners acknowledge the influence of culture, are vigilant concerning the dynamics that result from cultural differences, incorporate cultural knowledge into their practice, and adapt to diversity (Leavitt, 2002, 2003).

Bender (2002) considered the changing demographics of the typical patient and explored the impact on physical therapy care and physical therapy education. She proposed major changes in the way physical therapists interact with patients in order to provide “a more expansive, humanistic approach that recognizes the innate worth of every person” (p. 12). Practitioners with the same cultural background as their clients may provide the most appropriate healthcare (Cooper-Patrick et al, 1999; Splenser, Canlas, Sanders, and Melzer, 2003), however, practicing physical therapists do not reflect the ethnic diversity of the United States population (Brissette, 2004; Kachingwe, 2003). The American Physical Therapy Association (APTA) and physical therapy programs across the nation are seeking culturally diverse student bodies by actively encouraging and recruiting minority students. The success of these efforts is demonstrated by the increase in minorities among student physical therapists. The APTA membership statistics (APTA, 2005c) show that 10.9% of physical therapists and 18.5% of student physical therapists are of minority race/ethnicity. An increase in the number of minority students admitted into physical therapy programs does not automatically increase the number of minority students who graduate and become practicing clinicians. There is a high rate of attrition of non-majority students in physical therapy education, which makes retention more important than recruit-
the original publication in 1995, the Delphi technique was repeated with a larger number of clinicians (May, Straker, and Foord-May, 2002). In order to test the construct validity of the model, Jette and Portney (2003) asked physical therapy students to assess how frequently they performed 152 behaviors. Seven generic abilities that corresponded with the original ten were identified.

Few authors have examined the issues associated with cultural diversity in physical therapy. Haskins, Rose-St. Prix, and Elbaum (1997) sought to determine whether covert bias was present in the evaluation of physical therapist students’ clinical performance. Four physical therapist students from different ethnic and racial backgrounds (1 Black, 1 Hispanic, 1 White, and 1 Asian) were videotaped reciting identical scripts on a patient’s status. Eighty-three physical therapists (3 Black, 7 Hispanic, and 73 White) were randomly assigned to view one of the four students’ videotapes. After reading a case study about the patient, the physical therapists rated the student’s presentation. Half of all the positive comments offered were directed at the White student and there were few positive comments for the Hispanic, Asian or Black students. The Black student consistently received a lower score than the others despite reciting the identical script—suggesting that the Black student may have been treated differently based on her race, ethnicity or accent. The

Table 1. Generic abilities.

<table>
<thead>
<tr>
<th>Generic ability</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commitment to learning</td>
<td>The ability to self-assess, self-correct, and self-direct; to identify needs and sources of learning; and to continually seek new knowledge and understanding.</td>
</tr>
<tr>
<td>2. Interpersonal skills</td>
<td>The ability to interact effectively with patients, families, colleagues, other health care professionals, and the community and to deal effectively with cultural and ethnic diversity issues.</td>
</tr>
<tr>
<td>3. Communication skills</td>
<td>The ability to communicate effectively (i.e., speaking, body language, reading, writing, listening) for varied audiences and purposes.</td>
</tr>
<tr>
<td>4. Effective use of time and resources</td>
<td>The ability to obtain the maximum benefit from a minimum investment of time and resources.</td>
</tr>
<tr>
<td>5. Use of constructive feedback</td>
<td>The ability to identify sources of and seek out feedback and to effectively use and provide feedback for improving personal interaction.</td>
</tr>
<tr>
<td>6. Problem-solving</td>
<td>The ability to recognize and define problems, analyze data, develop and implement solutions, and evaluate outcomes.</td>
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<tr>
<td>7. Professionalism</td>
<td>The ability to exhibit appropriate professional conduct and to represent the profession effectively.</td>
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<tr>
<td>8. Responsibility</td>
<td>The ability to fulfill commitments and to be accountable for actions and outcomes.</td>
</tr>
<tr>
<td>9. Critical thinking</td>
<td>The ability to question logically; to identify, generate, and evaluate elements of logical argument; to recognize and differentiate facts, illusions, assumptions, and hidden assumptions; and to distinguish the relevant from the irrelevant.</td>
</tr>
<tr>
<td>10. Stress management</td>
<td>The ability to identify sources of stress and to develop effective coping behaviors.</td>
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</tbody>
</table>

Note. Generic abilities are attributes, characteristics, or behaviors that are not explicitly part of the profession’s core of knowledge and technical skills but are nevertheless required for success in the profession. From May et al. (1995) Journal of Physical Therapy Education 9(1): p. 4.
researchers concluded that physical therapists in the United States may not be prepared to work with students of different racial or ethnic backgrounds.

