Compassionate Care of the Patient Who Uses Substances

Implications for the Infusion Nurse

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ABSTRACT

Given the high rate of infection secondary to substance use, infusion nurses have a unique opportunity to compassionately engage individuals with substance use problems. Compassion is an essential ingredient of nursing practice, yet compassionate care of the individual who uses substances may seem difficult to navigate. This article provides the infusion nurse with the essential principles of compassionate care of the patient who uses substances. A fundamental understanding of how to work with patients who use substances may enhance the infusion nurse's practice.

Key words: addiction, compassion, ethical, infusion nursing, intravenous, opioids, substance use

Substance use has far-reaching societal impacts. Skin and soft tissue infections are common complications of illicit drug use, and it is well-documented that individuals who use intravenous (IV) methods to deliver substances are at highest risk for preventable infections such as bacteremia, infective endocarditis, soft tissue infections, osteomyelitis, and musculoskeletal complications.[1-4] This population is also among the most likely to be discharged from the hospital against medical advice, which significantly increases the likelihood of hospital readmission, longer overall hospital stays, and death.[5] Nursing concerns and apprehensions for care of the individual who uses substances may contribute to stigma and affect care.[6,7] Compassionate care of an individual who uses substances often requires a shifting of the lens.

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SIGNIFICANCE OF SUBSTANCE USE TO INFUSION NURSING

In 2017, 20 million people aged 12 years and older had a substance use disorder (SUD), but only 20% received treatment.[8] The burden costs the United States a vast sum of money; the nation's hospitalizations for severe infections requiring costly infusion therapies doubled in the last decade.[9] The skin is the largest organ in the body and is vulnerable to widespread infection, septicemia, and scarring, precipitating the need for infusion therapies. A cohort study conducted in Miami, Florida, found that 394 IV substance users (IVSUs) hospitalized with preventable bacterial infections resulted in more than 11 million dollars in health care expenditures; 92% of the individuals were either not insured or insured by Medicaid.[10] The financial impact of injection-type drug use alone underscores the importance of compassionate care.

The high rate of hospitalization among substance users has bolstered a pivotal shift to integrate substance use treatment into health care settings, efforts promoted by both the Affordable Care Act and other policies.[10] Infusion nurses are part of this change and can positively influence patient outcomes when attitudes toward patients are characterized by empathy, acceptance, and respect.[7] Compassion, therefore, is required for effective treatment and recovery. The American Nurses Association calls for compassionate care that respects the dignity and worth of all people—regardless of physical or mental problems—as

a competency of basic nursing practice.[11] Adequate nursing education that fosters critical thinking and cultural, ethical, compassionate awareness is crucial to enhance patient care and outcomes.[12] Nurses who are educated about the principles of addiction have been shown to feel more competent and have a better understanding of the ethical obligations for this population.[6] A fundamental understanding of how to work with patients who use substances may enhance the infusion nurse's practice.

COMPASSION IN NURSING

Most definitions of compassionate care incorporate cognitive, affective, behavioral, altruistic, and moral elements; the nurse is able to relate to and understand the patient's experience and intentionally act to ease pain and suffering.[13-15] Compassionate care of the individual who uses substances requires a devotion to learning about one's biases and judgments, the patient's personal experience of illness, and ethical patient-centered treatment approaches with balance, preparation, and mastery of skill.[13] Although nurses and other health care workers are trained to care for and treat persons with addictions, they may lack a vibrant experiential understanding of how to work with mental illnesses.[6] There is evidence that nurses do not feel equipped to care for patients with SUDs, largely due to a lack of familiarity and knowledge, organizational support, education, skill, and confidence.[6,16,17]

Compassion may be linked to one's perceptions of being able to understand and feeling empowered to help others. Nurses have reported feelings such as powerlessness, manipulation, fear, anxiety, mistrust, and hypervigilance when working with this patient population.[16,18,19] Addiction is often negatively constructed as an individual failing, and societal stigma has perpetuated the insidious cycle of social positioning with serious implications for access to care. A lack of knowledge may lead to a feeling of powerlessness, which can translate to a lack of sense of obligation to treat this population.[6,20] Literature shows that nurses in general have a more positive view of patients whose problems are "medical" in nature; perceptions can significantly impact care and inhibit compassion.[21,22] It is unclear, but there may be a sense of powerlessness when attempting to help patients who seem to struggle helping themselves.

