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# Partnership Perspectives: Changing the Image of Physical Therapy in Urban Neighborhoods Through Community Service Learning

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**Background and Purpose.** Anecdotally, residents of a local inner-city neighborhood have limited perception and understanding of the physical therapy profession. The purpose of this paper is to present the results of a mixed design pilot study intended to investigate this community's perception of physical therapy and Lower Roxbury community members' assessment of Northeastern University's Department of Physical Therapy community service-learning (CSL) program. Community residents who have been exposed to physical therapy through CSL may have a better understanding and perception of the profession than residents who have not participated.

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*This study was approved by Northeastern University's Division of Research Integrity (IRB #06-01-11).*

*Diane Fitzpatrick, Ann Golub-Victor, and Susan Lowe completed this project as co-primary investigators in partial fulfillment of graduation requirements for the Doctor of Physical Therapy degree.*

**Subjects.** Subjects of the study included 53 community residents and 8 community agency outreach workers and program directors that were CSL partners.

**Methods.** This mixed-design study featured data triangulation, including a review of the literature regarding community perception of physical therapy; a community resident survey; and community partner focus groups and interviews. Community residents were queried about their understanding of physical therapy (eg, education required, exposure to, problems treated by). Community partners were asked 3 open-ended questions in focus groups or interviews.

**Results.** Sixty-four percent of community residents reported they had seen a physical therapist, 36% participated in weekly CSL physical activity programs, and 89% knew that physical therapists needed to be licensed in order to practice. Only 45% of the community residents knew that physical therapists need a college education. Community partners reported an improved understanding and positive perception of the physical therapy profession through CSL. A review of the literature revealed that the impact of service learning on community perceptions of physical therapy as a profession has not been studied in much detail.

**Discussion and Conclusion.** This pilot study may be one of the first to investigate public perceptions of physical therapy in the United States. Community service learning appears to be a tool to help the physical therapy profession move closer to achieving Vision 2020, as it may increase consumer awareness of physical therapy services.

**Key Words:** Assessment of community service learning, Community perceptions, Patients, Attitudes, Physical therapy.

## INTRODUCTION

Multiple factors influence an individual's access to health care, including socioeconomic status, literacy, transportation, and knowledge of resources.<sup>1</sup> Residents of the Lower Roxbury neighborhood of Boston, Massachusetts also may be limited by their own percep-

tions of physical therapists. Namely, they do not have a good understanding of what physical therapy can offer and hold negative perceptions related to automobile accident and worker's compensation insurance claims. This apparent lack of understanding of physical therapy exists despite the fact that residents of Lower Roxbury live in a community that is surrounded by world-renowned teaching hospitals and universities. The purpose of this paper is to present the results of a pilot study designed to investigate the community's perception of physical therapy, as well as its assessment of Northeastern University's Department of Physical Therapy (NUP1) community service-learning program. Two primary research questions guided this work:

1. Do residents who have been exposed to physical therapy through Northeastern University's community service-learning (CSL) programs have a better understanding of the physical therapy profession than residents who have not participated in this program?
2. Does CSL positively influence the perception of physical therapy among community partners?

## BACKGROUND AND PURPOSE

Roxbury is highly diverse and one of the most impoverished sections of Boston, with 29.2% of people living below the federal poverty line. Twenty two percent of the population is Latino, and 52% of the population is black. Languages spoken at home include English (64.8%), Spanish (20.3%), and French Creole (3%).<sup>2</sup>

In order to help meet the medical needs of the community, the Center for Community Health Education Research and Service (CCHERS) partnered with Northeastern University's (NU) School of Nursing in their pioneering community-based nursing education model in 1991. In the early years of its partnership, CCHERS established service learning as part of the community-based curriculum at both Northeastern and its other academic partner, Boston University School of Medicine. Many Lower Roxbury residents had been exposed to medical and nursing

students through CCHERS network of 15 community health centers in the central city neighborhoods of Boston.

Community service learning has been a part of the physical therapist educational experience at Northeastern University since 1999. The service-learning program began as an honors seminar within the geriatrics course, and it is now threaded throughout the curriculum, beginning with an initial exposure for all students in their third year. Some students select CSL as their senior capstone project. More than 400 physical therapist students have been involved at 30 community sites, working with more than 300 children and 300 adults living in the Roxbury community of Boston. Community service learning projects have included balance and exercise programs for elders, fitness programs for children with and without disabilities, and health education programs for the community.

