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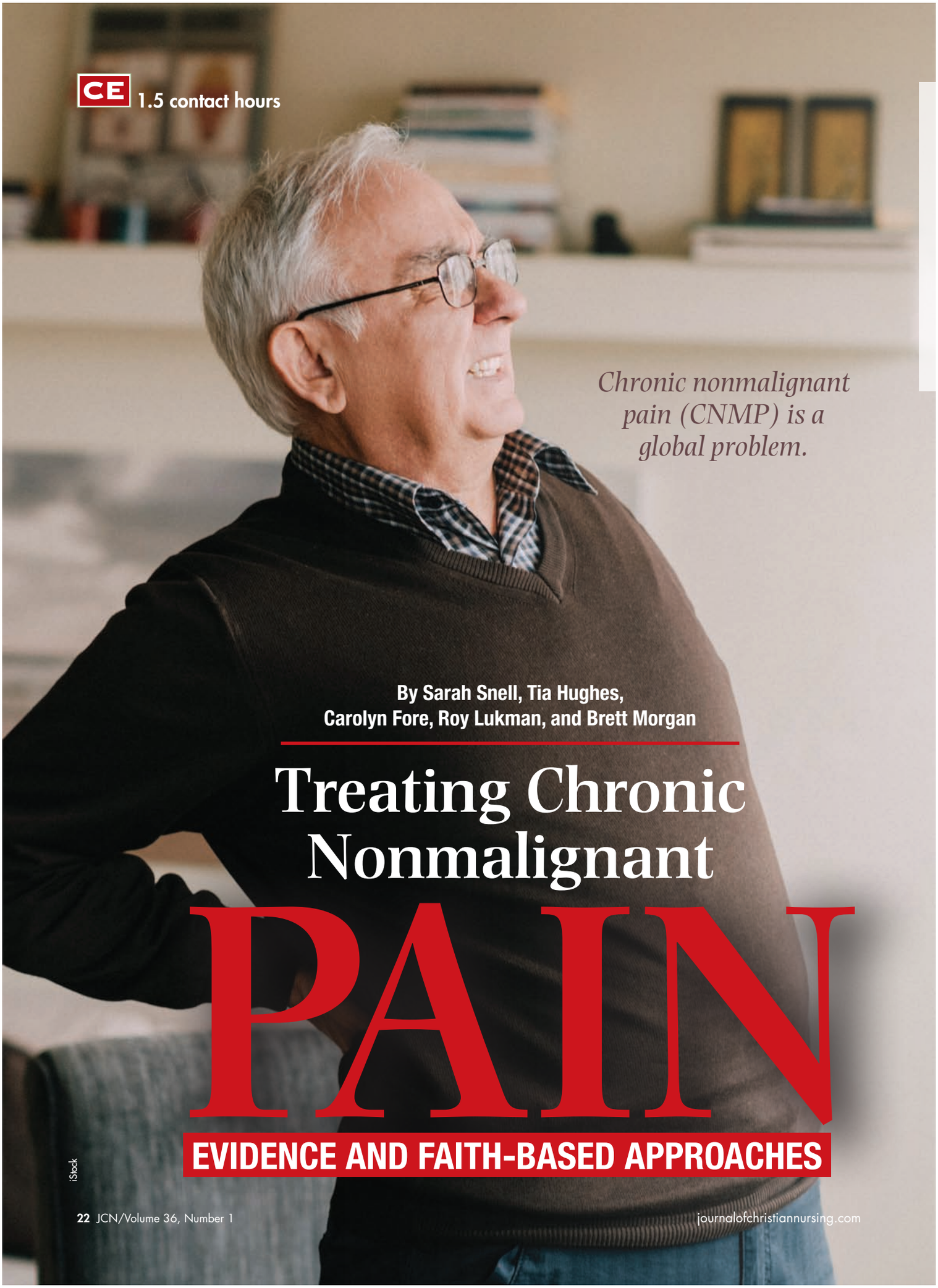

Chronic nonmalignant pain (CNMP) is a global problem.

