

Teaching Medical Students About Disability: The Use of Standardized Patients

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Abstract

Standardized patients (SPs), now a mainstay of the undergraduate medical education experience, are beginning to play larger roles in helping students build competencies to better serve patients who have disabilities, in educating students about the lived experiences of persons with disabilities, and in testing students' understanding of disability-related issues. In this article, the authors

discuss several U.S. training programs that involve SPs who have disabilities or SPs who do not have disabilities but who portray patients who do. The authors review the goals of each program (e.g., to provide students with opportunities to gain experience with patients with disabilities), describe their commonalities (enhancing students' interview skills) and differences (some

programs are educational; some are evaluative), and summarize the evaluative data of each. The authors also explore the benefits and challenges of working with SPs with disabilities and of working with SPs without disabilities. Finally, they consider the practical issues (e.g., recruiting SPs) of developing and implementing such programs.

Most students enter, and many often leave, medical school with little or no exposure to people with disabilities.¹ This

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The Alliance for Disability in Health Care Education is a collaborative network of health care educators promoting the inclusion of disability-related content in health care curricula.

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gap in experience renders them unprepared to address the needs of patients with the broad array of disabilities—be they physical, intellectual, or emotional; acquired or congenital—whom they will likely encounter in their professional careers. In two consecutive reports, the Office of the Surgeon General reported that people with disabilities experience significant health disparities, cited the lack of provider training as a major barrier to high-quality health care for this population, and identified the training of health care providers as a central solution.^{2,3} Each graduate needs to be prepared to provide care for these patients, whether that care relates to their primary disabling conditions or, more likely, to secondary or unrelated acute care issues.

Medical schools and training programs have used a variety of approaches to teach medical students about disability. Schools have provided students with didactic instruction to help them gain a greater understanding of different ways to view disability and to increase their knowledge of disability-related issues (such as the Americans with Disabilities Act [ADA]). Some schools guide learners through hands-on exercises that simulate the experience of having a disability; some provide opportunities for students to shadow practicing professionals who serve persons with disabilities; and some set up various in-home experiences for students.^{4–8}

One mainstay of medical education that schools are increasingly adapting for teaching students about disability is the standardized patient (SP) exercise. Barrows,⁹ the creator of the first SP curriculum, used the term *simulated patient* to refer to a well individual who, following careful training and preparation, portrayed a patient with an illness based on an actual case. He used the term *standardized patient* as “an umbrella for both simulated patients and actual patients who have been carefully coached to present their own illnesses in a standardized and unvarying way.”^{9(p444)} Barrows saw working with SPs as a helpful transition to working with real patients because it gave students an opportunity to practice their skills and build their confidence, particularly with regard to patients who might raise potentially sensitive issues. The first SP that Barrows worked with was actually an actor without a disability who portrayed a patient with multiple sclerosis (MS).⁹ A substantial majority of medical schools use the SP exercise to teach clinical skills and/or to assess clinical competence.^{10–12} This exercise has become particularly common since its introduction as a core method of assessing the clinical skills of students through objective structured clinical examinations (OSCEs), especially the United States Medical Licensing Examination.

SP exercises are an example of role-play, which as Quirk^{13(p101)} notes, “promote[s] perspective-taking, reflection and self-

assessment.” In addition, SP scenarios give faculty the opportunity to introduce issues (e.g., interviewing a nonverbal patient) that may not arise frequently in a particular clinical setting and to control the content and level of complexity of clinical problems. SP exercises allow “teachable moments to be created, rather than waited for.”^{14(p323)}

These strengths render the SP approach particularly well suited for teaching students about disability. The perspective-taking and reflection that this approach facilitates are of particular importance when learning about the experiences and needs of patients with disabilities with whom medical students may have little familiarity. Further, interacting with an SP who contributes to the clinical encounter also reinforces the role of the patient as a valuable source of knowledge,¹³ so when students encounter SPs who have disabilities, they have the opportunity to interact with individuals who are “experts” on the complexities of living with primary disabling conditions—better experts, perhaps, than many physicians. Some research has suggested that persons with disabilities are the most credible source of information about living with a disability.¹⁵ Therefore, involving individuals with actual disabilities as SPs reinforces the credibility of the information that they share with the students.