Over the years, we have collected information from students in the form of end-of-project student assessment surveys and reflection journals. These unpublished data are consistent with the literature that describes the positive effects of service learning on students, including improved communication skills, cultural awareness, advocacy and leadership skills, professional and personal development.<sup>3,5</sup> Other authors in this special issue of the *Journal of Physical Therapy Education* address the impact of service learning on physical therapist students. However, the impact of service learning on community perceptions of physical therapy as a profession has not been studied in much detail. The void of information is a significant one for physical therapists.

In 2000, the American Physical Therapy Association (APTA) House of Delegates approved its Vision Statement for the physical therapy profession, Vision 2020. In 2001, APTA released the "Strategic Plan for Transitioning to a Doctoring Profession."<sup>6</sup> The plan was developed to transition the physical therapy profession to a doctoring profession. Turner and Hodge<sup>7</sup> identified 8 key activities of a professional. One of the activities is the promotion of public recognition of physical therapy, which is explored in this pilot study.

As previously noted, anecdotal reports indicated that residents from the communities surrounding NU perceived physical therapy as a storefront operation that works with chiropractors and physicians to help patients successfully win insurance claims associated with work-related injuries or motor vehicle accidents. These perceptions are not positive ones, as it is well known that false insurance claims cause insurance rates to rise dramatically. These anecdotes came to the attention

of NU Department of Physical Therapy faculty members from students working in the community, local physical therapists, and the executive director of CCHERS.

### Literature Review

A review of the literature focused on the impact of CSL on the community and on community-based perceptions of physical therapy. Searches were conducted using the ERIC, CINAHL, Business Source Premier, Medline, and PubMed databases. Key words included, but were not limited to, the following: community service learning, assessment of CSL, community perceptions, consumer, patients, attitudes, understanding, awareness, knowledge, health professionals, and physical therapy.

Community service learning enriches discipline-specific learning and improves students' professional, personal, and interpersonal development; leadership skills; cultural awareness; and social responsibility.<sup>3,5</sup> In terms of community outcomes, Ferrari and Worrall<sup>8</sup> studied the effect of CSL on the community by exploring the community partners' perception of students. They found that overall community partners identified many student strengths, including organization, safety, commitment to service, work ethic, and adaptability to and sensitivity towards community diversity.

Little is known about the effects of CSL on university-community partnerships. Cruz and Giles<sup>9</sup> provided insights into barriers faced when conducting community-outcomes research. First, "community" must be defined. Is the community defined by geographic location, consumers of services, or by the staff of the agencies that provide services? Second, there can be many practical issues to address, including constraints of funding, time, and expertise. Finally, academicians must prove the value of CSL by showing improved student outcomes. In their case study, Polanyi and Cockburn<sup>10</sup> reported the academic challenges faced in conducting community-based research, including the need to function within the structure of the university and to bridge goals of the university with those of the community. Despite these challenges, there is great opportunity to "engage marginalized communities in critical reflection and . . . build people's capacity and commitment to collectively address real-world problems."<sup>10(p16)</sup>

In spite of the challenges to investigating community outcomes of CSL, the authors are compelled to understand and change the negative perceptions about physical therapy held by the residents of Lower Roxbury. Literature describing the public's perception of physical therapy is sparse, especially in the

United States. *Perception* is defined as the result of observing, a "mental image," and knowledge gained from the process of coming to know or understand something.<sup>11</sup> In his work with older adults and motivational factors, Sabin<sup>12</sup> noted that perceptions are influenced by experience, and, therefore, experience is a factor that will shape an individual's understanding.

Several authors have investigated the public's knowledge about physical therapy.<sup>13-16</sup> Their work supports Sabin's premise that exposure to physical therapy influences an individual's level of knowledge about the profession, including the nature of physical therapy services and issues related to direct access. Public perceptions, in the form of occupational prestige, have been studied in England, Australia, Canada, and Hong Kong.<sup>16,17</sup> These studies show physical therapy is held in high to intermediate esteem, comparable to doctors, judges, nurses, and police constables. It is disconcerting that there has been such limited research in this area in the US. How can physical therapists have direct access to patients if their patients do not know what they do?