By Sarah Snell, Tia Hughes, Carolyn Fore, Roy Lukman, and Brett Morgan

Treating Chronic Nonmalignant PAIN

EVIDENCE AND FAITH-BASED APPROACHES

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ABSTRACT: *A significant portion of the world's population is impacted by chronic pain; in the United States, chronic pain costs billions annually in treatment and lost productivity. A needs assessment was conducted to evaluate the prevalence of chronic nonmalignant pain (CNMP) at a university occupational therapy clinic over a 3-month period; recommendations were made to improve pain management at the clinic and referring hospital system. Graded Chronic Pain Scale 2.0 results indicated the prevalence of CNMP was a significant problem. Three evidence-based interventions based on the biblically based CREATION Health Model were developed.*
KEY WORDS: *chronic pain, CREATION Health Model, needs assessment, nursing, occupational therapy, opioid abuse, outpatients, pain management*

Ms. Rodriguez is a 50-year-old Hispanic female, who presents with a diagnosis of cerebrovascular accident (CVA) and concurrent left-sided hemiparesis. She is receiving occupational therapy to assist in retraining self-care skills and to address ongoing physical deficits to increase independence. She is married, has a college education, and is unemployed. Primary physical complaints include frequent burning pain in her left shoulder and wrist, edema, muscle spasticity, and joint stiffness. She takes acetaminophen, which she states does not help her pain. Ms. Rodriguez's case is typical of persons who suffer with chronic nonmalignant pain.

Sarah Snell, DNP, CRNA, teaches in the Department of Nurse Anesthesia, Adventist University of Health Sciences, Orlando, Florida.

Tia Hughes, DrOT, is the program director for the occupational therapy program at Adventist University of Health Sciences.

Carolyn Fore, PhD, RN, is a professor in the Department of Nursing at Adventist University of Health Sciences.

Roy Lukman, PhD, is the director, Department of Institutional Research at Adventist University of Health Sciences.

Brett Morgan, DNP, CRNA, is director of the Nurse Anesthesia Doctor of Nursing Practice Program, Duke University School of Nursing, Durham, North Carolina.

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Chronic nonmalignant pain (CNMP) is a global problem. In 2014, 10% to 25% of the world's population was impacted by chronic pain, with an additional 1 in 10 people projected to develop chronic pain every year (Jackson, Stabile, & McQueen, 2014). In the United States, chronic pain is estimated to cost $560-$635 billion annually from healthcare and lost productivity. This is a conservative estimate, not taking into account institutionalized or military persons, those younger than 24 or older than 65, or caregivers who miss work. In addition, the emotional cost is tremendous (Institute of Medicine Committee on Advancing Pain Research, Care, and Education [IOM], 2011).

In Florida, the issue of CNMP came to public attention through pain medication prescription practices. In 2010, "90 of the top 100 oxycodone purchasing physicians in the nation were in Florida" (United States Drug Enforcement Administration, 2013, p. 1). Since this report, aggressive regulation has led to progress in appropriate prescribing practices in Florida. However, regulatory changes have resulted in unforeseen consequences. Floridians with legitimate needs for narcotics have difficulty obtaining needed medications. Even more alarming are reports of suicide as a direct result of uncontrolled pain (Crawford, 2015; Grant, 2015; Paulson, 2015). Although research evidence documenting outcomes of uncontrolled CNMP is needed, providers cannot ignore public outcry or risk inhumane treatment of those with pain.

In 2014, Lynn R. Webster, president of the American Academy of Pain Medicine, warned that strict control of prescription narcotics without safe, appropriate treatment alternatives could lead to difficulties for patients who need legitimate access to chronic pain care (Cheatle, 2011; Garcia, 2013; Webster, 2014). Addressing the rising burden of chronic pain and opioid use will require a deliberate approach that recognizes the use of nonpharmacologic interventions as a component of treatment.