Ladyshewsky (1996) investigated the influence of language and culture on clinical education practices. He noticed that South East Asian students in Australia may achieve a sound academic performance yet experience difficulty during their clinical experiences. The project involved nine South East Asian undergraduate physiotherapy students and eleven clinical instructors. Information was collected from focus group sessions and student journals and by direct observation of students and clinical instructors in the clinic. The focus group sessions explored issues of student performance and cross cultural supervision. The findings of the study supported the importance of cultural awareness and conversational language skills for successful clinical experiences. Delays in conversation can be interpreted as a lack of interest or a lack of knowledge when they are the result of time taken to process the information, translate, and prepare a response. Students may also experience difficulty with sentence construction and word selection, resulting in overuse of some words and simple but abrupt sentences. Both clinical instructors and academic programs need to develop greater cultural sensitivity to make the learning experience more productive.

Merrill (1998) studied barriers influencing the success of nursing students and determined that colleges and faculty must have a better awareness of the needs of culturally diverse students and provide the support systems necessary for success. She acknowledged that students who did not finish a program “are as much a reflection of institutional commitment as they are a reflection of a student’s personal life” (p. 62).

Babyar et al (1996) surveyed the inclusion of cultural and gender issues in nine entry-level physical therapy programs in New York State. Although they found that culture and gender diversity issues were being discussed in several courses, the programs did not include special units or a programmatic plan to integrate the material into the physical therapy curricula. The investigators concluded that faculty members and students need to increase their cultural awareness to prepare for working in the multicultural community. Kraemer (2001) conducted a qualitative case study to gather the perceptions of 12 physical therapist students regarding their preparation for providing culturally appropriate care in the clinical setting. Three main themes emerged: 1) lack of clinical preparation, 2) lack of awareness of barriers and clinical cultural clashes, and 3) lack of available resources.

Black (2001) compared the multicultural literature in physical therapy, nursing and social work. She noted that the education programs of all the health professions are mandated by their accrediting agencies to include diversity and multicultural content within the curricula but this inclusion is moving at a slow pace. Kachingwe (2003) studied the importance of diversity and multiculturalism in physical therapy and sought knowledge that could be used by physical therapy educators to more effectively address diversity and multiculturalism. It was shown that when the faculty has a strong conviction in the importance of diversity, they will create a welcoming, inclusive environment and there will be more effective interaction with students from all backgrounds.

The purpose of this research was to investigate clinical instructors’ expectations of physical therapist students with different ethnic backgrounds, and the students’ clinical performance as assessed by the Generic Abilities Assessment. The investigators hypothesized that there is no difference in clinical instructors’ expectations of the clinical performance of students with different ethnic backgrounds, and furthermore, that there is no difference noted by clinical instructors in the performance of students of various ethnic backgrounds. For this study individuals with a Caucasian ethnic background who were raised in the United States were considered as the majority. The remaining individuals (minority) were subdivided into five groups: African American, Hispanic, Asian/Pacific Islander, Caucasian from outside the United States, and Other.

Methods

Subjects and survey distribution

A survey was distributed to 216 clinical instructors who were affiliated with a physical therapy program in a Midwestern university. The clinical instructors represented facilities
across the United States. The packet mailed to each clinical site included a cover letter, the survey, a reference copy of the ten generic abilities and a self-addressed stamped envelope. The letter explained the purpose of the study and offered directions for completion and return of the survey. It also contained a statement of anonymity and confidentiality, including that return of the survey implied informed consent to participate in the study. Participation was voluntary and all responses were anonymous. The study was approved by the Institutional Review Board of Andrews University.

Survey

The survey instrument was developed for this study. Prior to data collection the instrument was pilot tested, by faculty from the communication and physical therapy departments and an external expert, for content validity and ease of completion. The survey was then modified to reflect the feedback received. The revised survey consisted of three sections plus an opportunity for comments (see Appendix). The first section covered demographic information; the second dealt with the clinical instructors’ experience with students; and the third section, limited to those who had supervised minority students, was concerned with the clinical instructors’ experience with students of different ethnic backgrounds. The survey included a statement defining the term minority for the study. The minority was subdivided into five groups: 1) African American, 2) Hispanic, 3) Asian/Pacific Islander, 4) Caucasian from outside the United States, and 5) Other. Directions given for completing the survey were to check all that apply or fill in the blanks.