What are the critical factors that influence an individual's choice to seek treatment by a physical therapist? In an interesting study by Mielenz, Dyrek, and Harris,<sup>18</sup> a large sample of urban and rural patients in North Carolina with low back pain were examined. The authors of the above study concluded that 2 factors were associated with a higher likelihood of people seeking the care of a physical therapist: a postsecondary level of education and availability of worker's compensation coverage.<sup>18</sup> Similar findings were reported in a large study of spine centers across the United States, with worker's compensation coverage and legal action against another party being strong predictors of the use of physical therapy.<sup>19</sup> Other studies show similar findings<sup>20,21</sup> that are consistent with the anecdotal descriptions reported to us by the residents of the Lower Roxbury community surrounding NU.

### METHODS

Northeastern University's Division of Research Integrity provided institutional review board approval for this project. Information was gathered through 3 methods: literature review, survey questions as part of an educational module, and focus groups or interviews as part of an overall program evaluation. This approach to data collection, known as data triangulation, was chosen to help preserve the validity of this mixed-design study, because it is likely that weaknesses or biases in one data set will be overcome or revealed by one of the others.<sup>22</sup>

Three of the four authors (Fitzpatrick, Colub-Victor, and Lowe) conducted the educational modules, surveys, interviews, and focus groups. There were two groups of participants. The first included community residents and the second was comprised of community partners. Community residents who participated in the survey and educational modules were predominately elders living independently or in assisted-living centers in multiple sites, but all lived within the same urban area. Participants were informed verbally of the purpose of the survey, which was to gather information about their understanding of the physical therapy profession. Their participation in the survey indicated consent. The survey was written in English and translated into Spanish as needed by a community outreach worker and provided to participants prior to the educational module. The survey was comprised of 10 questions (see Appendix). It queried community residents' understanding about physical therapy (eg, education required to become a physical therapist, level of exposure to physical therapy, problems treated by physical therapists). Surveys were administered before the presentation of disorder-specific educational modules, including arthritis and Alzheimer disease. Sessions were presented at the request of the community residents, scheduled for midday or early afternoon, and held in a common room within each community site.

Through focus groups or interviews, we collected data from community agency outreach workers and program directors that were CSL partners with NUPT. Three general, open-ended questions were asked during the focus groups and interviews. The questions were designed to identify aspects of CSL partner collaboration, partners' understanding of physical therapy and their relationship with NU. The questions were:

1. How is our collaboration going? What do you feel is going well, what can be improved? Where do you want to go for the future?
2. What is physical therapy? What has influenced your understanding? What brought you to this understanding?
3. How would you describe your relationship with NU? Positives? Negatives? Any change over the years? If so, what has influenced that change?

Community partners were invited to attend 1 of 4 focus group meetings (2 offered in the morning and 2 offered in the late afternoon). Those who attended a focus group received a 1-page written description of the study, which was referred to as an "unsigned consent form" by Northeastern University's Institutional Review Board. The

community partner's participation indicated consent. Three authors were present for the focus groups, one as facilitator, and two as recorders. The focus groups also were audiotaped with verbal permission of the participants.

An alternative telephone interview session was offered to partners who could not attend one of the focus groups. The same open-ended questions above were asked during the interviews, and verbal participation indicated consent. One author conducted all interviews.

## RESULTS

### Community Residents Survey Results

Fifty-three community residents voluntarily answered the survey questions during 5 educational sessions conducted in the Lower Roxbury neighborhood of Boston. Table 1 shows the general demographics of the community residents who participated in the survey. The group was divided into 4 subgroups:

1. Those who reported having exposure to physical therapy, but not CSL (n = 23).
2. Those without exposure to physical therapy, but experience with CSL (n = 8).
3. Those who have had exposure to both physical therapy and CSL (n = 11).
4. Those with no exposure to physical therapy or CSL (n = 11).

Results show that 21% of residents reported that they did not have any prior experience or exposure to physical therapy, 64% had seen a physical therapist, and 36% participated in CSL physical activity programs conducted by NUPT on a weekly basis in the community residences.

The first 2 questions of the survey assessed participants' knowledge about the education required to become a physical therapist and the need for physical therapists to obtain a

license to practice. Results indicate that 87% of the community residents knew that a physical therapist needed to be licensed, but only 45% knew that a college degree was required to be a physical therapist (Table 2).

The third question asked participants to identify, from a list of 13 illnesses and impairments, which ones would be treated by physical therapists. The top 4 illnesses or conditions were identified as shoulder pain (79%), back and neck injuries (69%), poor balance (63%), and broken hip (60%). Only 6% of the community residents knew that physical therapist's offered services that might be of benefit to people with HIV/AIDS. Results are summarized in Table 3.