CHRONIC PAIN IN OUTPATIENT SETTINGS

Adventist University of Health Sciences (ADU), a private Christian university, stresses the importance of healthcare as ministry. ADU owns and operates Hope Clinic, which provides occupational therapy services to vulnerable, underserved, and uninsured patients. The CREATION Health Model (Sidebar 1) outlines the Florida Hospital System (FHS, n.d.) and Hope Clinic's vision for holistic care and wellness (FHS, 2014). This biblically based model presents an opportunity to explore a holistic pain management strategy, as recommended by the Institute of Medicine (IOM, 2011). The model is designed to impact physiological, psychological, social, and spiritual aspects of care.

To better serve clients, data regarding the prevalence of CNMP at the clinic were needed. The scope of the problem within the clinic and referring eight hospital FHS was not available, as charting was completed in narrative format and ICD-10 (International Classification of Diseases, 10th revision) codes for documenting diagnoses and reimbursement were not used. Similarly, no information was available regarding the prevalence of CNMP within the referring FHS. A formal analysis was needed to determine the prevalence of CNMP and the distribution of presenting diagnoses.

A pilot project was developed to evaluate the prevalence of CNMP

within the Hope Clinic, perform a system use-analysis for CNMP patients within the referring FHS, and recommend interventions for successful pain management. A retrospective report of chronic pain specific ICD-10 codes was requested from the FHS and analyzed. The study was submitted to the ADU and Duke University Institutional Review Boards and classified as exempt. The project took place over a 3-month period in the ADU Hope Clinic during spring 2017.

A Certified Registered Nurse Anesthetist (CRNA) was recruited to evaluate the prevalence of CNMP at Hope Clinic and the referring FHS and quantify the problem of CNMP. CRNAs receive extensive education regarding pain and its management, and they meet the Institute of Medicine Committee on Advancing Pain Research, Care, and Education's criteria of practitioners best suited for the chronic pain management role (IOM, 2011).

A three-phase needs assessment framework was implemented using a descriptive quantitative design (Altschuld & Watkins, 2014; United States Department of Education, 2001). *Phase 1* included a preassessment collection and analysis of data already present in records, databases, and the literature. If information gaps were identified, *Phase 2*, the assessment phase, was implemented; this consisted of further collection of data and analysis. *Phase 3*, the postassessment phase, included the prioritization of needs, further literature review, formulation of an action plan, and recommendations for pain management.

THREE-PHASED ASSESSMENT

Phase 1: Preassessment. A preliminary literature review indicated that CNMP is a problem globally, nationally, and within Florida (Fayaz, Croft, Langford, Donaldson, & Jones, 2016; Goldberg & McGee, 2011; IOM, 2011; Janevic, McLaughlin, Heapy, Thacker, & Piette, 2017). Interviews of key stakeholders (ADU Chief Executive Officer, Hope Clinic board members, clinic director) were conducted to determine potential facilitators and barriers regarding a CNMP project within the Hope Clinic. Interview questions are available online as supplemental digital content (SDC) at http://links.lww.com/NCF-JCN/A61.

Phase 2: Assessment. This active phase included data collection from patient interviews, assessment of CNMP among patients, and evaluation of results. All pertinent data were extracted from patients' charts and entered into a spreadsheet, then exported to Statistical Package for the Social Sciences (SPSS) software for analysis.

To assess pain, the *Graded Chronic Pain Scale 2.0* (GCPS) was self-completed or administered as part of patient interviews, conducted by the occupational therapist when functional status did not allow for self-completion. The GCPS is an eight-item questionnaire that assesses pain intensity and pain-related interference with life activities, and allows for differentiation between persistent and nonpersistent pain (Ferrer-Peña et al., 2016; Turk & Melzack, 2011; Von Korff, Ormel, Keefe, & Dworkin, 1992).