Compassionate care of the person who engages in substance use, often viewed as self-destructive behavior, requires that nurses also have compassion for themselves, an understanding that, although the nurse–patient relationship remains the vehicle for change, the responsibility of change ultimately belongs to the patient. There exists a parallel process wherein the nurse who chronically manages patients with SUDs can become emotionally exhausted. *Compassion fatigue* occurs after ongoing encounters with "emotionally draining" patients.[23] Educating oneself about illness, nursing roles, and professional limitations has been shown to dampen compassion fatigue. Williamson[23] showed that an educational intervention about alcohol use disorders and compassion fatigue to emergency nurses (n = 44) helped to significantly change nurses' attitudes about working with people who have SUDs. The nurses also showed higher job satisfaction scores. In general, arming oneself with knowledge of the illness and having a sense of responsibility and limitation have been shown to be effective means to foster compassionate practice for working with this population.

NEUROBIOLOGY OF ADDICTION

The age-old question: Why can't they just stop? It is important for the nurse to understand that substance use occurs on a continuum from abstinence to severe use disorders. Many individuals engage in unsafe consumption patterns and behaviors that may eventually lead to problems (eg, job loss, relationship discord, difficulties fulfilling obligations). The outcomes of use are both physiological and psychological and become more harmful with chronic use. The risk for developing an SUD can be viewed from a biopsychosocial framework, wherein biological, psychological, and sociological dynamics cause a complex confounding of risk factors that increase a person's propensity for developing a substance use problem.[24] At a very basic biological level, the brain can be changed in such a way that it becomes "hijacked" during chronic substance use, severely inhibiting a person's ability to make reasonable, safe, and rational decisions.[25] There is a reward pathway in the brain implicated in compulsive behaviors in substance use. Although the decision to inject into a peripherally inserted central catheter (PICC) is obviously a poor decision from the perspective of safety, the brain that is chronically exposed to substances loses the ability to fashion sound judgment.

Generally, when a person uses a substance (via any route), a large amount of the neurotransmitter dopamine floods the reward pathway of the brain, and repeated exposure to dopamine will reinforce the substance-taking behaviors through conditioned associations.[24] The longer the duration of exposure—weeks, months, years—the more severe the conditioning. The brain enjoys homeostasis. When a person begins to use substances, the homeostasis is disrupted and the brain adjusts at the neuronal level to accommodate the substance. With repeated exposure to a substance, tolerance can develop. Tolerance refers to the individual's need for increased amounts of a substance to get the same effect (euphoria, relaxation).[25] Clinicians commonly worry about "med-seeking," which is often a behavior associated with physiological craving of a substance after tolerance and dependence have developed. Although this is a simplified explanation of the addiction process, there is an alteration in the levels of several neurotransmitters (opioids, cannabinoids, gamma aminobutyric acid, glutamate, and serotonin), and all are implicated in problematic behavioral manifestations seen in SUDs.[2]

BARRIERS TO CARE

There is a documented phenomenon whereby health care settings foster greater "risk environments" wherein factors and circumstances out of the individual's control may actually increase vulnerability and harm related to substance use.[26] For example, guidelines have been published that discourage outpatient antimicrobial therapies to persons who use substances.[27-29] There certainly is a valid concern raised about behaviors such as misuse of PICCs to inject substances that can harm the catheter.[29,30] Sentinel studies show that IVSUs engage in behaviors that are the primary risk factors for infection, including the use of unsterile injection equipment, contaminated drugs or fillers, sharing needles or injection equipment, and use of tap water or saliva in drug preparation.[31] Trends in data from urban public hospitals and government sources identify skin and soft tissue infections as 2 of the most common reasons to seek emergency care, yet IVSUs are actually often excluded from outpatient treatment and can be discharged without proper treatment.[32,33] When patients are treated differently due to substance use, they may attempt to hide behaviors and delay or avoid care because of mistrust, thus perpetuating detriment to the patient and society.

