Health professionals' pain management decisions are influenced by their role (nurse or physician) and by patient gender, age, and ethnicity

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Context

A growing body of evidence documents the existence of pain manage- ment and treatment disparities by sex, race and age. For instance, racial and ethnic minorities consistently receive less adequate treatment for acute and chronic pain than their white counterparts, even after control- ling for age, gender and pain intensity.[1] Healthcare professionals' contri- bution to these disparities is less well understood. This study by Wandner and colleagues builds on knowledge of pain management and treatment disparities by seeking to understand and compare nurses' and physicians' pain decision policies based on patient sociodemographic characteristics.

Methods

The purpose of this study was to assess whether healthcare providers' ratings of patient pain severity and likelihood to administer opioid analge- sics varied according to the race (black or white), age or sex of the virtual human patient, and clinical background (physician or nurse) of the provider. Providers were contacted by mail and asked to participate (n=193, response rate was not reported). Providers viewed 32 text vignettes of a patient experiencing pain, along with a brief video of a virtual human face showing signs of pain. Patient race, age and sex were manipulated by altering the facial features of the virtual human. Virtual patient factors were presented within subject; every participant rated patients with each combination of characteristics. After viewing the vignette, providers com- pleted 1 item measuring perceived pain intensity and 1 item measuring willingness to administer opioids on a 100-point scale.

Findings

Nurses rated pain intensity higher and were more likely to administer opioids, on average, than physicians. Overall, participants rated the pain intensity of black, male or older patients

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higher, and were more likely to administer opioids to black or male patients. There were several interac- tions between patient sociodemographic characteristics that significantly predicted ratings, as well as interactions between provider type and patient characteristics that revealed that the differences between ratings of men and women and older and younger patients were greater for nurses than physicians.

Commentary

This study focused on differences in recognition and treatment of pain between nurses and physicians. Since most research on pain perception and treatment focuses on physicians, the paper is an important addition to the literature. Also, the authors' use of virtual human technology enabled the standardisation of characteristics that are not experimentally manipulated, so there is little chance of confounding by attractiveness or other patient factors. The finding that nurses perceive worse pain and are more likely to administer opioids overall warrants further study to determine whether additional training for physicians or increased involvement of nurses in pain evaluation and treatment could prevent unnecessary under- treated pain —or if it might widen disparities, as was found in this study.

While this study contributes new knowledge about pain decision- making, it is a hypothesis-generating paper, and therefore must be repli- cated with a more robust study design before its findings are translated into recommendations for intervention. The within-subjects design draws into question the interpretation of findings regarding age, sex and race disparities in perceptions and decision-making. Since each participant evaluated all patients, it is possible that the hypotheses were evident to many participants, who then made ratings influenced by social desirability bias. Furthermore, the vignette design did not replicate the facets of the clinical environment (e.g. distraction or time pressure) that induce cognitive load and may moderate the impact of bias on decision-making.[2] Thus, providers were able to make judgments consistent with egalitarian goals. These factors may contribute to the inconsistency between findings from controlled experimental studies and evidence from clinical research.[134]

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Implications for practice and research

■ Healthcare providers from different fields may respond differently to patients with pain. On average, nurses rated pain intensity higher than physicians and were more likely to prescribe opioids.

■ Patient demographic characteristics may influence nurses' and physi- cians' perceptions of pain intensity and decisions to treat pain with opioidanalgesics.

■ This study must be replicated with a more robust study design before findings can be translated into recommendations for intervention.