Although the SPs with whom Barrows worked were actual patients, the trend in medical education generally has been toward employing actors who do not have a relevant medical issue and who do not have a disability. Faculty whose programs employ SPs with disabilities have generally involved these individuals because they believe that “you can’t fake it”¹⁶; that is, an individual with an actual disability may have physical traits, mannerisms, or other characteristics that an individual *without* a disability cannot realistically portray.^{16,17} And, at least as important, is the sense that individuals with disabilities are best able to educate students about their health care needs and the everyday realities of living with a disability.

SP programs that include or focus on patients with disabilities may be oriented toward developing specific skills or competencies and can also educate

students about the lived experiences of these individuals.^{16,17} In addition, they can be used for evaluative purposes as a test of students’ understanding of lessons taught through other methods.^{18–20}

In this article, we will describe several specific U.S. programs in which medical students work with SPs to learn about working with persons with physical, intellectual, and developmental disabilities. We will also explore the benefits, challenges, and resources necessary for implementing such programs.

We reviewed programs implemented by members of the Alliance for Disability in Health Care Education, along with the programs that informed their development. We also reviewed the programs that we identified through a literature search. We searched PubMed, Google Scholar, and Ovid, using as search terms various combinations of the words “standardized,” “patients,” and “disabilities” (both with and without quotes). Although the term “handicapped” is no longer preferred, we used it in combination with “standardized” and “patients” in an effort to identify older articles. In addition, we hand searched the reference sections of the articles we identified in order to uncover additional SP programs. Below (and in Table 1), we briefly describe all seven of the SP programs focused on and/or involving individuals with disabilities that we found; however, given the rapid expansion of such SP programs nationwide, others likely exist.

Program Descriptions

University of Tennessee College of Medicine Chattanooga

In the early 1990s, students and residents in the University of Tennessee College of Medicine Chattanooga Family Practice Unit began to do a rotation at the Morton J. Kent Habilitation Center at Orange Grove. Still in operation, the program involves SPs who are adolescents and young adults with a variety of developmental disabilities, including intellectual disabilities. Rick Rader,^{21(p38)} the physician who created the program, describes its learning objectives in this way:

We want the next generation of physicians to appreciate the fact that

individuals with developmental disabilities also get the flu, earaches, sprained wrists, and cancer. They need to be treated with the same respect, dignity, and thoroughness as the other patients in the waiting room. With patient surrogates ... we’re hoping we can help doctors to not only care for these [individuals], but also to care about them.

Accordingly, the SPs present with diagnoses commonly found in primary care. In addition to participating in medical interviews with individual students, these SPs perform their roles in large-scale grand rounds presentations. At times, they also work with nursing, dental, allied health, and psychology students. Medical students from the Quillen College of Medicine of East Tennessee State University (Johnson City, Tennessee) also participate in the Orange Grove program. In addition, the program has hosted students from the University of Medicine and Dentistry of New Jersey–New Jersey Medical School (UMDNJ–NJMS).

University of Massachusetts Medical School–Worcester, Massachusetts

In response to the 1990 passage of the ADA, the University of Massachusetts Medical School (UMMS) incorporated, in 1993, two SPs with disabilities into its required medicine clerkship OSCEs. The objectives were to enhance students’ clinical skills with regard to patients with disabilities and to enhance their understanding of the ADA.¹ The program started with one SP with multiple sclerosis and another SP with quadriplegia. Faculty wrote cases for each SP, based on each individual’s own medical history, with respective diagnoses of lethargy and shortness of breath.¹

Students performed a focused history and physical exam in 15 minutes and then recorded their differential diagnosis and treatment plan. The UMMS program continued for several years and eventually included additional SPs. Ultimately, because of a lack of funding, the program ended, but there has been discussion of reviving it.