Demographic information included gender, age, ethnic background, educational background, and years of experience as a clinical instructor. Check boxes were supplied for answers to questions targeting the clinical instructor’s experience with majority and minority students. Questions included the number of minority students supervised, whether there was a difference in performance of majority and minority students, the ethnic background of the students, and whether there was an expectation for majority students to perform better than the minority students. The clinical instructors were asked to refer to the Generic Abilities document (Table 1) accompanying the survey, and to indicate the areas of weaknesses of majority and of minority students by checking the corresponding abilities on the list provided on the survey. If they had not supervised a minority student, the response was to be based on their expectation. Only clinical instructors who had supervised minority student(s) were requested to complete the third section of the survey to indicate the weaknesses of students of different ethnic backgrounds. Where weaknesses were identified, clinical instructors were invited to offer suggestions for improvement of those weaknesses.

The Generic Abilities Assessment developed by May et al. (1995) was chosen as the basis for the survey to determine clinical performance. Many physical therapist education programs have adopted or modified the generic abilities for a wide range of activities. These include advising students, portfolio development, evaluating student behavior, and developing course objectives. The Generic Abilities Assessment has been in use by this academic program since 1997 and it was expected that clinical instructors associated with the program were familiar with the tool.

For this study, one of the ten categories of the original Abilities Assessment was modified by the inclusion of three sub-categories in the area of communication: basic English skills, accent, and other. An eleventh category labeled ‘Other’ was added to include any concerns that did not fit neatly into the ten original categories.

Data analysis

The number of years of experience as a clinical instructor and number of minority students supervised were reported as a mean ± standard deviation. All other data were reported as frequencies and percentages. A nonparametric binominal test was used to analyze the difference between the hypothesized and reported expectations of minority students’ performance, and the difference in performance between majority and minority students. The hypothesized proportion (representing no difference between the groups) was set at 0.99 for each test. The association
between expectation and performance and between performance and ethnicity were tested with chi-square. Significance was set at \( p \leq 0.05 \). Data were analyzed using the Statistical Package for Social Sciences (SPSS version 10.1).

Results

A total of 216 surveys were distributed and 192 surveys (88.9\% response) were returned. However, since not all surveys were complete, the number of responses for some questions was less than the total sample.

Demographics of clinical instructors

The distribution of gender of clinical instructors who responded was 72.9\% \((n = 140)\) female and 26.6\% \((n = 51)\) male. While the majority of clinical instructors were aged from 20 to 39 (71.3\%, \(n = 137\)), there was a representation of ages, with 1.6\% reporting they were over 60 years of age. One hundred and sixty-four clinical instructors (85.4\%) classified themselves as Caucasian American, 12 (6.3\%) as Caucasian from outside of the United States, 3 (1.6\%) as African American, 1 (0.5\%) as Hispanic, 10 (5.2\%) as Asian/Pacific Islander, and 2 (1.0\%) as Other. The ethnic backgrounds of clinical instructors are shown in Figure 1. The mean of the respondents’ years of experience as a clinical instructor was 8.15 ± 5 years. Educational background was varied; most held either a bachelor’s degree (45.3\%, \(n = 87\)) or an entry level masters degree (36.5\%, \(n = 70\)).

Performance of student physical therapists

Of the 192 clinical instructors who returned the survey, 110 (57.3\%) reported supervising minority students, with a mean of 3.1 ± 1 minority students each. All but one of these clinical instructors responded to the question which asked if they noted a difference in the performance of majority and minority students. Of the 109 clinical instructors, 91 (83.5\%) noted no difference while the remaining 18 (16.5\%) clinical instructors reported a difference in performance between majority and minority students. When asked whether they expected the majority students to perform better than the minority students, seven (3.8\%) of the 182
clinical instructors who answered this question responded in the affirmative.

