Gender and Prescription Opioid Abuse

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Case Overview

Nonmedical use of prescription opioids is becoming an increasingly serious public health problem in the United States. Although opioids have been used to relieve pain in clinical settings since the early 19th century, prescription opioid use – and misuse – has increased dramatically since the start of the 21st century.[1,2] According to the 2012 National Survey on Drug Use and Health, about 2.9 million persons aged 12 or older used an illicit drug for the first time within the past year, 17% of whom initiated with nonmedical use of prescription painkillers.[1] Although doctors may prescribe opioids, incorrect use can lead to serious and even fatal health outcomes. Available epidemiologic data has suggested there may be significant differences between male and female prescription opioid users in terms of risk factors and motivations for use, as well as their co-morbidities. Recognizing and understanding the differences in the social, psychological, and medical complexities between men and women who misuse prescription opioids can better inform clinical decisions and pain treatment in order to minimize risk of misuse, addiction, and overdose.

Patient Profile

- Name: JS
- Age: 28
- Sex: Female

Medical History

- Depression
- Anxiety

Prescribed Medications

- Oxycontin 20 mg po BID
- Vicodin 5/300 mg po q 6h for breakthrough pain
- Zoloft 50 mg qd
- Xanax 1 mg po TID prn anxiety
- Orthotricyclin daily

Social History

- ½ pack cigarettes/day
- Occasional alcohol “on the weekends”

History of Presenting Illness

FS presented to the emergency department (ED) by ambulance after her roommate found her on the couch, unconscious and “barely breathing.”. At the scene, paramedics also noted

pinpoint pupils. An intravenous line was placed and 0.4 mg of naloxone was administered which improved her responsiveness and respiratory rate.

Initial Vital Signs (for EMS): HR 55, BP 96/54, RR 8, O2 sat 95% RA

After naloxone: HR 70, BP 110/66, RR 16, O2 sat 98% RA

On arrival, FS was lethargic but arousable and able sit up and answer questions. She reported taking extra oxycontin, which she had been prescribed and taking over the past two years for back pain as a result of a motor vehicle accident. She admits to receiving an increased dose recently in attempt to better control her pain.

Exam

Vitals in ED: HR 64, BP 105/58, RR 10, O2 sat 96% RA

Patient lethargic but awoke when spoken to. Pupils were pinpoint. There were no signs of trauma. Supple neck. Heart sounds were normal, without murmur or rub. Lungs were clear to auscultation. Abdomen was soft, nontender, with hypoactive bowel sounds. Extremities were well perfused, and there were no track marks.

Hospital Course

On further questioning, JS reported increased anxiety and depression since losing her waitressing job due to her back injury, with thoughts that taking extra oxycontin “might be a good way to never wake up.” She was screened for partner violence but denied feeling unsafe.

Diagnosis

Prescription opioid overdose, Suicidal ideation

Treatment

JS was observed in the ED for 4 hours and required a second dose of naloxone for apnea. Given the longacting preparation of opioids she had taken and prolonged somnolence, she was admitted to the medical service for additional observation. Overnight, she gradually regained normal mentation. On the floor, she was seen and evaluated by psychiatry, who determined that a psychiatric hospitalization was necessary. During her hospitalizations, JS’s medications were reviewed by her admitting team, and the opioids replaced with long-acting NSAIDs and lidocaine pain patches for pain control. The benzodiazepines were discontinued. The patient was able to contract for safety, and was discharged with a referral to a psychiatrist and an outpatient specialty pain clinic.

Discussion

Because opioids are legally manufactured and prescribed, they have become increasingly available in primary care and other healthcare settings. The wide availability of opioids has led to increased rates of non-medical use, some due to opioid access through family members or

friends who have legitimate prescriptions.[2] Misguided beliefs of patients – and sometimes their physicians –about the safety and effectiveness of opioids as well as the continued stigma surrounding drug addiction may deter many users from admitting or recognizing their dependence and subsequently cause a delay in seeking treatment. However, considering how a patient's gender may impact the use or abuse of opioids can assist clinicians in guiding individual therapy.