Table 4 summarizes the responses to the survey question, "Which of the following activities does a physical therapist do the most?" The community residents' top 4 responses were that physical therapists teach exercise, teach people how to walk, give massages, and teach proper lifting. Interestingly, there appeared to be no difference between the groups that had seen a physical therapist versus the group that had no exposure to physical therapy. Only 6% (n = 3) of community residents responded that a physical therapist could diagnose health problems. All groups recognized that a doctor was the most likely person to send a patient to physical therapy for treatment (Table 5). It should be noted that not all participants answered questions 3, 4, and 5; despite outreach workers' efforts to translate these particular questions, some participants still had difficulty understanding them. Table 6 summarizes the responses received when residents were asked to complete the statement "Physical therapists care most about . . ." with selections from a finite set of possibilities. Community residents indicated that physical therapists cared most about getting the patient better (79%) and helping the patient stay healthy (60%). Only 19% of the community residents felt that physical therapists cared most about money,

**Table 1. Demographics of Community Residents by Group**

|                            | Total            | Female          | Male            | Not specified  | Age (mean) | Age Range |
|----------------------------|------------------|-----------------|-----------------|----------------|------------|-----------|
| Number of residents        | 100%<br>(n = 53) | 64%<br>(n = 34) | 25%<br>(n = 13) | 11%<br>(n = 6) | 62.5       | 35-95     |
| Physical Therapy only (PT) | 43%<br>(n = 23)  | 44%<br>(n = 15) | 61%<br>(n = 8)  | 0              | 56.5       | 35-72     |
| Service Learning only (SL) | 15%<br>(n = 8)   | 21%<br>(n = 7)  | 8%<br>(n = 1)   | 0              | 66         | 61-71     |
| Both PT and SL (B)         | 21%<br>(n = 11)  | 23%<br>(n = 8)  | 8%<br>(n = 1)   | 33%<br>(n = 2) | 72         | 54-95     |
| No exposure to PT (N)      | 21%<br>(n = 11)  | 12%<br>(n = 4)  | 23%<br>(n = 3)  | 67%<br>(n = 4) | 72.2       | 51-84     |

**Table 2. Knowledge of Education and Licensure\***

| Knowledge Type: | Total<br>(N = 53) | PT<br>(n = 23)  | SL<br>(n = 8)  | B<br>(n = 11)   | N<br>(n = 11)  |
|-----------------|-------------------|-----------------|----------------|-----------------|----------------|
| Affirmative     |                   |                 |                |                 |                |
| College degree  | 45%<br>(n = 24)   | 35%<br>(n = 8)  | 63%<br>(n = 5) | 64%<br>(n = 7)  | 36%<br>(n = 4) |
| Licensure       | 87%<br>(n = 46)   | 91%<br>(n = 21) | 75%<br>(n = 6) | 91%<br>(n = 10) | 82%<br>(n = 9) |

\*PT = physical therapy; SL = service learning only; B = both PT and SL; N = no exposure to physical therapy.

**Table 3. Conditions Seen by Physical Therapist\***

| Condition                  | Total<br>(N = 48) | PT<br>(n = 23)  | SL**<br>(n = 3) | B<br>(n = 11)  | N<br>(n = 11)  |
|----------------------------|-------------------|-----------------|-----------------|----------------|----------------|
| Shoulder pain              | 79%<br>(n = 38)   | 96%<br>(n = 22) | 100%<br>(n = 3) | 45%<br>(n = 5) | 73%<br>(n = 8) |
| Back and neck injuries     | 69%<br>(n = 33)   | 87%<br>(n = 20) | 33%<br>(n = 1)  | 36%<br>(n = 4) | 73%<br>(n = 8) |
| Poor balance               | 63%<br>(n = 30)   | 65%<br>(n = 15) | 0               | 64%<br>(n = 7) | 73%<br>(n = 8) |
| Broken hip                 | 60%<br>(n = 29)   | 74%<br>(n = 17) | 67%<br>(n = 2)  | 45%<br>(n = 5) | 45%<br>(n = 5) |
| Stroke                     | 42%<br>(n = 20)   | 39%<br>(n = 9)  | 33%<br>(n = 1)  | 45%<br>(n = 5) | 45%<br>(n = 5) |
| Neck spasm in children     | 31%<br>(n = 15)   | 35%<br>(n = 8)  | 67%<br>(n = 2)  | 36%<br>(n = 4) | 9%<br>(n = 1)  |
| Heart attack/heart disease | 27%<br>(n = 13)   | 22%<br>(n = 5)  | 33%<br>(n = 1)  | 45%<br>(n = 5) | 18%<br>(n = 2) |
| Cerebral palsy             | 25%<br>(n = 12)   | 43%<br>(n = 10) | 0               | 9%<br>(n = 1)  | 9%<br>(n = 1)  |
| Foot ulcer                 | 19%<br>(n = 9)    | 26%<br>(n = 6)  | 0               | 18%<br>(n = 2) | 9%<br>(n = 1)  |
| Asthma                     | 19%<br>(n = 9)    | 17%<br>(n = 4)  | 33%<br>(n = 1)  | 27%<br>(n = 3) | 9%<br>(n = 1)  |
| Pregnant woman             | 17%<br>(n = 8)    | 22%<br>(n = 5)  | 0               | 18%<br>(n = 2) | 9%<br>(n = 1)  |
| Diabetes                   | 17%<br>(n = 8)    | 13%<br>(n = 3)  | 33%<br>(n = 1)  | 27%<br>(n = 3) | 9%<br>(n = 1)  |
| HIV/AIDS                   | 6%<br>(n = 3)     | 4%<br>(n = 1)   | 0               | 18%<br>(n = 2) | 0              |