For this project, pain was considered chronic if it was experienced for a minimum of 90 days of a 180-day period. Table 1, Question 1 notes how many days within the last 6 months the patient felt pain and could be scored 0 to 180, where nonpersistent pain (1–89 pain days) equals 0 and persistent pain (90–180 days) equals 1. The remaining seven GCPS questions were scored on a Likert scale from 0 to 10 for each question. Scores for questions 2 to 4 were summed for characteristic pain intensity; questions 5 to 8 were summed for a disability score. These scores were then categorized, using five possible grades from Grade 0 to Grade 4 (Table 3).

In addition to documenting information about pain status, the patients' gender, age, employment status, marital status, and level of education were noted. Other data included presenting diagnosis, past or present diagnoses associated with chronic pain, and medications associated with chronic pain prescribed before or after admission to Hope Clinic.

To determine the prevalence of CNMP within the referring FHS, a retrospective report of chronic pain specific ICD-10 G89 codes, "Acute pain, not elsewhere classified," was requested and analyzed. The G89

The CREATION Health Model

The CREATION Health Model is Florida Hospital's vision for whole patient care and wellness. This model presents a unique opportunity to explore a more holistic pain management strategy, as recommended by the Care Committee on Advancing Pain Research & the Institute of Medicine (IOM, 2011, p. 129). This faith-based wellness plan advocates for the practice of eight principles, represented by the letters in the word *creation*, to assist people to live healthier, happier lives:

- **Choice** encourages individuals to make careful, well-thought-out choices that are aligned with personal goals to improve outcomes;
- **Rest** is addressed as a powerful tool for regeneration and improved health;
- **Environment** focuses on the impact of our external space and its impact on mood and health;
- **Activity** is the interrelation of mental and physical activity and the importance of both for personal health;
- **Trust** stresses a relationship with God and its positive impact on health and life expectancy;
- **Interpersonal Relationships** are important to maintain or improve quality of life and promote health;
- **Outlook** is the impact of a positive perspective and learned optimism on health and healing;
- **Nutrition** impacts dietary choices that lay the foundation for improved health, healing, and longevity.

Note. Adapted from Florida Hospital System (n.d.) and Reed & Wallace (2007). Used with permission.

code set contains 13 possible ICD-10 codes, and all were requested; only three codes specific to CNMP were represented in the data: G89.28 "Other chronic post procedural pain"; G89.29 "Other chronic pain"; and G89.4 "Chronic pain syndrome." A comparison of prevalence rates for Hope Clinic and the referring FHS was completed.

Phase 3: Postassessment. Information from Phases 1 and 2 was compiled and analyzed. Hope Clinic's existing resources were evaluated, a secondary literature review was performed, and an action plan was formulated to initiate the process of CNMP management within Hope Clinic. Recommendations were provided to the board of directors.

INADEQUATE PAIN MANAGEMENT

In Phase I, key stakeholders at Hope Clinic were asked for their input. Response themes developed from interviews were: 1) a desire for continued and expanded services provided for community and resource-poor individuals; 2) interventions to strengthen institutional relationships; and 3) the formulation of achievable recommendations that consider facility and institutional resources.


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TABLE 1:
Questions Included on the *Graded Chronic Pain Scale* V. 2.0

Q1	On how many days in the last 6 months have you had pain? ____ Days (out of 180)
Q2	How would you rate your pain right now on a scale of 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"?
Q3	How intense was your worst pain in the past 3 months, rated on a scale of 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"?
Q4	On the average, how intense was your pain in the past 3 months, rated on a scale of 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"?
Q5	How many days has pain kept you from your usual activities, like working, attending school or doing housework, in the past 3 months? Days: None 1 2 3–4 5–6 7–10 11–15 16–24 25–60 61–75 76–90
Q6	How much has pain interfered with your daily activities in the past 3 months, rated on a scale of 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities"?
Q7	How much has pain interfered in your recreational, social, and family activities in the past 3 months, on a scale of 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities"?
Q8	How much has pain interfered in your ability to work, including housework, in the past 3 months, on a scale of 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities"?

Note. Adapted from Von Korff et al. (1992) and Ferrer-Peña et al. (2016). Used with permission.

During Phase 1, it was discovered that data were absent on the presence of CNMP, pain intensity, and the degree to which pain interfered with activities of daily living for patients within Hope Clinic; data on the prevalence of CNMP in the referring FHS also were lacking. Data either had not been collected or had not been analyzed. Likewise, basic demographic information was absent.

During the 3-month project implementation period, 38 patients presented to Hope Clinic. Of these, five were not eligible to participate (three were under age 18; two did not return after the first visit). Thus, 33 patients (N = 33) were included in data analysis, of whom 17 met criteria for CNMP. Demographic information for these patients is presented in Table 2.

Table 3 notes the chronic pain grades reported by participants. Of the 33 participants, 25 (75.8%) experienced a Grade 1 pain or higher. Among the 25 patients with gradable pain, 19 (76%) reported Grade 2 or higher, denoting high pain intensity with moderate-to-severe interference. Patients whose pain was categorized as nonpersistent (n = 16, 48.5%) were less likely to experience high-intensity pain, which resulted in moderate-to-severe activity interference (n = 5; 31.4%), compared with those who had persistent pain (n = 14; 82.3%). Seventeen (n = 17) patients experienced pain for 90 days or more, thus, the prevalence of CNMP was 51.51% (Table 3). The most common concurrent medical diagnoses were CVA in 11 patients (64.70%) and hypertension in 3 (17.65%) (Table 2).

The distribution of pain medications for patients with CNMP was analyzed. A total of 34 medications were taken for pain. Of these, 10 patients (29.4%) were taking nonnarcotic analgesics. Other medications included narcotic analgesic combinations, for example, Norco (n = 5; 14.7%); anticonvulsants, for example, Keppra (levetiracetam) (n = 4; 11.8%); and antidepressants, for example, Trazodone (n = 3; 8.8%). Five patients (14.7%) were not taking pain medications.

The prevalence of nonemergency department FHS outpatients with

TABLE 2: Demographic Information for Patients with Chronic Nonmalignant Pain (*n* = 17)

Parameter	*n* (%)
Mean Age	56
Standard deviation	14.11
Age range *(years)	28–75
Patients ≤65 years of age	12 (70.6%)
Ethnicity	
Caucasian	4 (23.5%)
African American	5 (29.4%)
Hispanic/Latin American	5 (29.4%)
Native Hawaiian/ Pacific Islander	1 (5.9%)
Asian	1 (5.9%)
Did not specify	1 (5.9%)
Gender	
Male	8 (47.1%)
Female	9 (52.9%)
Marital Status	
Married	10 (58.9%)
Unmarried	6 (35.3%)
Did not specify	1 (5.9%)
Employment Status	
Unemployed	12 (70.6%)
Retired	4 (23.5%)
Did not specify	1 (5.9%)
At least high-school education	11 (64.7%)
Diagnoses	
Cerebrovascular accident	11 (64.7%)
Hypertension	3 (17.65%)
Lymph edema	1 (0.06%)
Rheumatoid arthritis	1 (0.06%)
Radical mastectomy/ radiation therapy	1 (0.06%)

CNMP (G89 codes) over 3 months was 1.00% (*n* = 1,290 out of 128,601), whereas the prevalence for all outpatient emergency department patients with G89 codes was 0.16% (*n* = 203). Information about CNMP patients for each hospital is available online as SDC at http://links.lww.com/NCF-JCN/A61.

RECOMMENDATIONS FOR PAIN MANAGEMENT

Based on the needs assessment, the following recommendations were made:

1. Integrate the collection of demographic data, as well as the GCPS into the initial assessment for all patients admitted to the clinic.
2. Administer the GCPS at consistent intervals to establish the "effectiveness of treatments in reducing pain and pain-related disability" (IOM, 2011, p. 6).
3. Develop relationships with patients' primary care providers to discuss evidence-based medication management and ensure that the most effective pain medications are used consistently.
4. Implement evidence-based cognitive behavioral strategies as part of a CREATION-based treatment plan to assist patients in changing maladaptive pain behaviors, enhancing personal relationships, and developing positive coping strategies (Heapy et al., 2016; Heutink et al., 2012; IOM, 2011).
5. Ensure that patients with CNMP are:
   a. Evaluated for both insomnia and depression, as treatment of these conditions may have a beneficial impact on pain and other comorbidities.
   b. Evaluated for the presence of life stressors and extent of coping skills, as these provide insight into the onset and/or maintenance of insomnia, CNMP, and depression (Finan & Smith, 2013, p. 180).
   c. Provided a printed copy of "Psychological and Behavioral Treatments for Insomnia" (Morin et al., 2006) to help with behavioral modifications to decrease insomnia and depression.
6. The FHS should engage in a quality-improvement project to optimize the use of correct ICD-10 codes, which is likely to capture lost revenue and improve patient outcomes.

CREATION MODEL EVIDENCE-BASED INTERVENTIONS

Demographic information is important to a comprehensive understanding of population characteristics so providers can identify patients with CNMP; develop a targeted approach to managing symptoms appropriately, and reduce pain-related disabilities (Mills, Torrance, & Smith, 2016; van Hecke, Torrance, & Smith, 2013). Clinic patients who met the criteria for CNMP had the following characteristics: female, married, of African American or Hispanic descent, unemployed, in their 50s, and some level of college education. In other studies, CNMP patients most commonly were female, married, of older age, unemployed, and educated at high school level or less (IOM, 2011; van Hecke et al.).

These findings differ from the literature on principal diagnosis and medication regimens. The three most common

TABLE 3: Graded Chronic Pain Scale v. 2.0 Results (*N* = 33)

Grade	Characteristic Pain Intensity Score (Q2–Q4)	Disability Score (Q5–Q8)	Description	*n* (%)
Grade 0	< 15	<17	No pain problem	8 (24.2%)
Grade 1	<15	<17	Low pain intensity, low interference	6 (18.2%)
Grade 2	>15	<17	High pain intensity, low interference	7 (21.2%)
Grade 3	>15	17–24	High pain intensity, moderate interference	7 (21.2%)
Grade 4	>15	25–40	High pain intensity, severe interference	5 (15.2%)
Pain Persistence	**Days**		**Classification**	***n* (%)**
Non-Persistent	1–89		0	16 (48.5%)
Persistent	90–180 (CNMP)		1	17 (51.5%)

CNMP-associated diagnoses are lower back pain, migraine, and neck pain (Gatchel et al., 2018). Within Hope Clinic, the primary diagnosis of patients with CNMP was CVA, most likely because the clinic offers only occupational therapy and rehabilitation services, where the primary goal is to help patients recover or develop skills for daily living and working.

We chose to utilize three principles from the CREATION Health Model (Sidebar 1) in our recommendations for improving the management of CNMP control within Hope Clinic: Choice in behavioral strategies; Rest to refuel and refocus; and Interpersonal relationship development to assist in healing. These biblical principles are supported in Psalm 55:22 and Matthew 11:28.

Three evidence-based interventions were identified and mission aligned with both the Hope Clinic and the FHS to assure that the interventions share the same trajectory (Daft, 2015): cognitive behavioral

The CREATION model is designed to impact physiological, psychological, social, and spiritual aspects of holistic care by focusing on eight key principles.

Updated Guidelines for Pain Assessment and Management

The opioid prescribing and addiction crises have resulted in significant changes in the standard of care for pain assessment and management. Opioids are a class of drugs derived from the opium poppy plant to relieve pain and achieve relaxation. Opioids include approved prescribed medications, such as morphine, hydrocodone, or oxycodone, and illicit and illegal drugs, such as heroin. Persons with drug addiction tendencies can fall into illicit drug use or abuse the use of prescription medications in an effort to relieve chronic pain. Increasing our understanding of the standards of care associated with pain management can not only treat pain, but help prevent addiction. Below are updates from major stakeholders in pain management.

American Pain Society (APS). In 2009, the APS published clinical guidelines for the use of opioids in chronic noncancer pain. While acknowledging that evidence was not always strong for these practice guidelines, broad recommendations were made, including: appropriate use of opioids and dosing; risk stratification; informed consent with management plans; titration and discontinuation of opioids; prevention and management of side effects; safety related to driving and work; and developing opioid policies and procedures (Chou et al., 2009). Harm–benefit ratio should be carefully considered, and a written management plan implemented. A therapeutic opiate trial should be considered, along with individualized dosing and management, particularly in high-risk persons.

American Society for Pain Management Nursing (ASPMN). ASPMN has published several position statements, the most recent in collaboration with the APS (Drew, Gordon, Morgan, & Manworren, 2018), which discusses the role of the nurse in appropriate dosing of prn pain medications. The society, whose mission is to

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promote best practices in pain management nursing, said they "support safe medication practices and the appropriate use of PRN range orders for opioid analgesics in the management of pain" (p. 207). An earlier position statement (Pasero, Quinlan-Colwell, Rae, Broglio, & Drew, 2016) stated that ASPMN did *not* support patient-reported pain intensity as a sole criterion for opioid prescription, but that holistic assessment was needed to avoid negative patient outcomes.

Centers for Disease Control and Prevention (CDC). The CDC (Dowell, Haegerich, & Chou, 2016) updated its guidelines for opiate prescribing to focus on three areas: determining when to use opioids for chronic pain; appropriate dosing, treatment, and monitoring; and risk assessment/addressing side effects or harm. There are 12 recommendations. Of particular note are: Dose recommendations, with a caution note, are lower in the new guidelines, due to the increased risk of harm and death with even low doses, such as daily 20 to 50 morphine milligram equivalents; the benefit–harm ratio should be evaluated at least every 3 months; concurrent opiate and benzodiazepine therapy should be avoided. These revised guidelines emphasize safer care and risk assessment.

The Joint Commission (TJC). In January 2018, TJC added revisions to its standards for accredited hospitals to specifically require the following (2018, para 3):

- Establish a clinical leadership team;
- Actively engage medical staff and hospital leadership in improving pain assessment and management, including strategies to decrease opioid use and minimize risks associated with opioid use;
- Provide at least one nonpharmacologic pain treatment modality;
- Facilitate access to prescription drug monitoring programs;
- Improve pain assessment by concentrating more on how pain is affecting patients' physical function;
- Engage patients in treatment decisions about their pain management;
- Address patient education and engagement, including storage and disposal of opioids to prevent these medications from being stolen or misused by others;
- Facilitate referral of patients addicted to opioids to treatment programs.

Common threads run throughout these organizations, practice guidelines, and standards of care related to pain management and opioid treatment. These include risk assessment, weighing risk-benefit, not using opioids as single therapy for chronic pain, appropriate prescribing at lower doses, addressing adverse effects of opioids, closer monitoring, exploring nonpharmacologic options, and safety considerations.

—Kristen L. Mauk, Contributing Editor

strategies; psychological and behavioral treatments for insomnia; and careful assessment and observation for patients experiencing dysfunctional social environments or complete lack of support systems.

Evidence is supportive of cognitive behavioral strategies as an important component of an effective chronic pain treatment plan. Primary benefits result from modification of maladaptive pain behaviors and assisting patients in the development of positive coping strategies (Care Committee on Advancing Pain Research & Institute of Medicine, 2010; Heapy et al., 2016; Heutink et al., 2012).

The prevalence of insomnia in patients presenting with chronic pain is estimated at 50% to 80% (Alföldi, Dragioti, Wiklund, & Gerdle, 2017). Depression is frequently comorbid with chronic pain and insomnia. These conditions are thought to be "mutually interacting, each increasing the risk for the emergence and/or exacerbation of the other" (Finan & Smith, 2013, p. 173). Patients with centrally mediated chronic pain, as is the case with many CVA patients, are more likely to experience depression and insomnia (Finan & Smith). Therefore, recommendation was made that Hope Clinic patients experiencing chronic pain receive psychological and behavioral treatments for insomnia.