Matheny Medical and Educational Center–Peapack, New Jersey, and UMDNJ–NJMS–Newark, New Jersey

The SP program at Matheny Medical and Educational Center (Matheny), a hospital that serves persons with cerebral palsy and other primarily physical

Table 1

Commonalities and Differences Among Programs That Employ Standardized Patients (SPs) to Teach About Disability

University and setting <small>Ref. no.</small>	Type of actor and disability portrayed	Presenting complaint	Purpose	Funding	Method of evaluating the SP exercise
University of Tennessee College of Medicine Chattanooga ²¹	Adolescents and young adults with developmental disabilities, including intellectual disabilities	Variety of common conditions	Educational—To develop skills in interviewing persons with developmental disabilities	Orange Grove Center funding	None at this time
University of Massachusetts Medicine Clerkship ¹	Adults with spinal cord injuries and multiple sclerosis	Shortness of breath and lethargy	Educational—To develop skills in interviewing persons with physical disabilities	Massachusetts Developmental Disabilities Council grant	Pre/post survey of knowledge and attitudes
Matheny Medical and Educational Center/UMDNJ-NJMS* Pediatrics Clerkship ²²	Adults with cerebral palsy and Lesch-Nyhan disease who have limited ability to communicate verbally	Variety of common conditions	Educational—To develop skills in interviewing persons with limitations in verbal communication	Matheny Medical and Educational Center funding	Pre/post survey of attitudes
Tufts University School of Medicine Family Medicine Clerkship ¹⁶	Adults with a variety of physical disabilities and one with blindness	Shoulder tendonitis	Educational—To develop skills in interviewing persons with physical disabilities and blindness	Massachusetts Developmental Disabilities Council grant, Health Resources and Services Administration grant, Tufts University School of Medicine funding	Pre/post survey of attitudes and student ratings; qualitative methods (e.g., digital recording, interviews, focus groups) ^{24,25}
University of South Carolina Family Medicine Clerkship ^{19,23}	Adults with spinal cord injuries or dyads of adults with intellectual disabilities accompanied by a standardized caregiver	Diabetes/fatigue for SPs with spinal cord injuries and hypertension for SPs with intellectual disabilities	Evaluative—To assess impact of lectures	U.S. Centers for Disease Control and Prevention Disability and Health Program grant	NA; SP exercise used as evaluative tool only
Tulane University School of Medicine Interdisciplinary Clerkship ¹⁸	Adults without disabilities portraying patients who have hemorrhagic stroke with some recovery, but persistent hemiplegia	No additional diagnoses	Evaluative—To assess impact of workshop	NA	Poststation survey of knowledge and attitudes
Medical College of Wisconsin Internal Medicine Clerkship ²⁰	Physical therapists without disabilities portraying individuals with dense right hemiplegia	No additional diagnoses	Evaluative—To assess technique of turning a patient in bed	NA	Student ratings

* University of Medicine and Dentistry of New Jersey—New Jersey Medical School.

developmental disabilities, is intended to expose medical students to persons with multiple disabilities, including impairments in verbal communication. The curriculum's primary goals are as follows:

1. To increase students' comfort with patients who have multiple disabilities;
2. To develop students' skills in communicating with nonverbal patients; and

3. To help students disassociate patients' disabilities from their capacity to be good sources of information and partners in the care process.²²

Since 1995, the Matheny SP curriculum has been a required component of a one-day rotation for third-year students participating in the UMDNJ-NJMS pediatrics clerkship. SPs, recruited from the inpatient population, present with complaints of acute illnesses that are also relatively common in the general

population (e.g., appendicitis, pneumonia).²²

This program led to a National Institute on Disability and Rehabilitation Research (NIDRR)-funded project focused on developmental disabilities and communicating with nonverbal patients. The NIDRR project included two SP scenarios and resulted in training materials that were disseminated to all Association of American Medical

Colleges (AAMC)—member schools in the United States.