\*PT = physical therapy; SL = service learning; B = both PT and SL; N = no exposure to physical therapy.

\*\*Only 3 people in SL group answered this question.

and only 13% indicated that physical therapists cared most about helping the insurance company or working with their lawyers. Chi-square analysis of questions 1, 5, and 6 was found to be insignificant at values:  $p = .28$ ,  $\chi^2 = 3.83$ ;  $p = .94$ ,  $\chi^2 = 3.52$ ; and  $p = 0.22$ ,  $\chi^2 = 4.41$ , respectively.

### Community Partners Focus Group and Interview Results

Six community partners participated in a focus group to respond to the open-ended questions; two community partners chose to be interviewed by phone. Transcripts of the fo-

cus groups and interviews were coded to reveal common themes, trends, key words, and specificity of responses. Coding was accomplished individually by each researcher and then collectively. Overall, the responses were positive. The focus group members reported that communication was effective, timely, and usually accomplished via face-to-face interaction, phone, and e-mail. Students were reported to be well prepared and culturally appropriate for the community residents (elderly, Latino adults, children with disabilities) as illustrated by the following quote.

*The seniors that are Latino have cultural views or customs that they like...to work with somebody that is warm, friendly, smiles and who can understand that they do things slowly, that they need sometimes repetition. ... They like that.*

Participants found the student group leaders sincere, cheerful, and possessing good attitudes and knowledge. Community partners stated that the residents "got a lot of stimulation" from the energy of the students and that they enjoyed seeing "new faces." Students were role models of the profession and of the university. Moreover, regarding the NU-community collaboration, community partners stated that NU was not just "taking" from the community, but giving back, which was seen as critical to the residents.

Based on the review of the transcripts and audio tape recordings, community partners demonstrated an enhanced understanding of the profession of physical therapy. This was discussed by each of the community partners. According to their feedback, elders at their community sites were more aware of using exercise for pain relief. Those who worked with elders in assisted-living centers indicated that not only were elders more aware of physical therapy, but so were the staff who attended educational modules offered by students and faculty. For example, one of the community partners, who represented an assisted-living center without a physical therapist on staff, reported: "Our nurses are now incorporating a fall screening program and assessing potential fall hazards for each resident since working with the NUPT program."

The teaching staff of a program for children with profound disabilities stated that their understanding of physical therapy was influenced by their exposure to physical therapy within the context of the children's' individualized education plans. One teacher stated that her knowledge of physical therapy has grown as "a process of hands-on learning with the physical therapist in our school." A pediatrician in the focus group stated that prior to collaborating in the CSL program, her understanding of physical therapy was "traditional," ie, that a physician referred an individual for evaluation and treatment of a condition. Since development of the partnership, her definition has expanded to view physical therapists as "coaches" involved in prevention and wellness. This was a common theme among all the community partners. Furthermore, one of the outreach workers stated that due to her relationship with NUPT, she is encouraging people of color to investigate physical therapy as a career.