Persons who use substances may also have pain issues brewing for years, yet it emerges only when care is sought for infections, thus complicating recovery. Pain management is essential for improving the quality of life of patients with acute and chronic pain, yet several systemic problems also impede effective pain management. These include the lack of a neighborhood pharmacy or transportation to the pharmacy or pain specialist, an absence of high doses of opioids at the pharmacy, lack of a home caregiver to assist with administering medications, language barriers, and fear of addiction, tolerance, and side effects. Opioid medications are a common treatment option, and although overprescription of these medications has fueled the opioid epidemic, there are times when these medications are necessary.[34,35] Unfortunately, when patients do not have adequate pain control, they may resort to unsafe methods of pain control. In general, health care workers share valid safety and legal concerns regarding practice issues in a complicated patient population.[29,30] The question then becomes, how does the infusion nurse juggle limitations from safety and systems perspectives to provide compassionate care to a patient who is engaging in harmful behaviors?

HARM REDUCTION AS AN APPROACH

Harm reduction is a broad term for evidence-based interventions intended to reduce the negative consequences of maladaptive and harmful behaviors. Harm reduction techniques are patient-centered approaches to provide patient-focused, compassionate care of a person with substance use problems.[36] Compassionate acceptance of the patient's behaviors and illicit substance use can positively alter the patient's perception and experience of trust; thus, integrating harm reduction efforts could be of great value. An excellent example of harm reduction includes needle exchanges to decrease morbidity and mortality related to IV drug use. Every year there are approximately 30 500 new cases of hepatitis C, largely transmitted by contaminated needles.[37] Harm reduction discussions alone may engage patients and ease the fear of discussing substance use problems. For example, the introduction of naloxone to community sectors has shown benefit, because it may relate to patient trust in the health care workers.[38] A seminal study of naloxone distribution in Massachusetts showed that harmful opioid injection actually decreased in communities where naloxone was distributed.[38] Given the billions spent yearly on consequences related to all SUDs, harm reduction efforts should be integrated whenever possible.

Easing Complicated Pain

Pain affects more Americans than diabetes mellitus, heart disease, and cancer combined. In 2016, approximately 20% of US adults had chronic pain, and 8% had high-impact chronic pain.[34] Pain is cited as the most common reason that Americans access the health care system. Chronic pain is the most common cause of long-term disability.[34,39] Ineffective pain management has a huge impact on quality of life and can lead to emotional distress, functional limitations, problems in initiating and maintaining sleep, changes in appetite, social isolation, depression, financial burdens, caregiver burdens, and altered coping.[40-42] Opioids are often used for moderate-to-severe pain, as well as both nociceptive and neuropathic pain. Unfortunately, increases in opioid prescriptions (eg, morphine, Percocet, OxyContin) are a major factor in opioid addiction or accidental overdose.[34,35] Opioid misuse and overdose have become a public health crisis affecting thousands of Americans each year. According to the Centers for Disease Control and Prevention and the Department of Health and Human Services, more than 130 deaths each day are related to opioid overdoses.[34,43]

Infusion nurses should thoroughly assess pain and communicate with other health care providers. It is important to ensure initiation of adequate pain relief measures, as well as to evaluate the effectiveness of interventions. Infusion nurses should be familiar with opioid overdose signs/symptoms, such as unresponsiveness, pinpoint pupils, decrease in respirations or noisy breathing, cold and clammy skin, and cyanotic nails and lips. To combat opioid misuse and overdose, there are many local and federal initiatives, including conducting surveillance and research; better addiction, treatment, and recovery services; legislation; and opioid overdose prevention training. Infusion nurses should be comfortable educating patients on the recommendations for opioid use, including not sharing the opioid medication. Most people who are addicted to opioids took their first opioid from a relative or friend to whom it was legitimately prescribed.[8]

