

Can casual use of medical evidence cause harm and erode bioethical values?

›CASE

Ms. M. is a 19-year-old African-American female, presenting to the emergency department (ED) with bilateral leg and back pain that has been present for 3 months but has worsened over the past week. She is not able to sleep and has recently had recurrence of suicidal ideation. Ms. M. is withdrawn with a flat affect, and she has the hood of her sweatshirt pulled over her eyes. She is wearing headphones and is singing along to the music. Ms. M. states that attempts to manage her pain at home with ibuprofen and alcohol have been unsuccessful. She smells of alcohol and of urine, and her wet clothes appear to indicate she has been incontinent of urine. She describes her pain as a 9 on a 10-point scale.

The PA providing the triage evaluation sends Ms. M. to the waiting room, where she sits for several hours before being seen by another PA, who elicits a medical history of depression, suicidal ideation, and psychiatric care. Ms. M. also requests a prescription for Vicodin. Unemployed, she lives with her female partner and their two children, who are also present. Ms. M.'s partner is upset about what she perceives to be a delay in care. On examination, Ms. M. has a BP of 136/95 mm Hg. The PA also notes that none of the patient's other vital signs are elevated, demonstrating an absence

of uncontrolled pain, and therefore recommends ibuprofen or acetaminophen.

The PA then presents his findings to his supervising physician. To support his view that the patient is drunk and seeking drugs, he cites the odor of ethyl alcohol, the incontinence, and the flat affect—all of which the PA feels are inconsistent with uncontrolled pain. The supervising physician notes that there has been no neurologic examination and shares her concern that the history and symptoms may be consistent with cauda equina syndrome. Subsequent examination and testing affirm this diagnosis, indicating a lumbar plexus tumor compression.

›THE ETHICAL QUANDARY

This case raises several key questions. Can PAs be made aware of stereotypes and unconscious biases that may impair clinical decision-making? Will the use of evidence-based medicine and guidelines fully eliminate these factors? What constitutes reliable evidence? Do evidence-based medicine checklists provide for the contextual issues unique to each patient? Can PAs integrate evidence while ignoring contextual issues and still practice within ethical guidelines? Does selective utilization of medical evidence violate ethical principles and harm patients? Is there an ethical responsibility to address the evidence that clinicians are not value-neutral? Finally, can disparities in care be reduced more quickly by looking outside the examination room? Although we will not resolve all of these conundrums in this column, we propose that resolution will be facilitated by consideration.

›DISCUSSION

Medical indications (beneficence and nonmaleficence) Ms. M. had a severe spine injury and presented promptly to

a nearby ED. Cauda equina syndrome is a neurologic condition that requires prompt decompression of the spinal cord. It can be caused by trauma or a tumor and is often characterized by saddle anesthesia, severe bilateral leg pain, and incontinence.¹

Patient preference (autonomy) Ms. M. and her partner felt that the denial of pain medication was unreasonable, noting that the patient had not consumed alcohol for 12 hours. Ms. M.'s futility in advocating for prompt care and appropriate pain treatment appeared to have been made more difficult by the PA's belief that people in uncontrolled pain will present with consistent and predictable signs and symptoms. Pain expression is known to be influenced by cultural factors, and variations in expression are not reliable predictors of pain.^{2,3}

Quality of life (beneficence, nonmaleficence, autonomy) The patient's function had clearly declined in the past week, noted by increased pain and other symptoms. The inability to control this pain with her current regimen has had a significant negative impact on Ms. M. and her family's quality of life.

Contextual features (justice) This case raises several issues related to contextual features and the bioethical principle of justice.

Does the rubber meet the road in or out of the examination room? Pincus has noted that the most effective tools for rapidly decreasing racially influenced disparities may in fact take place outside the examination room.⁴

Physician assistants and other medical practitioners may get lost in the myriad of evidence and guidelines presented to them on an almost daily basis. PAs may have a tendency to see the specific treatment guidelines as "real" evidence, possibly setting aside related social deter-

Jim Anderson practices in the Department of Neurological Surgery, Harborview Medical Center, Seattle, Washington, and is a member of the JAAPA editorial board. **Diane Bruffow** is in private practice in Middle Village, New York; on the staff of *The New York Times*; and is a member of the JAAPA editorial board. **F.J. Gianola** is a faculty member in the Division of Physician Assistant Studies, MEDEX Northwest, and in the Department of Bioethics and Humanities, University of Washington School of Medicine, Seattle. The authors have indicated no relationships to disclose relating to the content of this article.

minants of health. Battling for control of methodology that defines “reliable” also confounds the approach to evidence.

Ethical principles suggest that PAs engage patients beyond the walls of the examination room. Choosing to set aside evidence from factors on the societal scale may place providers at clear odds with professional and ethical principles of justice, beneficence, and nonmaleficence.

Integrating evidence about unconscious bias Data continue to mount showing that the impact of provider unconscious bias and stereotyping of patients negatively impacts patient care. Nonwhite patients consistently receive unequal levels of care compared with white counterparts, even when issues to which health disparities are commonly attributed (access, comorbidities, insurance status, patient preferences) are accounted for.²

“The concept of ‘Citizen PA’ explores activism, whereby shaping societal forces may have more impact than diagnostic acumen.”