A nonparametric binomial test examining the disparity in performance of majority and minority students showed a statistically significant difference \((p = .0001)\) between the hypothesized proportion (.99) and the observed proportion (.84). A nonparametric binominal test examining the expectation of clinical instructors toward majority and minority students also noted a significant difference \((p = .0001)\) between the hypothesized and observed proportions (.99 vs. .96). Figure 2 illustrates the expectations of clinical instructors toward the majority and the minority students and the reported difference in performance of those two groups. A chi-square testing the agreement in response to these questions showed significant disagreement with \(p = .0001\).

**Performance of majority students in general on generic abilities**

Of the 192 respondents, 166 (86.5\%) clinical instructors indicated weaknesses of the majority students in general based on the modified generic abilities. These weaknesses included effective use of time and resources (51.2\%, \(n = 86\)), critical thinking (39.2\%, \(n = 65\)), and problem solving (38\%, \(n = 63\)). Table 2 reports the percentage of clinical instructors who indicated weaknesses in the performance of students. Majority student performance is also shown in Figure 3, which illustrates the percentage of clinical instructors who noted a weakness in

![Figure 2](image.png)

**Figure 2.** Responses of clinical instructors (CIs) to the survey questions 1) Do you expect that the majority students perform better than the minority students? and 2) Did you note a difference in performance between majority and minority students?
the performance of majority and minority students on the basis of modified generic abilities.

Performance of minority students in general on generic abilities

Weaknesses in the observed or expected performance of minority students in general were itemized by 131 respondents. Communication skills were reported as an area of weakness by 53.4% \((n = 70)\) of these clinical instructors. In further describing communication skills, 32.1% \((n = 42)\) specified accent, 22.1% \((n = 29)\) basic English skills, and 6.9% \((n = 9)\) listed other communication skills such as understanding directions, body language, writing skill, documentation, expressiveness, and professional use of language.

The other generic abilities that clinical instructors most often identified as observed or expected weaknesses of minority students in general included effective use of time and resources \((40.5%, n = 53)\), critical thinking \((37.4%, n = 49)\), and problem solving \((35.9%, n = 47)\). Comments in the ‘other’ section included understanding of personal space, eye contact, and assertiveness.

Table 2 reports the percentage of clinical instructors who indicated weaknesses in the performance of students. Minority student performance is also shown in Figure 3, which illustrates the percentage of clinical instructors who noted a weakness in the performance of majority and minority students on the basis of modified generic abilities.

Comparing the performance of majority and minority students

The chi-square test was used to compare the frequency of reporting weaknesses with generic abilities performance of the majority and minority students in general. Figure 3 shows a comparison of the weaknesses of majority and minority students. When majority and minority students were compared, significantly more clinical instructors reported weaknesses in the communication skills \((p = .0001)\) and interpersonal skills \((p = .001)\) of minority students. This difference was also evident in the communication sub-categories of basic English skills \((p = .001)\), accent \((p = .001)\), and other \((p = .016)\). Significantly more clinical instructors reported that the majority students showed difficulty in the effective use of time and resources \((p = .0001)\) and stress management \((p = .021)\) versus the minority students. There was no significant between group difference in