Tufts University School of Medicine—Boston, Massachusetts

At Tufts University School of Medicine (Tufts), the SP curriculum is part of the family medicine clerkship. Learning objectives include the following:

1. teaching students about the interface between primary care and disability; that is, both improving their ability to assess the relationship between the presenting complaint and the disability and enhancing their skills for negotiating with patients to establish a shared goal that is realistic but also conforms to the highest standards of patient care,
2. acquainting students with the lived experiences of persons with disabilities,
3. communicating the message that people with disabilities have full lives including work, relationships, and responsibilities—just like people without disabilities, and
4. enhancing students' ability to communicate comfortably and effectively with any patient with disabilities, regardless of their eventual specialty.¹⁶

An advisory committee of community members and physicians informed the curriculum's goals as well as the SP case content to ensure realism. Also, because patients with disabilities frequently confront stigma in their interactions with physicians, the committee wanted the curriculum to focus on issues (e.g., assessing function, viewing the patient as an authoritative source of information) critical to the care of these individuals. Further, the committee advised that if students were not informed ahead of time of the fact that they would be interviewing a patient with a disability, the interaction would be more realistic, and they (the students) would have an opportunity to grapple with their own reactions, including their biases, in a setting that closely resembles actual practice.¹⁶

The primary complaint that SPs portray—shoulder pain—was chosen because “it is not only a common problem for all adults, but it has particular implications for patients with physical disabilities, as many are critically

dependent upon shoulder function.” Moreover, shoulder pain is a common secondary condition for patients with physical disabilities.¹⁶ The case script prompts students to address not only the presenting problem but also its interaction with the preexisting disability and its impact on the patient's daily life. Students do not perform a physical examination. After interviewing the SP and receiving feedback, each student has the opportunity to ask any questions he or she may have in mind about disability—whether they pertain to the SP's specific disability or about life with a disability generally—which adds significantly to the richness of the learning experience. The SP exercise is followed by a 15- to 20-minute debriefing session in which students come together with the faculty and SPs to discuss their responses to the exercise and share any lessons they learned.¹⁶

University of South Carolina School of Medicine—Columbia, South Carolina

In 2006, the University of South Carolina (USC) School of Medicine modified its existing SP scenarios to be able to assess the impact of a newly developed curriculum that focused on primary care to meet the needs of patients with disabilities. The curriculum includes lectures given during the second and third years of medical school that focus specifically on disability.^{19,23}

The SP exercise, meant to evaluate students' responses to these lectures, occurs at the culmination of the required third-year family medicine rotation as part of the OSCE. SPs with disabilities, as well as SPs without disabilities, play roles. Students are not informed that they may see a person with a disability during their OSCE. Learning objectives include

1. increasing students' awareness of disability prevalence;
2. assessing students' knowledge of high-risk issues (i.e., of associated or secondary conditions, such as epilepsy for people with intellectual disabilities or osteoporosis for people with mobility impairments who are non-weight bearing);
3. assessing students' communication skills; and
4. assessing students' skills in assisting patients with transfers from the wheelchair to the examination table.^{19,23}

USC's program involves SPs with either an intellectual or a physical disability. The SPs with intellectual disabilities have mild to moderate intellectual impairment and are verbal. These SPs perform a hypertension scenario with a standardized family member/caregiver who has also received training to enact the scenario. Both the SP with the disability and the standardized caregiver present the case; for example, the SP with the intellectual disability may state, “My mother died” while giving his or her family medical history, and the SP caregiver may supplement this information, saying, “Yes, she died of heart disease.” The SPs with physical disabilities all have spinal cord injuries, use manual wheelchairs, and are verbal. They perform a fatigue/diabetes scenario alone. The original scenarios were slightly modified to include disability-specific items. Each fatigue/diabetes scenario includes a physical examination necessitating transfer to the examination table.^{19,23}

After each interview, SPs complete a checklist for grading and feedback purposes. The SPs with physical disabilities fill out the checklist themselves. SPs with intellectual disabilities provide input to the SP caregiver who is responsible for filling out the checklist.^{19,23}