In this case, the patient’s pain went untreated because of clinician assumptions about the validity of her pain complaints. Todd’s studies on the pain medication provided to patients in ED settings show that nonwhite patients are given less pain medication at discharge.⁵

The Healthy People 2010 companion document for lesbian, gay, bisexual, and transgender (LGBT) health cites a broad array of bias toward LGBT patients by providers, consistent with a lack of appropriate training on caring for these populations.⁶ These known barriers complicate the care of LGBT patients.

The ethical conundrum presented by this case relates to improving case-based care for patients using awareness of clinician bias and stereotyping. Much of the research informing PA understanding of unconscious clinician bias comes from investigating the mechanics of human cognition, or how we

think. These efforts consistently point to one startling conclusion: increasing provider awareness of clinician bias has the potential to decrease its frequency and impact.^{7,9} One awareness tool, called *perspective taking*, promotes provider empathy and has been shown to decrease the impact of bias.⁹

Are you sure about that? Burgess has found that lack of certainty increases dependence on cognitive shortcuts in the form of unconscious biases and stereotypes.¹⁰ The complexity of this case increases the need for the provider to fill in the gaps with information generated from the implicit bias and unconscious stereotyping, a tendency found to occur more frequently in complex cases.¹¹

This case highlights two salient complexities related to the role of evidence in PA practice. What obligation do PAs have to integrate evidence related to social determinants of ill health into their

practice? Is it ethical for PAs to focus on treatment guidelines and set aside evidence pointing to structural causes of poor health? Furthermore, how does the PA determine if evidence offered to guide PA practice is accurate and applicable to increasingly diverse populations?

We have previously described the concept of the PA’s responsibility to participate in the shaping of the societal context in which patients receive health care. The concept of “Citizen PA” explores PA activism, whereby participation in shaping societal forces may have more impact on patient health than diagnostic and procedural acumen.^{12,13}

An additional area for consideration is how accuracy of evidence can be brought into question when guidelines are created by those in a position to profit from guideline adherence. For example, what is the proper diagnostic interpretation of the patients’ BP reading

of 136/95 mm Hg? Using the *Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)* guidelines, any systolic reading above 120 mm Hg is considered prehypertensive. This new category came with the JNC 7 guidelines of 2003. Nine of the 11 members of the JNC 7 panel had direct financial ties to pharmaceutical companies that could potentially profit from the prescribing driven by the new guidelines.¹⁴ This connection between research and profit potentially impacts the integrity of evidence and warrants further exploration. **JAAPA**

F.J. Gianola, PA, DFAAPA; Jim Anderson, PA-C, ATC, department editors

REFERENCES

1. Fraser S, Roberts L, Murphy E. Cauda equina syndrome: a literature review of its definition and clinical presentation. *Arch Phys Med Rehabil.* 2009;90(11):1964-1968.
2. Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington, DC: National Academies Press; 2003.
3. Arbour C, Gélinas C. Are vital signs valid indicators for the assessment of pain in postoperative cardiac surgery ICU adults? *Intensive Crit Care Nurs.* 2009. doi:10.1016/j.iccn.2009.11.003.
4. Pincus T. Will racial and ethnic disparities in health be resolved primarily outside of standard medical care? *Ann Intern Med.* 2004;141(3):224-225.
5. Todd KH. Influence of ethnicity on emergency department pain management. *Emerg Med (Fremantle).* 2001;13(3):274-278.
6. Gay and Lesbian Medical Association; LGBT health experts. *Healthy People 2010 Companion Document for Lesbian, Gay, Bisexual, and Transgender (LGBT) Health.* San Francisco, CA: Gay and Lesbian Medical Association; 2001. <http://www.lgbthealth.net/downloads/hp2010doc.pdf>. Accessed March 3, 2010.
7. Rudman LA, Ashmore RD, Gary ML. “Unlearning” automatic biases: the malleability of implicit prejudice and stereotypes. *J Pers Soc Psychol.* 2001;81(5):856-868.
8. Burgess DJ, van Ryn M, Crowley-Matoka M, Malat J. Understanding the provider contribution to race/ethnicity disparities in pain treatment: insights from dual process models of stereotyping. *Pain Med.* 2006;7(2):119-134.
9. Galinsky AD, Moskowitz GB. Perspective-taking: decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *J Pers Soc Psychol.* 2000;78(4):708-724.
10. Burgess DJ. Are providers more likely to contribute to healthcare disparities under high levels of cognitive load? How features of the healthcare setting may lead to biases in medical decision making. *Med Decis Making.* 2009. doi:10.1177/0272989X09341751.
11. Green AR, Carney DR, Pallin DJ, et al. Implicit bias among physicians and its prediction of thrombolysis decisions for black and white patients. *J Gen Intern Med.* 2007;22(9):1231-1238.
12. Anderson JE, Abraham M, Bruessow DM, et al. Cross-cultural perspectives on intimate partner violence. *JAAPA.* 2008;21(4):36, 38, 40 passim.
13. Anderson J. Health care disparities. *Advance for Physician Assistants.* 2005. <http://physician-assistant.advanceweb.com/editorial/content/editorial.aspx?cc=66385&rpId=37>. Accessed March 3, 2010.
14. Kelleher S, Wilson D. Suddenly sick. *The Seattle Times.* June 26-June 30, 2005. <http://seattletimes.nsource.com/news/health/suddenlysick/sickconflicts26.html>. Accessed March 3, 2010.