**Table 4. Activities Done by Physical Therapist\***

| Intervention              | Total<br>(N = 48) | PT<br>(n = 23)  | SL**<br>(n = 3) | B<br>(n = 11)  | N<br>(n = 11)  |
|---------------------------|-------------------|-----------------|-----------------|----------------|----------------|
| Teach exercise            | 71%<br>(n = 34)   | 91%<br>(n = 21) | 33%<br>(n = 1)  | 45%<br>(n = 5) | 64%<br>(n = 7) |
| Teach how to walk         | 63%<br>(n = 30)   | 70%<br>(n = 16) | 100%<br>(n = 3) | 45%<br>(n = 5) | 55%<br>(n = 6) |
| Give massages             | 48%<br>(n = 23)   | 61%<br>(n = 14) | 67%<br>(n = 2)  | 9%<br>(n = 1)  | 55%<br>(n = 6) |
| Teach proper lifting      | 46%<br>(n = 22)   | 52%<br>(n = 12) | 33%<br>(n = 1)  | 36%<br>(n = 4) | 45%<br>(n = 5) |
| Use hot packs             | 35%<br>(n = 17)   | 57%<br>(n = 13) | 33%<br>(n = 1)  | 0              | 27%<br>(n = 3) |
| Teach how to stay healthy | 31%<br>(n = 15)   | 22%<br>(n = 5)  | 33%<br>(n = 1)  | 45%<br>(n = 5) | 36%<br>(n = 4) |
| Diagnose health problems  | 6%<br>(n = 3)     | 0               | 33%<br>(n = 1)  | 9%<br>(n = 1)  | 9%<br>(n = 1)  |
| Prescribe medication      | 2%<br>(n = 1)     | 0               | 33%<br>(n = 1)  | 0              | 0              |

\*PT = physical therapy; SL = service learning; B = both PT and SL; N = no exposure to physical therapy.

\*\*Only 3 people in SL group answered this question.

**Table 5. Refer to Physical Therapy\***

| Referral source | Total<br>(N = 49) | PT<br>(n = 23)   | SL**<br>(n = 4) | B<br>(n = 11)  | N<br>(n = 11)  |
|-----------------|-------------------|------------------|-----------------|----------------|----------------|
| Doctor          | 82%<br>(n = 40)   | 100%<br>(n = 23) | 75%<br>(n = 3)  | 64%<br>(n = 7) | 64%<br>(n = 7) |
| Chiropractor    | 49%<br>(n = 24)   | 61%<br>(n = 14)  | 25%<br>(n = 1)  | 45%<br>(n = 5) | 36%<br>(n = 4) |
| Lawyer          | 26%<br>(n = 13)   | 39%<br>(n = 9)   | 25%<br>(n = 1)  | 18%<br>(n = 2) | 9%<br>(n = 1)  |
| Self referral   | 26%<br>(n = 13)   | 30%<br>(n = 7)   | 25%<br>(n = 1)  | 9%<br>(n = 1)  | 36%<br>(n = 4) |

\*PT = physical therapy; SL = service learning; B = both PT and SL; N = no exposure to physical therapy.

\*\*Only 4 people in SL group answered this question.

**Table 6. Major Concern of Physical Therapist\***

| Concern                          | Total<br>(N = 53) | PT<br>(n = 23)  | SL<br>(n = 8)  | B<br>(n = 11)  | N<br>(n = 11)  |
|----------------------------------|-------------------|-----------------|----------------|----------------|----------------|
| Getting the patient better       | 79%<br>(n = 42)   | 96%<br>(n = 22) | 75%<br>(n = 6) | 64%<br>(n = 7) | 64%<br>(n = 7) |
| Helping the patient stay healthy | 60%<br>(n = 32)   | 52%<br>(n = 12) | 63%<br>(n = 5) | 81%<br>(n = 9) | 55%<br>(n = 6) |
| Money                            | 19%<br>(n = 10)   | 13%<br>(n = 3)  | 13%<br>(n = 1) | 36%<br>(n = 4) | 18%<br>(n = 2) |
| Helping the insurance company    | 13%<br>(n = 7)    | 4%<br>(n = 1)   | 25%<br>(n = 2) | 18%<br>(n = 2) | 18%<br>(n = 2) |
| Working with my lawyer           | 13%<br>(n = 7)    | 9%<br>(n = 2)   | 25%<br>(n = 2) | 0              | 27%<br>(n = 3) |

\*PT = physical therapy; SL = service learning; B = both PT and SL; N = no exposure to physical therapy.