Available epidemiologic data suggests that patterns of non-medical use of prescription opioids and characteristics of abusers vary by gender. Women are more likely than men to be prescribed medications with abuse potential and to report prescription opioids as their primary substance of abuse.[4] Although women are 1.6 times more likely than men to report prescription opioid use, men have higher rates of reported lifetime and past-year prescription opioid non-medical use.[3] One study found gender differences when respondents were stratified into four classes: prescribed users, prescribed misusers, medically healthy abusers, and illicit users, with women making up the largest percentage in the "prescribed misusers" category and the lowest percentage in the "illicit users" category.[4]

Women may be prescribed opioids more often because they suffer disproportionately from poorly-defined painful medical conditions such as fibromyalgia, pre-menstrual syndrome, IBS, and restless leg syndrome.[5] Other studies have shown that women have higher incidence of pain and report higher pain intensity compared with men, causing doctors to prescribe opioids more often for women than men.[8] Frequent visits to the ED were significantly associated with past-year nonmedical use of prescription opioid for women,[6] while rates of overdose and death have been observed significantly higher among men.[7] This could also be due in part to the fact that male users have been found to practice alternative routes of administration (such as snorting or injecting) more frequently than female users.[7,8,9] On the other hand, rates of increase in opioid-related fatalities have been more dramatic among women than men (415% vs. 265% between 1999 and 2010), suggesting that women face particular risks for overdose; whether due to patterns of prescribing, mode of ingestion, drugdrug combinations, differences in metabolism, and/or other factors is still unknown.[10]

Many gender differences in co-morbidities have been observed among prescription opioid users. Women are more likely than men to have concurrent psychological distress, histories of sexual or physical abuse or prior histories of psychological problems.[11] Cigarette use has been correlated with non-medical use of prescription opioids in women, potentially because both substances are used by women to manage negative affective states.[2] Women frequently use prescription opioids to help cope with interpersonal stress, anxiety, and conflict with friends or family. Compared to the male respondents, women are more motivated by negative reinforcement processes and nonpharmacologic reasons for opioid use.[9] Multiple studies have also indicated that women are more likely to hoard unused prescription pain medications and to co-use medications such as sedatives to enhance the effectiveness of the pain medication.[7,9]

Although women who use prescription opioids for non-medical purposes are more likely to have accompanying mood disorders or mental illness, male abusers may be more likely to have

associated legal and behavioral problems.[8] Findings from the Addiction Severity Index-Multimedia Connect Prescription Opioid Database indicated that opioid-using men were more likely to have histories of incarceration than their female counterparts, and more likely to use alcohol.[5] Several studies found women were more likely to be unemployed, unmarried, and have other family and social problems.[5,8]

Recognizing potential gender differences among non-medical users of prescription opioids can inform clinical practice for healthcare professionals. First, females who present with chronic pain symptoms requesting opioid medications should be screened for mental health and depressive symptoms. Physicians should investigate whether pain complaints are manifestations of other problems such as anxiety, depression, unemployment or other social problems. By doing so, proper mental health or even social work referrals can address the underlying cause of what could lead to misuse of prescription painkillers. In this case, the patient had a history of mental illness and was taking prescribed benzodiazapenes for her depression, signaling that her misuse of prescription opioids may have been due in part to her mental health status at the time of her accident. An understanding of the close correlation between mental health problems and non-medical use of prescription opioids in women is an opportunity to screen her for depression prior to discharge and ensure close follow-up with her primary care physician.

As always, awareness and knowledge of poly-pharmacy and drug-drug interactions should always be at the forefront of clinical decisions. For women, many use prescription opioids to enhance effects of sedatives while men have higher rates of current alcohol, barbiturate, and hallucinogen use. Additionally, for women coming in with poorly defined painful chronic medical conditions such as fibromyalgia or autoimmune polyarthritides, clinicians should consider alternative pain-management practices such as acupuncture or other nonpharmacologic approaches before turning to prescription opioid analgesics.

Other solutions, including the use of prescription drug monitoring programs (PDMPs), establishing practice guidelines, and standardized education of trainee providers on opioid pain medication use,[12,13] are not specific to men or women, but may support physicians in focusing less on the conflict with patients over the prescribing of opioids and more to the individual needs of each patient. Both male and female patients should be engaged early on in the course of pain treatment and educated about the limitations of opioids for pain control, the potential for dependence, addiction and death. Particular emphasis should be placed on the concerns of co-ingestions with other medications, alcohol or recreational drugs.

In summary, data has suggested significant gender differences of nonmedical users of prescription opioids. Understanding gender differences in specific risk factors for prescription opioid misuse and co-morbidities could be useful for healthcare providers. However, additional research is needed to further elucidate sex and gender differences in the initiation, perpetration, and treatment needs of men and women prescription opioid users. Recognizing the complex and distinct social, psychological, and clinical profiles of men and women opioid users may help providers develop more effective treatment plans and pain management practices.

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