Tulane University School of Medicine—New Orleans, Louisiana

Saketkoo and colleagues¹⁸ report the use of an SP case to evaluate a three-hour disability awareness workshop that occurred during a fourth-year interdisciplinary clerkship at Tulane University School of Medicine (Tulane). At Tulane, two SPs without disabilities portrayed patient/caregiver dyads. The patient SPs, trained by a board-certified physiatrist to portray physical disability, presented with hemiplegia due to stroke. Faculty assessed students for their ability to perform traditional competencies and disability-related competencies (e.g., a physical exam focused on systems specific to disability-related complications and etiquette specific to interacting with a person with a disability).¹⁸

Medical College of Wisconsin—Milwaukee, Wisconsin

Sabharwal²⁰ reports that the Medical College of Wisconsin (MCW) involves

SPs in assessing medical students' competence in positioning patients with disabilities. The objective is to increase students' competence in each of the steps involved in turning a patient with dense right hemiplegia from the supine to the left-side-lying position for examination, and then back to the supine position. Students receive training in these steps prior to the SP assessment. Physical therapists without disabilities who are knowledgeable about the movement deficits of persons with paralysis and how these limitations impact positioning act as the SPs.²⁰

Goals

Common goals of many of the medical schools include (1) teaching students how to communicate appropriately and effectively with persons with disabilities, (2) providing students with an opportunity to interact, and thereby learn to feel at ease with, individuals with disabilities, and (3) debunking common notions that persons with disabilities are unable to speak for themselves and do not have a good quality of life including meaningful work and relationships. Some of the programs have also incorporated the teaching of physical examination skills, including assisting with transferring the patient onto an examination table, as a goal.

Most of the medical schools used common clinical diagnoses, which individuals with or without disabilities could experience, in an effort to illustrate the point that individuals with disabilities are susceptible to the same types of medical conditions as others, but that these diagnoses, when combined with an underlying disability may have additional ramifications with regard to etiology, treatment, and impact on daily living. In four programs, the primary goal of the SP curriculum was educational rather than evaluative in nature. Each of the three schools whose SP programs were evaluative used checklists to assess student performance. At Tulane and USC, SPs completed these checklists,^{18,19} whereas at MCW examiners completed the checklist.²⁰ We were unable to ascertain whether the results of the evaluation were ultimately used to grade students at Tulane or MCW; at USC, the results are incorporated into the students' clinical rotation grades.

Evaluative Data

The UMMS program administered a postsimulation questionnaire in which students described their previous experience with persons with disabilities, their knowledge of the ADA, their view of the effectiveness of the SP exercise in learning about the special needs of persons with disabilities, and their own self-assessed strengths and weaknesses in interviewing members of this population. Most students noted having minimal or no experience with persons with disabilities and minimal or no knowledge of the ADA. A majority stated that they felt the SP exercise was useful in helping them learn about the needs of persons with disabilities and in helping them improve their skills for interviewing members of this population.¹

To evaluate the impact of the SP exercise, the Matheny SP program compared matched pre- and postintervention scores for 30 students on nine semantic differential scales intended to measure students' comfort, self-perceived skill level, and rational versus intuitive styles of data gathering. The researchers observed significant differences on all nine scales, and the direction of the change moved toward greater comfort and skill and more rational approaches to the patient.²²

At Tufts, students fill out evaluations of their entire didactic day and rate the usefulness of the SP exercise. They consistently rate the exercise highly. Other efforts to evaluate the SP exercise have been intermittent and largely qualitative in nature; these have revealed students' learning processes in approaching patients with disabilities and in formulating an effective treatment plan.^{24,25} An interesting finding from these studies was the students' reluctance to ask questions about SPs' disabilities as part of the interview. Eddey, Robey, and McConnell²² noted a similar finding regarding the Matheny program. One quantitative pilot study examined students' beliefs about the types of physicians who should have primary responsibility for persons with disabilities, students' willingness to perform certain actions, their level of comfort in interacting with persons with disabilities, and their interest in additional information about caring for persons with disabilities. The study used unmatched pre/post data, and the results showed significant positive

change on some measures (e.g., an increase in those who believed that primary care physicians should be responsible for primary care for this population) but not on others (e.g., students seemed less willing to inquire about sexual issues, perhaps reflecting the fact that these are only a tangential issue in the shoulder pain case).²⁴

At USC, evaluation efforts center around the entire disability curriculum, of which the SP exercise is only one part. A pre/post test is administered using an instrument adapted from the survey "Canadian Attitudes Towards Disability Issues."^{19,23} The USC survey includes questions regarding students' understanding of the concrete thinking of patients with intellectual disabilities, whether they feel sorry for or awkward with the patients, and their familiarity with how to transfer patients with spinal cord injury. It also includes questions about students' understanding of the ADA. The survey is administered before and after the family medicine rotation. Thus far, change in students' feelings of sorrow for or awkwardness with patients with disabilities has been significant and positive, and their knowledge of the characteristics and higher-risk conditions of patients with intellectual disabilities has improved—as has their use of appropriate person-first language (which is naming the person before the disability; i.e., "person with a disability" rather than "disabled person").^{19,23}

At Tulane, researchers used a seven-item pre/posttest questionnaire to measure the impact of the SP exercise. This questionnaire contained items regarding students' knowledge of certain disability-related issues such as the ADA and resources for persons with disabilities. Students' overall scores on the seven items increased significantly after the SP exercise.¹⁸

Benefits for SPs as Well as for Students

In addition to helping *students*, involving people with disabilities in SP programs also benefits the SPs themselves. These individuals report reaping substantial benefits from their work. As do other SPs, they describe feeling considerable gratification from effecting positive change in the students. Many SPs with disabilities have had difficult experiences with medical professionals, and they

welcome the opportunity to contribute to the development of more sensitive and well-prepared physicians. Another benefit that SPs with disabilities have reported is the opportunity to make up for or repair their own negative health care experiences. SPs also find the appreciation expressed by students, faculty, and other team members satisfying—just as they do the opportunity to collaborate with dedicated and talented people in improving medical care.²⁶ Last, but not least, most programs pay SPs, which conveys to them the value of their work and enhances their economic well being.²⁶

Benefits and Challenges for Faculty in Using SPs With Disabilities

Working with SPs with actual disabilities has the benefit of authenticity and, for students, lends a high degree of credibility to the exercise. Recruiting individuals with the skills to perform the SP role can prove challenging in that SP work is intermittent and part-time, and some individuals who might be good candidates may already have, or may be seeking, steadier employment. In addition, some of the challenges that individuals with disabilities confront in their daily lives—ranging from fluctuating health status to transportation difficulties—can also pose some operational challenges. All of the programs described in this article have managed to address these issues effectively over time, but doing so has required flexibility and foresight (see below).

Another issue that arises is the question of whether to permit an SP to incorporate aspects of his or her own medical history into the case. At UMMS and Tufts, this practice has been accepted as actually enriching the cases and providing additional learning opportunities for students. These two programs' primary purposes are educational rather than evaluative in nature. Permitting such modifications would be more complex or problematic for a program whose purpose is primarily evaluative in nature. In fact, at USC, where the SP exercise is primarily evaluative, such individual details have been removed from the cases over time.

Benefits and Challenges for Faculty in Using SPs Without Disabilities to Portray Patients With Disabilities

Involving SPs without disabilities minimizes some of the operational challenges that arise when including SPs with disabilities. Recruitment may be simpler because a standing pool of SPs from which to draw may already exist, and SPs without disabilities may pose fewer issues related to unpredictable health status and transportation. Of the two programs that used SPs without disabilities, only one explained the rationale for doing so, which seemed to be consistent with just such practical considerations. This program's directors also seemed to have concerns about reliability (i.e., consistency) between performances.

The trade-off is that the performance of an SP without a disability is not only less authentic (even though, as noted previously, students highly value authenticity) but also may lack nuances that only a patient with a disability can incorporate. In addition, *not* interacting with someone whose physical characteristics are clearly recognizable as caused by disability may diminish the value of the learning experience, either by depriving the student of the opportunity to learn from his or her own reactions to these traits or, in cases where a physical examination is performed, by affecting the student's performance of the related tasks (e.g., the experience of lifting someone whose legs are atrophied cannot be entirely duplicated by someone whose legs are not atrophied). Also, SPs without disabilities could possibly harbor commonly held perspectives or misconceptions regarding persons with disabilities, which could adversely affect their performance.²⁷ In several ways, then, involving SPs without disabilities has the potential to negatively affect the authenticity of the exercise and undermine its effectiveness.

Resources, Programmatic Realities, and the Logistics Necessary to Implement a Disability-Related SP Program

Costs and human resources

Implementing an SP curriculum that involves SPs with disabilities initially requires a significant up-front

commitment of time and resources. In three of the programs, federal or state support was initially used to cover start-up costs. Once the case has been written and the SPs have been trained and gained some experience, implementing an SP program becomes a relatively inexpensive enterprise—assuming that clinical exam rooms are available at no additional expense (choosing wheelchair-accessible facilities, including exam rooms and restrooms, is an important consideration). The primary faculty time commitment then becomes teaching on the day the curriculum is implemented, and the primary administrative time commitment is coordinating SP and faculty schedules, rooms, and other logistics. The amount of faculty time varies according to the faculty member's role in the SP exercise. At some schools, such as Tufts, faculty observe all SP interactions, whereas at others, such as USC, SPs interact with students without a faculty observer.

Recruitment, selection, and training

The various programs have used different approaches to recruit individuals with disabilities. At Matheny, SPs have been recruited largely from the inpatient population. Other programs have recruited from the community in various ways, including asking physicians to recommend individual patients, recruiting via word of mouth in the disability community, and announcing the program through public and nonprofit agencies.

Interviewing and selecting candidates is a critical aspect of creating an effective program involving SPs generally, and this is certainly no less true of programs involving SPs with disabilities.¹⁷ In addition to questions about background and professional experience, questions regarding the individual's experience and interest in teaching others about disability and questions regarding their experiences—both positive and negative—with medical providers are key to identifying the most suitable candidates.

The best candidates are individuals who have empathy for medical students as inexperienced learners and who are motivated by a desire to help students increase their understanding of the needs of, and build their skills for working with, individuals with disabilities.¹⁶ In

addition, while drawing on their own knowledge and experience to inform their teaching, SPs must be able to separate themselves from their own stories enough to fully assume the characteristics of the case they are portraying.¹⁷ Lastly, SPs must have the stamina to portray the case multiple times in a given day, and this capacity will vary substantially between individuals.¹⁷ Notably, however, programs can accommodate SPs with varying levels of stamina by adjusting the number of student sessions SPs do in a given day. For example, Tufts schedules four student sessions, each lasting approximately 30 minutes, for a total of two hours, and this schedule has worked well for the program over time.¹⁶

Each of the programs includes an extensive training program for SPs, and some programs also provide occasional refresher sessions to reinforce SPs' skills. At USC, separate training programs are organized for individuals within each disability category (spinal cord injury, intellectual disability, and nondisabled) because of differences in the content and presentation of their cases.

The Promise of Using SPs to Teach About Disability

The renewed emphasis on clinical skills in medical education comes at a time when there is also increasing focus on the need to provide better care for populations that experience health disparities.^{2,3,10} SPs provide a unique opportunity to meet both the general goals of medical education in developing students' clinical skills and goals specific to enhancing and evaluating students' knowledge, attitudes, and skills with regard to patients with disabilities. Once the initial investment has been made, implementation becomes relatively routine, and students generally respond well to these curricula. The population of persons with disabilities is one with a thinner margin of health than many others, and therefore training students to provide quality medical care to this oft-overlooked population is vital.²⁸ Medical schools seeking to incorporate disability content into their curricula should seriously consider using SP programs. The rewards for everyone involved are substantial.

Dedication: The authors would like to dedicate this article to the memory of the late Paul Kahn, author, disability activist, and educator whose

intellectual contributions and thoughtful, genuine portrayals as a standardized patient captured the imagination of medical students and left them wanting to know more.

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