The responses to the questions regarding the relationship between the university and the community partners also were positive. Overall, the community partners stated that their positive relationship with the university was influenced by their collaboration with NUPT and CSL. The outreach workers stated that originally the community's view of the university was that "(they) don't do anything for us" and "(they come) to work with us. . . and leave" Since instituting CSL programs, the community partners commented that mutual learning now occurs between and among the community residents and the students about culture and exercise. One of the community outreach workers commented: "The community is valued. (It) comes across that (the students are) learning from community as well as teaching the community." Community partners agreed that positive outcomes are related to a lengthy process of collaboration and continuity over the years.

## DISCUSSION

This pilot study may be one of the first to investigate public perceptions of physical therapy in the United States. It is surprising that so little has been published on this topic. The only study found in the literature search was by Snow.<sup>14</sup> Although the results were similar to those of our study, the method used (telephone interviews) and demographics were different.

Generalization of the results of this study is limited by a small sample of convenience, but seems to suggest that community service learning plays an important role in increasing awareness of physical therapy in this urban community. Residents and community partners who were exposed to physical therapy via CSL had a greater appreciation of the education required to be a physical therapist.

Turner<sup>17</sup> has studied the perception of physical therapists in many countries within the framework of occupational prestige. One of the dimensions of occupational prestige is the level of education required for the profession. It is interesting that residents who had exposure to physical therapy, but not to CSL, were less aware of the educational requirements for a physical therapist. Perhaps the context of CSL and the regular interaction of university students with residents brought about more of an opportunity to discuss the training necessary to become a physical therapist. Literature indicates that those with fewer years of formal education and low socioeconomic background are less likely to know what physical therapy is and what role it may play in their health care.<sup>19</sup> This study's population sample fits this model.

Knowledge about the variety of conditions treated by physical therapists and the services physical therapists provide clearly affects access to physical therapy. Snow<sup>14</sup> found that 14.8% of his sample did not know what a physical therapist does. The respondents who knew what a physical therapist could do indicated mainly musculoskeletal problems as reasons to seek services from a physical therapist. This is consistent with the results reported by Sheppard<sup>15</sup> in Australia and with those found in our survey. The only difference discovered in our survey was that community residents identified poor balance as a common condition with which a physical therapist could help. This is likely due to the age of the people who completed the survey and the fact that NUPT frequently offers falls prevention service-learning programs. Few community residents identified that physical therapists diagnose health problems. As discussed by Sahrman,<sup>23</sup> physical therapists do diagnose movement-based problems, which may affect health.

Many people who have been exposed to physical therapy have a positive opinion of the profession.<sup>24,25</sup> This perception was reflected in our survey, with 79% of community participants responding that physical therapists were interested in helping them get better and 60% indicating that physical therapists wanted to help them stay healthy. This does not seem to support the anecdotal information received from the community that physical therapists only work to help with worker's compensation and motor vehicle accident insurance claims.

It is important for all health professionals to use different opportunities wisely to educate the public about their roles in the health care system.<sup>26,27</sup> As a profession moving toward direct access, physical therapists must utilize all potential venues to reach people about the scope of physical therapy practice and its role in healthcare. Community service learning, already an important educational pedagogy, may be another opportunity to impact the public's knowledge and attitudes about the profession, fostering a clearer image of what we can do, helping us reach those appropriate for care.

As APTA moves toward achieving Vision 2020, the expansion of minority representation and participation in physical therapy is critical and requires creative methods to accomplish this objective. Community service learning provides such an opportunity. NUPT graduate students have developed and implemented an instructive interactive module on health professions as part of their educational materials for urban children ages 6-12. This information is included with the collective portfolio provided to the parents

and families at the conclusion of the program. Unpublished preliminary data indicates that the children have gained awareness of the role of a physical therapist and exercise, how the physical therapy profession helps people of all ages, and the number of different types of settings in which a physical therapist may practice. This awareness provides an opportunity for urban, minority youth to gain a greater understanding of physical therapy as a possible health care career path.

It is important that further research be done to investigate factors that influence the public's perception and knowledge of physical therapy. That information is essential to the promotion of physical therapy services to the health care consumer.