<table>
<thead>
<tr>
<th>Generic ability</th>
<th>Majority student PT</th>
<th>Minority student PT</th>
<th>Non-US Caucasian PT</th>
<th>African American PT</th>
<th>Hispanic PT</th>
<th>Asian/Pacific Is. PT</th>
<th>Other PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment to learning</td>
<td>7.2</td>
<td>3.8</td>
<td>0</td>
<td>8.7</td>
<td>9.1</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>6.6</td>
<td>14.5</td>
<td>18.5</td>
<td>8.7</td>
<td>9.1</td>
<td>9.8</td>
<td>23.1</td>
</tr>
<tr>
<td>Communication skills</td>
<td>7.8</td>
<td>53.4</td>
<td>40.7</td>
<td>19.6</td>
<td>27.3</td>
<td>36.0</td>
<td>69.2</td>
</tr>
<tr>
<td>Basic English</td>
<td>3.6</td>
<td>22.1</td>
<td>26.9</td>
<td>15.2</td>
<td>18.2</td>
<td>19.6</td>
<td>38.5</td>
</tr>
<tr>
<td>Accent</td>
<td>0.6</td>
<td>32.1</td>
<td>37.0</td>
<td>8.7</td>
<td>22.7</td>
<td>25.5</td>
<td>53.8</td>
</tr>
<tr>
<td>Other communication</td>
<td>1.2</td>
<td>6.9</td>
<td>3.7</td>
<td>2.2</td>
<td>0</td>
<td>9.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Effective use of time and resources</td>
<td>51.2</td>
<td>40.5</td>
<td>22.2</td>
<td>26.1</td>
<td>27.3</td>
<td>27.7</td>
<td>23.1</td>
</tr>
<tr>
<td>Use of constructive feedback</td>
<td>16.3</td>
<td>9.9</td>
<td>0</td>
<td>4.3</td>
<td>4.5</td>
<td>9.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Problem solving</td>
<td>38.0</td>
<td>35.9</td>
<td>33.3</td>
<td>34.8</td>
<td>31.8</td>
<td>27.5</td>
<td>30.8</td>
</tr>
<tr>
<td>Professionalism</td>
<td>7.2</td>
<td>3.8</td>
<td>7.4</td>
<td>13.0</td>
<td>9.1</td>
<td>3.9</td>
<td>15.4</td>
</tr>
<tr>
<td>Responsibility</td>
<td>7.2</td>
<td>3.8</td>
<td>3.7</td>
<td>13.0</td>
<td>4.5</td>
<td>7.8</td>
<td>15.4</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>39.2</td>
<td>37.4</td>
<td>33.3</td>
<td>32.6</td>
<td>31.8</td>
<td>27.5</td>
<td>7.7</td>
</tr>
<tr>
<td>Stress management</td>
<td>18.7</td>
<td>11.5</td>
<td>11.1</td>
<td>15.2</td>
<td>13.6</td>
<td>31.4</td>
<td>7.7</td>
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<tr>
<td>Others</td>
<td>5.4</td>
<td>8.4</td>
<td>7.4</td>
<td>6.5</td>
<td>13.6</td>
<td>11.8</td>
<td>15.4</td>
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reported weaknesses in use of constructive feedback \((p = .344)\), responsibility \((p = .344)\), professionalism \((p = .508)\), critical thinking \((p = .508)\), commitment to learning \((p = .688)\) and problem-solving \((p = .727)\), as these attributes were reported with similar frequency for both groups.

**Performance of minority students identified by ethnic group**

A total of 110 clinical instructors reported supervision experience with minority students. Fifty-one clinical instructors had supervised Asian/Pacific Island students, 46 had supervised African-American students, 27 had supervised Caucasian students from outside of the United States, and 22 had supervised Hispanic students. The third section of the survey provided opportunity for those clinical instructors who had supervised minority students to record the areas of weakness in the performance of minority students identified by ethnic group. The performance of specific minority groups is shown in Table 2.

Of the 192 respondents, 68 (35%) used the space provided for comments and suggestions...
on how to improve the weaknesses of the minority students. Thirty-five (51%) of these pointed out that weaknesses were based on personality or the educational experience received rather than ethnic backgrounds, 30 (44%) suggested improvement in English skills for minority students, 4 (6%) suggested changes in the academic curriculum, 5 (8%) commented on the survey itself.

Discussion

The investigators hypothesized that there is no difference in the expectations of clinical instructors for the clinical performance of students with different ethnic backgrounds. However the hypothesis was rejected when a small but significant four percent of clinical instructors indicated that they expected that the majority students would perform better than the minority. Higher expectations of students can lead to stronger performance since student performance can be affected by instructor expectations (Black, 2001; Brown, 2001). The fact that there was a small but significant difference in clinical instructors’ expectations of performance between minority and majority students suggests limited overt racial bias. However, it cannot be determined from this study if this truly reflects a lack of bias or if the clinical instructors did not acknowledge their bias. Haskins, Rose-St. Prix, and Elbaum (1997) found indications of covert bias in evaluation of physical therapist students’ clinical performance.

Of 109 respondents, 16.5% of clinical instructors reported that they noted a difference in performance between majority and minority students. Identifying differences in student performance was based on each clinical instructor’s recollection of their experiences with students. The hypothesis that there is no difference noted by clinical instructors in performance of students of various ethnic backgrounds was rejected based on the results of this study. While minority students were not reported to have more weaknesses than their majority counterparts, they did have a different profile of weaknesses.

The primary weakness of minority students was identified as communication skills. This finding is in agreement with previous studies by Haskins, Rose-St. Prix, and Elbaum (1997) and by Ladyshewsky (1996) that minority students received lower scores on communication skills, and that language proficiency has a direct influence on clinical education.