Having basic knowledge about pain (diagnosis, treatment, complications, and prognosis), available treatment options, and information about over-the-counter medications and self-help strategies is vital. Chronic opioid use may cause opioid-induced hyperalgesia, a phenomenon that describes an altered pain perception, making opioids less effective at treating pain.[44] It is important for infusion nurses to advocate for those in pain and to focus on prevention or control of pain, not waiting for severe pain to occur before treating. In addition, pain medications impact other medical problems and/or medications. Infusion nurses should always consider nonpharmacological management, such as massage, relaxation/meditation, transcutaneous electrical nerve stimulation unit, physical or occupational therapy, chiropractic treatments, acupuncture, exercise, and physical modalities (heat, cold). Because pain is influenced by cognition, affect, and behavior, other therapies include cognitive behavioral therapy and mind–body conditioning practices such as yoga, tai chi, or qigong. Most importantly, infusion nurses should be trained in the use of naloxone to treat opioid overdose.

IV SUBSTANCE USE COMPLICATES INFUSIONS

IV use of substances causes cellulitis, abscesses, and other skin and soft tissue infections, supporting the need for clean needles. One study of IVSUs in San Francisco, California, found that nearly one third had experienced skin and soft tissue infections.[45] Substances that are commonly injected may also be the most reinforcing; it has been found that IVSUs using cocaine may inject more than 20 times per day.[46,47] Reinforcement precipitates cravings, thus can contribute to the IVSU's propensity toward dangerous behaviors, such as accessing a port to inject, ultimately impeding the efficacy of the antibiotic infusion therapy.

Although these problems are common in the IVSU population, options for access to harm reduction in persons requiring infusion therapies are minimal. In Maryland, a multidisciplinary group recognized the problem with access to care for the IVSU in need of infusion services and developed a medically enhanced residential treatment model to provide hospital-based substance use services with long-term antibiotics.[48] The team saw that patients who used IV substances were not provided the same opportunity for skilled nursing and outpatient care as abstainers and wanted to test the feasibility of a hospital-based program. The program had low recruitment and retention but was seminal in its efforts to offer an integrated approach. Similar efforts to identify alternatives to care in risk environments have led to studies involving safe injection sites.[5] Although safe injection sites are largely illegal in the United States, the infusion nurse can still provide referrals to needle exchange programs and teach patients about the risks of contracting infectious diseases, as well as education on the safest places for the patient to inject.

For patients receiving home infusion therapies, safety concerns in the home may make the infusion nurse uncomfortable working from a harm reduction perspective. Markkanen et al[49] reviewed 10 safety problem scenarios of the home care worker and identified a number of concerns particularly relevant to home infusion therapies. In summary, the group found that common concerns include sharps injuries, noncooperation, unkempt working environment, threat of violence, clutter, and hoarding. The authors did not cite harm reduction specifically but did suggest that, when unique safety interventions are developed and implemented, home care workers were found to have more job autonomy, flexibility, and ability to develop caring relationships.

In general, when considering harm reduction efforts, it is imperative to see substance use through the eyes of the patient. The patient is engaging in a behavior to meet the physiological and psychological desire for the substance. The patient will likely inject intravenously, because that route provides the most immediate amelioration of discomfort. Compassionate care from a harm reduction framework certainly incorporates setting limits but in a manner that portrays acceptance of the behaviors that correspond with a patient's personal responsibility and choice. Open conversations about use patterns, suggestions about when and where to inject in relation to the timed infusion, and offering safe alternatives, such as clean needles, may benefit the patient. The infusion nurse can consider providing education about avoiding the use of the port to inject, guided by the policy and procedure set forth by his or her organization. Compassion is evident when the nurse engages the patient with respect for their condition.