Among the 25 patients with gradable pain, 19 (76%) reported Grade 2 or higher, denoting high pain intensity, with moderate-to-severe interference.

Patients with chronic pain who have a strong social support system experience a reduction in pain severity and are better adjusted. It has been postulated that pain can be socially modulated (Krahé, Springer, Weinman, & Fotopoulou, 2013). Social support is considered an external resource in cognitive-behavioral approaches for pain management. However, social interactions can also be dysfunctional as a result of invalidation, ostracism, and stigmatization. Negative social interactions can impede the rehabilitation process and create a perception of heightened pain severity (Karos, 2017; Waugh, Byrne, & Nicholas, 2014). It was recommended that clinic staff receive education regarding the impact of positive or negative social contexts, to observe for dysfunctional social environments, and to "create a safe and validating environment for patients that facilitates understanding and recovery from pain" (Karos, p. 293).

APPROPRIATE USE OF MEDICATION

CNMP syndromes associated with CVA may include central poststroke pain, peripheral neuropathic pain, pain from spasticity, and pain from shoulder subluxation (O'Donnell et al., 2013). Recommended drug treatment has traditionally relied on antidepressants and antiepileptic medications as first-line therapy. Recent safety concerns have led to transition of opiates from a first-line to a third-line agent. Currently, however, nonnarcotic analgesics are not recommended for the treatment of neuropathic pain, as this type of pain responds poorly to this class of medications (Finnerup et al., 2015).

The medication regimens of CNMP patients within the Hope Clinic deviated significantly from standard treatment

Web Resources

- The Joint Commission—https://www.jointcommission.org/topics/pain_management.aspx
- The American Pain Society—http://americanpainsociety.org/
- American Society for Pain Management Nursing—http://www.aspmn.org/Pages/default.aspx
- Centers for Disease Control and Prevention—https://www.cdc.gov/drugoverdose/prescribing/guideline.html

recommendations—a finding supported in the literature (Torrance et al., 2013). Of those taking medications specifically for pain, the primary classification represented was nonnarcotic analgesics (29.4%), which are generally ineffective. Narcotic analgesics, now considered third-line agents, were the second most common medication identified (14.7%). Antidepressants and anticonvulsants, which are first-line agents, were only used in 8.8% and 11.8% of patients, respectively.

Of greatest concern were patients identified as experiencing CNMP but not taking any medication to assist in management. Further exploration into nonpharmacologic strategies for pain management used by these patients is needed. Sidebar 2 offers the latest updates for pain assessment and management.

Study limitations include the selection of a center that offered a single-service line (occupational/rehabilitation therapy), and using only ICD-10 G89 codes to identify CNMP in the hospital system. This resulted in the compilation of a small, homogenous sample. Additionally, although medication lists were obtained and analyzed, no contact was made with primary care providers. Interprofessional collaboration would have provided a more effective pain-management approach. Finally, the use of ICD-10 G89 codes as the exclusive means of pain identification may have resulted in an inexact representation of the true prevalence of CNMP within the referring FHS. Relying on an emergency department or outpatient-facility staff to identify and report patients experiencing CNMP may have resulted in an increase in the number of identified patients. These limitations restrict generalizability.

NURSING MANAGEMENT

The crucial role of nurses is to provide appropriate assessment and medical management of patients with CNMP and help avoid improper pain management. Poor pain management adversely affects patients physically, psychologically, and socially. CNMP management should be diagnosis-specific, patient-centered, and evidence-based. CREATION health strategies can be implemented based on diagnosis and patient.

Nurses, locally and globally, are confronted with a high prevalence of CNMP and inadequate identification methods for CNMP, prevalence of pain and care disparities in selected populations, inadequate management of CNMP, and a growing opioid epidemic (IOM, 2011). This constellation of challenges requires a patient-centered approach that nurses are uniquely suited to address. Study findings support that a clear understanding of a given patient population must guide recommendations for patient care.

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