Communication is a crucial component of successful outcomes in physical therapy where patient compliance and cooperation are essential. Minority students may achieve improved outcomes with clients of their own ethnic group (Cooper-Patrick, 1999), but without improved communication skills there is potential for poor outcomes with clients of other ethnic groups. In addition, communication difficulties affect confidence which adds a further barrier to performance. This is most noticeable in students whose communication problems are a result of using English as a second language (ESL). Guhde (2003) investigated strategies for helping ESL nursing students build verbal and written language skills. Tutors assisted the students one-on-one or in small study groups to practice reading, listening, speaking and writing. Classroom and clinical instructors need to be sensitive to cultural differences in students to help students improve their communication skills.

In comparison with minority students, the majority students were more likely to demonstrate weaknesses with the effective use of time and resources and with stress management. Other areas of the generic abilities were similar for both groups of students. As shown in Figure 3, the clinical instructors rated the effective use of time and resources, problem solving and critical thinking to be challenging for both majority and minority students. Students may need time in the clinic working with real patients to develop these skills.

Accrediting agencies, professional associations and universities encourage cultural diversity through recruitment and retention of minorities. This is increasingly important in health professions where the goal is not simply to reflect the demographics of the general population, but rather to impact the outcomes of intervention (Cooper-Patrick, 1999). The American Physical Therapy Association has an established Department of Minority Affairs with the primary responsibility of “providing resources which will assist APTA members become culturally competent practitioners and educating APTA membership and the general public about the importance of valuing cultural diversity in
the profession of physical therapy and the Association” (APTA Minority Affairs, 2004). The APTA’s Cultural Competence Strategic Plan (APTA, 2004b) includes a major goal “that the physical therapy profession reflect the demographics of society”.

Limitations common to survey research influence the results of this study. There was no suggestion that clinical instructors review records in order to respond to the survey, the instructions were to “check all that apply and fill in the blanks.” Clinical instructors completed the survey based on their perceptions and memory of student performance and it cannot be known how their recollection of performance compared with the actual behavior. Some surveys were returned incomplete. It is understood that the use of the term minority may have influenced some responses and that questions may have been considered sensitive in nature.

The term minority was used in this survey. It is recognized that cultural stereotyping is often alienating, misleading and problematic. An Asian, as a third generation Japanese student is very different than a newly arrived refugee from Vietnam. The term Asian/Pacific Islander includes more than ten distinct ethnic groups and represents the fastest growing minority in the United States (U.S. Census Bureau, 2001). Among physical therapist members of the APTA the Asian/Pacific Islander members form the largest minority group with 5.1% of the total membership (APTA, 2005c).

The 192 surveys returned from clinical sites across the United States indicated an overwhelming majority of Caucasian clinical instructors (85.4%), and a small number of respondents in some of the ethnic subgroups. However, the race/ethnic mix of the respondents parallels that of the physical therapist population. Similarly, there were a limited number of students supervised in some of the subgroups. Thus the bulk of the data represent Caucasian clinical instructors’ perceptions of the behavior of the students they supervised with many of the perceptions based on interactions with few minority students.

Clinical instructors noted a difference in performance between majority and minority students. Results suggest that minority students in general would benefit from further preparation in communication and interpersonal skills and that they are stronger than majority students in stress management and the effective use of time and resources. Cultural diversity is an issue that has caught the attention of many health care professionals and the enrollment of an ethnically diverse group of students has brought new challenges. Although this study was concerned with the clinical education component of the curriculum the results demonstrate the need for both academic and clinical faculty to increase their awareness of the challenges that face students from various ethnic backgrounds. The education of physical therapists can no longer address the needs of majority students alone; it must also appropriately attend to the needs of all ethnic groups. Based on our results, minority students would benefit from an emphasis on communication skills and interpersonal relations prior to the clinical component of their education.

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Appendix 1

Survey of Expectation of Clinical Instructors & Performance of Minority Students

In this survey, minority student refers to those who have cultural background from other than the United States and the rest is considered as majority (Caucasian). The ethnic background for the minority is divided into five groups: 1) Caucasian from outside the United States, 2) African-American, 3) Hispanic, 4) Asian/Pacific Islander and 5) others.

Please check all that apply or fill in the blank.