### Limitations

When considering the results of this pilot study, one cannot ignore its limitations. The sample size was small, and it was restricted to a specific diverse urban setting. Also, due to the qualitative nature on much of the data, generalizability to other communities (rural, suburban) or to other parts of the country may be very limited. Community residents and partners may have been biased in their answers, as faculty members who work with them on a regular basis were conducting the interviews. Moreover, the brief survey that was developed to gather data from community residents needs to be assessed for its cultural and linguistic qualities for diverse populations and tested for reliability and validity. While there are many limitations to our study, it provides critical preliminary information about the work physical therapists must do to improve the public's understanding of and perception of the profession and creates a preliminary framework that can be used to study this phenomenon in greater detail. This is vital to advancing the profession's goals related to direct access, and it provides yet another reason to incorporate service learning into a physical therapist education program curriculum.

### CONCLUSION

Community partners and residents who have been exposed to physical therapy may have a better understanding of the profession than those who have not. More specifically, community partners and residents who have been exposed to physical therapy through CSL may have a positive understanding of the benefits of exercise on their health and a more positive relationship with the university. Community service learning has fostered mutual learning experiences for the students, community, residents, and community partners. CSL can be used to address issues of public health, health care access,

Vision 2020, and ultimately to achieve the objectives of Healthy People 2010. Community service learning might help the profession of physical therapy move closer to achieving Vision 2020, because it may increase consumer awareness of physical therapy services. Future studies addressing the public's perceptions of physical therapy are essential if we are to be "recognized by consumers and other health care professionals as the practitioners of choice to whom consumers have direct access."<sup>27</sup>

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## Appendix. Northeastern University Physical Therapy Survey

Please take a moment to complete the questions listed below as they relate to your knowledge of the profession of physical therapy. Your thoughtful comments are appreciated and will help us. . . . . Thank you.

1. To be a physical therapist, you must have:

- a. high school diploma
- b. certification degree
- c. college degree
- d. on the job training

2. Do physical therapists need a license to work with patients?

Yes                      No

3. Which of the following types of illnesses or conditions do physical therapists work with? Check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> a. shoulder pain               | <input type="checkbox"/> g. foot ulcer             |
| <input type="checkbox"/> b. broken hip                  | <input type="checkbox"/> h. cerebral palsy         |
| <input type="checkbox"/> c. neck spasm in babies        | <input type="checkbox"/> i. HIV/AIDS               |
| <input type="checkbox"/> d. asthma                      | <input type="checkbox"/> j. Diabetes               |
| <input type="checkbox"/> e. stroke                      | <input type="checkbox"/> k. poor balance           |
| <input type="checkbox"/> f. heart attack/ heart disease | <input type="checkbox"/> l. pregnant woman         |
|   | <input type="checkbox"/> m. back and neck injuries |

4. Place a check mark by the **ONE** condition you think physical therapists work with most often.

- |   |  |
|---|--|
| <input type="checkbox"/> a. shoulder pain               | <input type="checkbox"/> g. foot ulcer             |
| <input type="checkbox"/> b. broken hip                  | <input type="checkbox"/> h. cerebral palsy         |
| <input type="checkbox"/> c. neck spasm in babies        | <input type="checkbox"/> i. HIV/AIDS               |
| <input type="checkbox"/> d. asthma                      | <input type="checkbox"/> j. diabetes               |
| <input type="checkbox"/> e. stroke                      | <input type="checkbox"/> k. poor balance           |
| <input type="checkbox"/> f. heart attack/ heart disease | <input type="checkbox"/> l. pregnant woman         |
|   | <input type="checkbox"/> m. back and neck injuries |

5. Which of the following activities do physical therapists do the most? **Mark your top four answers with number 1 being the most often.**

- |  |   |
|--|---|
| <input type="checkbox"/> a. teach exercise       | <input type="checkbox"/> e. teach how to walk         |
| <input type="checkbox"/> b. give massages        | <input type="checkbox"/> f. teach how to stay healthy |
| <input type="checkbox"/> c. use hot packs        | <input type="checkbox"/> g. prescribe medications     |
| <input type="checkbox"/> d. teach proper lifting | <input type="checkbox"/> h. diagnose health problems  |

6. Who is **MOST** likely to send a patient to a physical therapist for treatment? (check all that apply)

- a. doctor
- b. chiropractor
- c. lawyer
- d. the patient herself or himself

7. Physical therapists care most about: (circle all that apply)

- a. money
- b. getting the patient better
- c. helping me stay healthy
- d. helping the insurance company
- e. working with my lawyer

8. Have you participated in an exercise group run by Northeastern University Physical Therapy students?

Yes                      No

9. Have you or a family member ever seen a physical therapist for treatment?

Yes                      No

Age \_\_\_\_\_ Please circle if you are male (M) or female (F).

Please make any comments you may have about physical therapist: