



Is the Use of Problem-Based Learning Cases and Standardized Patients Effective in Teaching Pre-Clerkship Medical Students About Developmental Disabilities?



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Background

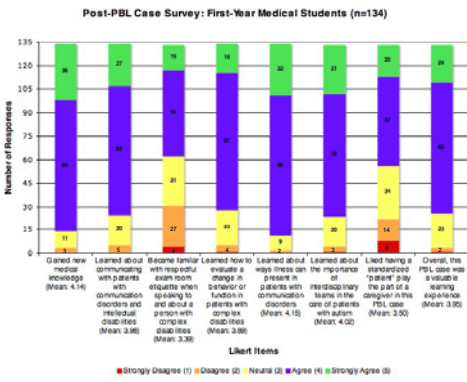
- Patients with developmental disabilities (DD) experience significant health disparities, and a contributing factor is medical professionals' lack of formal training in caring for this population.¹
- Patients with DD also report "lack of dignity during examinations," poor medical explanations, and feeling "rushed and overlooked" in clinical settings.²
- In clinical encounters involving adults with disabilities, failures in communication have hindered the medical interview, undermined patient understanding of treatment options and risks, and diminished patient satisfaction.³
- Patients with physical disabilities have served as standardized patients (SP's) and instructors to medical students in objective structured clinical exam (OSCE) cases, and students reported that these cases taught them about the needs of this population.⁴
- Currently, there are only seven programs in the United States that use SP's, both with and without disabilities, to train medical students to effectively care for patients with disabilities.¹
- There were few training opportunities for pre-clerkship medical students with this patient population at the University of California, San Francisco (UCSF) School of Medicine.

Purpose

- Although communication skills need to be practiced, we struggled with the challenges inherent in providing 134 students with supervised practice interacting with a patient with limited communication skills and challenging behavior. We did not feel that the team of SP's could believably and consistently portray a person with autism.
- We wanted to challenge the students to gather information from other sources (e.g. caregivers, medical records) when the patient is unable to provide a complete medical history, as can be the case when caring for patients with communication disorders.
- We created a problem-based learning (PBL) case in which students interacted with an SP portraying the caregiver of a patient with autism in order to:
 - Increase medical knowledge about developmental disabilities (DD),
 - Demonstrate effective interpersonal and communication skills,
 - Highlight key issues in patient care,
 - Promote clinical reasoning, and
 - Identify principles in systems-based practice for this population.

Methods

- In May 2011, a PBL case depicting a 24 year-old man with autism (Jason Moore) was implemented for first-year medical students at the UCSF School of Medicine. The patient was brought in by his group home caregiver for evaluation of behavioral changes and weight loss.
- We piloted several strategies to demonstrate appropriate communication skills:
 - Modeling direct communication with the patient in the script,
 - Including the patient in the interview by having the SP reference an imaginary patient during the encounter, and
 - Discussing methods for getting more information directly from the patient through functional behavior analysis.
- Over two PBL sessions, students:
 - Interviewed a standardized patient (SP) portraying the caregiver,
 - Compiled a medical history from the caregiver and the patient's medical records,
 - Analyzed the physical exam and laboratory results, and
 - Experienced a simulated interdisciplinary team meeting.
- Students and faculty completed Likert style and short-response evaluations to assess the sessions' effectiveness and quality.



Results

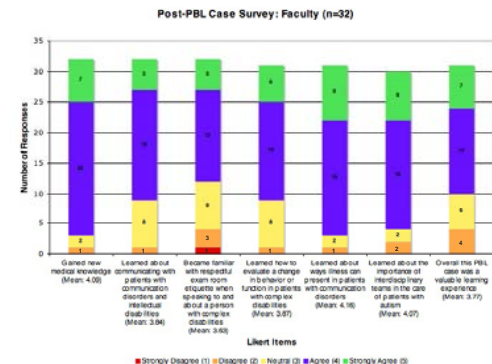
- In May 2011, 134 first-year medical students and 32 faculty facilitators participated in the PBL case and completed the post-session evaluation.
- The Likert items were graded as follows: strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, and strongly agree = 5. The average Likert scale value was obtained for each item.

Representative Student Comments:

- "[This PBL case] was an interesting setup not easily replicated / experienced in most clinics."
- "The best part of the PBL case was learning about resources available to patients with cognitive disabilities."
- "The shift from receiving a history from the caregiver [versus] the patient was interesting to see and valuable."
- "I have fairly extensive experience working with children with autism and [the] complexity and scenarios were well done and fairly accurate. I also appreciated the caregiver interview being fairly low-yield because that's often the case."
- "Given that objectives for this case seemed focused on learning to interact with a disabled patient, I was disappointed that there was only an 'imaginary' patient present... I think this reinforces the mistake that caregivers too often instead complete focus of the interview instead of [the patient]."

Representative Faculty Comments:

- "Overall, this is a good case that introduces the challenges of making a diagnosis in a person with DD, identifying functional, social and community issues in their care, and learning how to elicit information."
- "Need to be creative to figure out how to give students a more direct experience of communicating with autistic patients."
- "The format of interviewing the caregiver was a poor substitute for truly conveying the interaction with a patient with intellectual disabilities."
- "[This case was] a really good idea—it stretches the envelope of skills / experiences students have with interviewing in a creative and challenging way early on."



Discussion and Conclusions

- Providing formal training to promote clinical and professional skills in caring for patients with developmental and complex disabilities during the pre-clerkship years in medical school may increase future physicians' confidence, comfort, and competency in healthcare delivery for this population.
- Our piloted PBL case was successful in garnering interest about patients with DD. First-year medical students and faculty members at the UCSF School of Medicine welcomed the exposure to this patient population through the case.
- The evaluation revealed that while the case was effective at modeling many aspects of team-based care, the lack of an opportunity for students to have direct patient interaction was a weakness of the teaching activity.
- We will include video footage in order to illustrate patient behavior in a natural setting while maintaining standardized small group encounters.
- Students will continue to interview the SP caregiver since learning to engage caregivers is crucial in caring for patients with communication disorders.
- We will also incorporate a follow up interactive large group session where patients and caregivers will be invited to share their experiences.
- This revised PBL case will be implemented in May 2012, and we will administer a post-PBL case evaluation to assess the effectiveness of this new case.

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