Gender:  
[ ] Female  [ ] Male

Age:  
[ ] 20—29  [ ] 30—39  [ ] 40—49  [ ] 50—59  [ ] >60

Ethnic Background:  
[ ] Caucasian  [ ] Caucasian from outside of the U.S.  [ ] African-American  [ ] Hispanic  [ ] Asian/Pacific Islander  [ ] Other ________

Years of Experience as Clinical Instructors: _____ years

Highest Degree Earned:  
[ ] DPT  [ ] Post-professional Degree  [ ] Entry-level Master’s  [ ] Baccalaureate  [ ] Associate  [ ] Other ________

Q1. Have you experienced being a clinical instructor for minority student(s)?  
[ ] Yes  How many? ________(omit Q. 6)  [ ] No (Omit Q. 2,3, and 7)

Q2. Did you note a difference in performance of “majority” vs. “minority” students?  
[ ] Yes  [ ] No

Q3. Ethnic background of the minority students: (Please check all that apply.)  
[ ] Caucasian from outside of the U.S.  [ ] African-American  [ ] Hispanic  [ ] Asian/Pacific Islander  [ ] Other ________

Q4. Do you expect that the majority of students perform better than the minority students?  
[ ] Yes  [ ] No

For Q.5,6, & 7, refer to the attached generic ability form.

Q5. Weaknesses of the majority of students in general:  
[ ] Commitment to Learning  [ ] Interpersonal Skill  
[ ] Communication Skills  [ ] Effective Use of Time and Resources  
( ) a. Basic English skills  [ ] Use of Constructive Feedback  
( ) b. Accent ________  [ ] Problem-Solving  
( ) c. Others ________  [ ] Professionalism
Q6. Weaknesses of the minority students in general: (if you answered ‘No’ to Q1, please check item(s) based on your expectation.)

[ ] Commitment to Learning  [ ] Interpersonal Skill
[ ] Communication Skills  [ ] Effective Use of Time and Resources
  ( ) a. Basic English skills  [ ] Use of Constructive Feedback
  ( ) b. Accent
  ( ) c. Others __________
[ ] Responsibility  [ ] Critical Thinking
[ ] Stress Management  [ ] Others

Q7. Weaknesses of the minority students: (Please check all that apply.)

- Caucasian from outside of the U.S.
  [ ] Commitment to Learning  [ ] Interpersonal Skill
  [ ] Communication Skills  [ ] Effective Use of Time and Resources
    ( ) a. Basic English skills  [ ] Use of Constructive Feedback
    ( ) b. Accent
    ( ) c. Others __________
  [ ] Responsibility  [ ] Critical Thinking
  [ ] Stress Management  [ ] Others

- African-American
  [ ] Commitment to Learning  [ ] Interpersonal Skill
  [ ] Communication Skills  [ ] Effective Use of Time and Resources
    ( ) a. Basic English skills  [ ] Use of Constructive Feedback
    ( ) b. Accent
    ( ) c. Others __________
  [ ] Responsibility  [ ] Critical Thinking
  [ ] Stress Management  [ ] Others

- Hispanic
  [ ] Commitment to Learning  [ ] Interpersonal Skill
  [ ] Communication Skills  [ ] Effective Use of Time and Resources
    ( ) a. Basic English skills  [ ] Use of Constructive Feedback
    ( ) b. Accent
    ( ) c. Others __________
  [ ] Responsibility  [ ] Critical Thinking
  [ ] Stress Management  [ ] Others

- Asian/Pacific Islander
  [ ] Commitment to Learning  [ ] Interpersonal Skill
  [ ] Communication Skills  [ ] Effective Use of Time and Resources
    ( ) a. Basic English skills  [ ] Use of Constructive Feedback
    ( ) b. Accent
    ( ) c. Others __________
  [ ] Responsibility  [ ] Critical Thinking
  [ ] Stress Management  [ ] Others
Other:__________
[ ] Commitment to Learning [ ] Interpersonal Skill
[ ] Communication Skills [ ] Effective Use of Time and Resources
  ( ) a. Basic English skills [ ] Use of Constructive Feedback
  ( ) b. Accent [ ] Problem-Solving
  ( ) c. Others _________ [ ] Professionalism
[ ] Responsibility [ ] Critical Thinking
[ ] Stress Management [ ] Others _________

Please suggest how the minority students could improve their weaknesses if any.

_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

Thank you for taking the time to complete this survey.