Brief Quality Improvement Report

Improving Emergency Providers' Attitudes Toward Sickle Cell Patients in Pain

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Abstract

Background. Provider biases and negative attitudes are recognized barriers to optimal pain management in sickle cell disease, particularly in the emergency department (ED).

Measures. This prospective cohort measures preintervention and postintervention providers' attitudes toward patients with sickle pain crises using a validated survey instrument.

Intervention. ED providers viewed an eight-minute online video that illustrated challenges in sickle cell pain management, perspectives of patients and providers, as well as misconceptions and stereotypes of which to be wary.

Outcomes. Ninety-six ED providers were enrolled. Negative attitude scoring decreased, with a mean difference −11.5 from baseline, and positive attitudes improved, with a mean difference +10. Endorsement of red-flag behaviors similarly decreased (mean difference −12.8). Results were statistically significant and sustained on repeat testing three months after intervention.

Conclusions/Lessons Learned. Brief video-based educational interventions can improve emergency providers' attitudes toward patients with sickle pain crises, potentially curtailing pain crises early, improving health outcomes and patient satisfaction scores. J Pain Symptom Manage 2016;51:628–632 © 2016 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

Key Words

Sickle cell, pain crises, providers' attitudes, video intervention

Background

Sickle cell disease (SCD) is an inherited blood disorder that affects millions worldwide, including an estimated 100,000 Americans. In the U.S., SCD results in over 200,000 emergency department (ED) visits annually, with pain as the most common complaint.[1] In addition to being excruciating, incapacitating, and sometimes refractory to even the most advanced analgesic regimens, there are numerous challenges to providing optimal pain management to SCD patients, especially in the acute care setting. Undermedication has been identified as a common problem encountered by many patients seeking care for pain in EDs.[2] The quality of care provided in the ED also can be negatively affected by a number of factors, including pressures that result from high patient turnover, long wait times, and lack of continuity of care.

The complexity of pain mechanisms and severity of SCD create additional provider bias. Behaviors exhibited by patients with SCD seeking care for severe pain in ED settings often do not match behavioral cues (e.g., moaning or crying). This apparent lack of concordance between observed and presumed patient behavioral cues can lead to provider skepticism about the veracity of the SCD patient's report of pain.

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Furthermore, as SCD patients often require opioids for disabling chronic pain, many develop opioid tolerance. Requirement of higher doses and requests for particular treatment regimens that are most effective for them can lead health professionals to perceive this as "drug-seeking behavior." These suspicions are potentially exacerbated by the fact that the disease primarily affects young African Americans, a group that is already perceived by clinicians to have higher rates of substance abuse.[3] Clinician characteristics also may affect attitudes. Compared to hematologists, surveys found ED providers to have more negative attitudes toward SCD patients.[4] Besides, the study shows that ED providers with the highest levels of negative attitudes toward SCD patients were less amenable to adhering to recommended pain management strategies.[5] Not surprisingly, several studies have shown that the majority of SCD patients rated their ED experience as "very poor," demonstrating a need for improvement in the care of SCD patients in the ED.[6] These knowledge gaps, prejudices, negative attitudes, and the suboptimal pain management perpetuate a cycle of SCD patient-provider mistrust and dissatisfaction.

Prior approaches directed toward improving the management of acute SCD pain include provider education, establishment of algorithmic pain management protocols, and the creation of dedicated day hospitals for patients with SCD.[7,8] These may not be viable options for many community hospitals because of a lack of resources, structure, or personnel required.

Haywood et al.[9] demonstrated improved attitudes among internists and nurses after a short video-based intervention about SCD patients. However, there have been no studies to date that focused on similar interventions in the ED, where patients with sickle cell pain crises most often present.

Measures

Our study was conducted at a large, urban, inner city academic ED and used a single-group pretest/multiple-posttest design. Eligible participants were health care providers including attending physicians, residents, midlevels (nurse practitioners and physician assistants), and nurses clinically practicing at the institution's adult ED as of December 2013. The Johns Hopkins Hospital institutional review board approved the study.

Using the previously validated General Perceptions about Sickle Cell Patients Scale[5,9] (Appendix, available at jpsmjournal.com), the primary outcomes measured were providers' attitudes toward SCD patients. Subscale measures included 1) the six-item negative attitudes subscale (in which higher scores indicate more negative views about SCD patients), 2) the four-item positive attitudes subscale (in which higher scores indicate more positive feelings of affiliation toward SCD patients), and 3) the five-item red-flag behaviors subscale (in which higher scores indicate greater endorsement of the belief that certain SCD patient behaviors raise the clinician's concern about patient drug seeking, e.g., requesting specific narcotics, changing behavior when provider walk in).[5] We also collected information on potentially confounding provider characteristics, including age, sex, type of provider (nurse, attending physician assistant, or resident) and years of clinical experience.

Simple and multivariable generalized estimating equation analyses were used to identify impact (immediate or long term) of our intervention on attitudes compared to baseline. Both unadjusted and adjusted attitudes for potentially confounding ED provider characteristics were reviewed. One-way ANOVAs and t-tests were used for bivariate analyses, and generalized estimating equation models in multivariable analyses accounting for any potentially confounding provider characteristic effects. Two-sided *P*-values at a level of <0.05 were used to assess statistical significance. All statistical analyses were conducted using Stata 13.0® (StataCorp LP, College Station, TX).

Intervention

We created an eight-minute video featuring adult SCD patients and ED providers in conjunction with the Johns Hopkins Hospital Digital Media Group, which discusses, from both the ED provider's and patient's perspective, challenges in ED care for patients with SCD pain. Misinformation, stereotypes, and biases often held by ED providers toward the SCD population were critically examined and reviewed by the patients and providers. Accurate data about the actual experiences and characteristics of SCD patients were provided. All themes, challenges, and data discussed in the film were critically evaluated for their veracity by the SCD research panel (coauthors), comprising ED providers, a hematologist specializing in SCD, patient representatives from the adult SCD community, and bioethicists who study the SCD population.

Every provider in the institution's adult ED was invited to complete the baseline survey during a departmental meeting. An Internet link to the anonymous baseline survey on Survey Monkey was sent out via e-mail to all ED providers—attending physicians, residents, midlevels, and nurses. Participants were enrolled in the study and assigned a study ID on completion of the initial survey. Names were not collected to maintain anonymity, and only e-mail addresses were used to link the three surveys, which