Medication-Assisted Treatment for Opioid Use Disorders

There has been a significant increase in hospitalizations for infectious complications of opioid use disorder in the past 5 years—largely related to opioid overdose and infection.[9] Reviews have concluded that opioid agonist therapy is a way to reduce risky behaviors associated with injections among people who have infectious diseases.[21] Although these types of medication-assisted treatments (MATs) are not synonymous with harm reduction, there may be a reduction in secondary harm if the individual receives appropriate treatment. There is strong evidence for brief interventions that include discussions and referral or treatment with MATs. Infusion nurses can discuss these options with patients.[50-55]

There are 3 US Food and Drug Administration–approved medications to treat opioid use disorders: naltrexone, buprenorphine, and methadone. The treatment depends on a variety of factors, including the patient's preference and treatment goals. Opioid detoxification alone without MAT is shown to have high relapse rates; however, naltrexone is an opioid antagonist that may be appropriate for persons who are highly motivated for abstinence.[56,57] Naltrexone antagonizes (blocks) any opiate effect and may not be an optimal choice for a person who engages in heavy opioid use.

Indirect comparison of retention shows inferior outcome of naltrexone compared with methadone and buprenorphine.[58] Methadone is a full opioid agonist often appropriate for patients with histories of heavy and problematic opioid use. A recent Cochrane review supports buprenorphine therapy to help stop the illicit use of opioids and increase treatment retention.[53] Unlike methadone, buprenorphine can be prescribed from a clinician's office. The clinician may refer to the Substance Abuse and Mental Health Service Administration website for more information.[59] The infusion nurse can consider having a list of methadone clinics, buprenorphine prescribers, and substance use and other mental health providers handy. People who inject opioids and are not receiving opioid-based medication-assisted therapies are at greater risk of overdose; thus, provision of a naloxone kit should always be part of the treatment plan.[60]

Motivational Approaches

Motivational approaches can be integrated into brief encounters to help a patient change unhealthy behaviors related to substance use. Motivational approaches, guided by the principles of motivational interviewing, are patient centered, empathic, and intended to enhance a person's inner motivation to change through exploration and resolution of ambivalence.[61] Substance use occurs on a spectrum, and change is also on a continuum. Motivational approaches assume that change occurs in stages: precontemplation, contemplation, preparation/planning, action, and maintenance.[61] The approach highlights the inherent nature of recidivism and free-flowing change. The model also has strength in acceptance of individuality of motivation to change. A person may spend several years in precontemplation, develop an urge to change a behavior, and then relapse after preparing for change. The individual might also have a relapse during a maintenance stage of change and move right back to preparation by seeking treatment. Part of the infusion nurse's role in compassionate care is to understand the fluidity of the stages of change, expect relapse, and anticipate a change of course during the free-flowing process. Understanding these basic concepts is particularly helpful when encouraging the use of harm reduction methods.

Infusion nurses can integrate brief interventions into work with patients. These interventions are grounded in the motivational approach and are a way to approach discussions about substance use.[50] The discussions can last anywhere from 5 to 20 minutes and may incorporate harm reduction education. Screenings are also the beginning of intervention. After a patient is screened, feedback is provided. Screening also provides the nurse a chance to gauge the patient's reaction to the results. There is an opportunity to build trust through style and presentation when the patient feels no sense of judgment. The infusion nurse team might also consider developing relationships with emergency department providers to refer patients who are using substances to specialists. The infusion nurse can also keep a handy referral list for substance use treatment services, such as methadone clinics, buprenorphine prescribers, and outpatient rehabilitation services.

The infusion nurse should approach all conversations using the OARS approach: open-ended questions, affirmations, reflections, and summarizing.[61] Change talk is used to illicit the patient's perspective on why change could be helpful. One way to go about this is by asking the patient, "What does the heroin do for you?" and "Is there anything that you don't like about using heroin through the port?" The responsibility for recognizing problems with substance use is directed to the patient. The nurse reflects with statements such as, "What I hear you saying is that you have been thinking about the harm it might eventually cause if you continue to inject through your port." Conversations are specific to the patient's use pattern and motivation to change: "We discussed that you're not quite sure yet if you want to quit, but you shared that you're tired of getting sick." In general, the OARS style reflects compassion and rolling with the resistance, key factors in developing a trusting relationship with the patient. Infusion nurses should check with risk management before providing the education. If there is no standard policy, there exists opportunity to develop such evidence-based protocol.

