Use of Multimodal Multidisciplinary Pain Management in the US

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The Institute of Medicine report "Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research," the US Department of Health and Human Services (DHHS) National Pain Strategy, and DHHS Pain Management Best Practices Inter-Agency Task Force all agreed that multimodal multidisciplinary approaches (MMAs) are the standard for pain management, with meta-analyses of multinational data concluding that MMAs reduce pain severity, improve mood and overall quality of life, optimize daily life functioning, and increase social, physical, and psychological well-being.1,2 Given these data, the Veterans Health Administration and the Department of Defense have incorporated MMAs into their standard pain management approaches.

Depending on patient characteristics, MMAs will usually be individualized to include one or more types of medication (both nonopioids and opioids when appropriate), some type of restorative therapy (eg, physical therapy [PT] and/or occupational therapy), and some type of behavior approach (eg, cognitive behavioral therapy, mindfulness-based stress reduction). Multidisciplinary approaches can also include invasive interventional approaches (eg, epidural corticosteroid injections, sympathetic nerve blocks), and/or complementary and integrative approaches (eg, acupuncture, chiropractic, tai chi). It is, therefore, not surprising the MMAs studied in clinical trials and other longitudinal studies vary considerably with respect to dose, treatment interventions included, and types of health care professionals.2

This lack of MMA standardization and coordination has complicated wide incorporation of pain management MMAs into US health care systems, as have the high costs associated with multiple professionals and frequent contacts with patients (often daily). Most of these costs are not covered by health insurance, further limiting access. The lack of MMA standardization and coordination also impedes research examining the national use of MMAs. Numerous studies since the 1980s have examined the complexity of chronic pain management.3,4 In contrast, estimates of the use of nonpharmacologic approaches (NPAs) (eg, PT, occupational therapy, psychological interventions, and complementary interventions), as well as interventional approaches (eg, injections of corticosteroids, nerve blocks) are less available. Generally, studies have estimated the prevalence of individual interventions alone,4,5 but few studies have examined the concomitant use of pharmaceuticals and NPAs. For instance, Eisenberg et al,6 using data from a nationally representative telephone survey of adults, found that in 1990, 23.0% of survey participants saw both physicians and complementary health care professionals (eg, doctor of chiropractic, licensed acupuncturist, massage therapist) for back pain, which increased to 39.1% in 1997. Similarly, of those participating in a population-based mail survey in the UK who reported seeing a general practitioner for chronic pain, 49% also saw at least one other health care professional for their pain care (eg, complementary/integrative professional, PT, medical specialist).7 In addition, analyzing a random sample of Medicare beneficiaries with persistent musculoskeletal pain (>3 months), Karmali and colleagues8 found that 35% of those prescribed opioids for pain also used PT for the pain, and 3.3% also used mental health services. Taken together, these types of data suggest pain management MMAs are used by the public for chronic pain. However, these earlier studies provided little detail about (1) the care provided (eg, dose, frequency), (2) patient and clinician characteristics associated with the use of MMAs, (3) whether the MMA is initiated by the patient or clinician, and (4) the amount of communication between clinicians. Certainly, as described by the Institute of Medicine, National Pain Strategy, and Pain Management Best Practices Inter-Agency Task Force, communication between health care professionals is a central tenet of MMA pain management.

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Therefore, I read with anticipation the study by Pritchard and colleagues,9 which promised to present nationally representative trends over time in the concomitant use of opioids and NPAs. The authors, using data from the Medical Expenditure Panel Survey (MEPS), were able to identify whether participants used opioids for their pain, NPAs for this pain, both, or no treatment (ie, neither opioids nor NPAs).

The authors used the MEPS data set to stratify their sample by whether the participant had a recent surgery requiring anesthesia, which, theoretically, allowed the capture of postsurgical pain. Their findings support and expand on the existing epidemiologic literature on the use of MMAs for pain management. The authors found that approximately 19% of participants with pain reported use of opioids, and approximately 26% used an NPA. These data are similar to those seen by Vanneman and colleagues10 and Feldman and Nahin.5 Pritchard and colleagues9 noted that 5.6% of all participants with pain reported using both opioids and NPA. Although this percentage is less than that seen by Vanneman, et al10 (15%), Pritchard and colleagues9 found higher concomitant use of opioids and NPAs in individuals with postsurgical pain (12.7%) vs those with nonsurgical pain (3.7%). Notably, although the postsurgical group saw a substantial increase in concomitant use of opioids and NPAs between 2011 and 2019, this increase was not seen in the nonsurgical group. A limitation is that the authors did not (1) comment on nonopioid pain medications, (2) capture all of the behavioral and complementary approaches in use or any interventional approaches, and (3) provide physician characteristics, such as medical specialty, included in MEPS. Thus, their study underestimates the breadth of MMA pain care.

Although the authors did not discuss them, their data in Tables 3 and 4 suggest disparities in the concomitant use of opioids and NPAs, with members of racial and ethnic minority groups, those living at or near the poverty line, and those with less education being less likely to use the combined approach. Many factors might be associated with these disparities including past experiences, familial factors, comorbidities, cultural background, psychological and environmental factors, access to health care, and discrimination. These factors should be evaluated both using the MEPS data and replicating them in other data sets.

The findings of Pritchard et al9 are a step toward our understanding of the extent to which pain management MMAs are used by US adults. More complete analyses using MEPS and other nationally representative data sets will provide a clearer picture of MMA use and help guide future federal funding initiatives, such as the recent National Institutes of Health HEAL Initiative: Coordinated Approaches to Pain Care in Health Care Systems.

ARTICLE INFORMATION
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REFERENCES