Screening

Compassionate care is holistic and comprehensive and includes identifying patients' needs even if they are unaware of them. Many individuals with severe substance use problems diagnostically qualify for more than one SUD, and polysubstance users are at high risk of negative substance-related outcomes.[8,60] The US Department of Health and Human Services recommends screening for illicit substance use in a variety of settings.[62] It is possible to screen for and treat a person for one substance problem while the person still engages in use of another substance, such as treating opioid use disorder even if the patient is using benzodiazepines. The National Institute on Drugs and Alcohol (NIDA) Quick Screen[63] for substances, found to be 100% sensitive and 75.3% specific for detection of a SUD, was adapted from a single-question screen used in primary care by Smith et al,[64] who conducted the research that validated this tool (Table 1). The NIDA tool can be easily and quickly implemented and used as a conversation starter to gauge substance use.[63] Appropriate brief interventions and referral to specialist care can be completed as needed based on the findings of screens and individual assessment.

SPECIAL POPULATIONS

Aging Older Adult

In the wake of the current opioid epidemic in the United States, there has been a dramatic increase in not only alcohol and illicit substance use among older adults, but substance overdose death rates in adults ages 55 to 64 years and 65 and older.[35,63,65] About one third of all prescriptions in the United States are written for older adults, and it is

TABLE 1

The NIDA Quick Screen for Alcohol and Other Substance Use[a]

Quick Screen Question: In the past year, how often have you used the following:	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
Alcohol For men, 5 or more drinks a day For women, 4 or more drinks a day					
Tobacco products					
Prescription drugs for nonmedical reasons					
Illegal drugs					

Abbreviation: NIDA, National Institute on Drug Abuse.
[a]Data from NIDA.[63]

estimated that 25.4% of all opioid prescriptions extending more than 90 days are written for older adults.[66,67] Older adults are sometimes more sensitive to the analgesic properties, and metabolism and excretion in this group are also slowed. High rates of chronic pain in older adults may account for some of the increase in opioid misuse among this population (ages 60-64 years).[68] In general, infusion nurses should be aware to note any specific needs of the older adult and refer for specialty services.

Pregnant Women

Pregnant women are in a unique position to be highly motivated for treatment. Pregnant women who use opioids and other substances are at a high risk for adverse outcomes, which may potentially cause harm to self and fetus. Barriers to care include a limited number of specialized treatment programs prepared to treat this population and patient and clinician fear of criminalization.[69,70] MAT is the gold standard for women in the perinatal period, and evidence supports the efficacy of both buprenorphine and methadone as viable options for pregnant women with opioid use disorder.[69,71] These medications have been shown to help women adhere to prenatal care, decrease illicit substance use, reduce infections related to IVSU, and improve infant birth weight.[72] Pregnant women should be offered care with the closest substance use provider.[73]

CONCLUSION

Nurses may grapple with understanding how to adhere to compassionate standards of care with a population that is rather difficult to engage with traditional methods. It may be difficult for infusion nurses to work with individuals who engage in risky and unsafe substance use behaviors that precipitate and perpetuate illness. Infusion nurses in all settings have high levels of exposure to this population, thus an immense opportunity to improve the way SUDs are viewed and managed. These individuals can still be treated with compassionate care, often with a slight deviation from the "acceptable" norm. Education about the pathology and etiology of addictive processes may be of benefit to the infusion nurse. There exist several deficits at the systems level that may impede the infusion nurse's ability to provide patient-centered care. Infusion nurses are, at their core, compassionate and dedicated professionals, trained to follow high-level standards of care. Guidelines and quality metrics for the specialized treatment of patients who are actively using substances should be developed by facilities and accreditation agencies to protect patients, the public, and infusion nurses.

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