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Healthcare for Chronic Pain: Overuse, Underuse, and Treatment Needs:

Commentary on: Chronic Pain and Health Services Utilization – Is there overuse of diagnostic tests and inequalities in non-pharmacologic methods utilization?

Michael Von Korff, ScD¹

¹Group Health Research Institute, Seattle, Washington

In 2011, the Institute of Medicine (IOM) reported that over 100 million Americans are affected by chronic pain, costing the nation up to \$635 billion each year in healthcare and lost productivity costs.(1) This thoughtful and timely report concluded that, “Healthcare providers should increasingly aim at tailoring pain care to each person’s experience, and self-management of pain should be promoted.” The IOM report also observed that, “Health care organizations should take the lead in developing innovative approaches and materials to coach and empower patients in self-management.” Certainly, self-management is of fundamental importance for a condition affecting four persons out of ten.

The IOM estimate of 100 million Americans affected by chronic pain has since been cited by others who have implied that this represents the number of people needing medical treatment for chronic pain. For example, a member of the IOM panel used this estimate when arguing that “there is a moral imperative to treat pain.”(2)

While 100 million is an eye-catching number, this number was derived by the IOM from prevalence rate estimates for the United States from the World Mental Health Surveys in which respondents from diverse developed and developing countries were asked whether they had chronic back or neck pain, frequent *or* severe headaches, arthritis or joint pain, or some other chronic pain condition *in the prior 12 months*.(3) The intent of the World Mental Health Survey analyses was to compare the prevalence of common chronic pain conditions in different countries, not to estimate the percent of the population who might need medical treatment for chronic pain. In the World Mental Health Surveys report, moderate to severe chronic pain was not differentiated from mild chronic pain.

Is there a moral imperative for health care professionals to treat all persons with chronic pain irrespective of its severity or of the potential benefits from therapeutic interventions? I think not. While safe, evidence-based and compassionate care of all persons seeking treatment for chronic pain is an ethical duty, a moral imperative for *treatment* is based in the potential for treatment benefits to exceed harms and costs. Human suffering alone does not confer a moral imperative for medical intervention. When loosely applied to a wide range of human maladies, irrespective of the benefits and safety of treatment options, the assumption that human suffering *per se* defines a moral imperative for medical intervention may contribute

Corresponding Author: Michael Von Korff, ScD, Group Health Research Institute, Seattle, WA, Phone: (206) 287-2874, Fax: (206) 287-2871, vonkorff.m@ghc.org.

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to unnecessary treatment accounting for 10 to 30% of U.S. healthcare costs, or \$250 to \$800 billion annually, and to an estimated 30,000 deaths per year from unnecessary medical interventions among Medicare beneficiaries (4, 5).

In this issue, a survey of the adult population of Portugal provides a refined understanding of the significance of chronic pain in the population-at-large, and how it is cared for. (Editor: Provide reference for article) The overall estimate of chronic pain prevalence (37%) is similar to that used by the IOM report on chronic pain, and to chronic pain prevalence estimates observed in other countries world-wide. (3) But, this report clarified the overall estimate of chronic pain prevalence by differentiating the 11% of the adult population with moderate to severe chronic pain from the 26% with less severe chronic pain. In other words, roughly two-thirds of those with chronic pain in this study had relatively mild chronic pain conditions for which self-management is likely to be the safest and most cost-effective alternative.

A striking result of their research is the lack of pronounced differences in use of specific health care services comparing those with moderate to severe chronic pain to those with mild chronic pain. While there were modest differences in the percent utilizing specialists, there were not significant differences by severity in the percent seeking care from family physicians and physical therapists, and comparable percentages received various diagnostic tests including radiographs, magnetic resonance imaging, and ultra sound. Over three-quarters of those with mild chronic pain said that their pain problem was currently being managed by a health care professional. While the volume of use of services was higher for persons with more severe, persistent and disabling pain, and for persons who were more psychologically distressed, the extent of health care use for chronic pain among those with mild chronic pain was substantial. These results suggest chronic pain can compel treatment seeking across a wide range of severity. Unfortunately, well intentioned responses of health care professionals to patients seeking relief from chronic pain do not necessarily yield hoped-for benefits, and some patients are harmed by adverse effects of diagnostic tests, procedures and medications used to manage chronic pain (6, 7).

The Portuguese National Health Service employs global budgets and capitated reimbursement for its primary care clinics, with salaried primary care physicians. But, this is combined with private services that allow physicians to supplement their salaries by providing care on a fee-for-service basis. (8) It would be of interest to know whether the high rates of diagnostic testing for chronic pain reported for the Portuguese population were largely confined to fee-for-service care, or reflect broader practice norms cutting across capitated and fee-for-service care. Financial incentives and regulation of health care services may have important effects on the safety and effectiveness of chronic pain care, as well as implications for costs. For example, the use of opioid analgesics by persons with chronic pain in Portugal appeared substantially lower than in the United States. In Portugal, the number and location of pharmacies is more tightly regulated than in the United States, and pharmaceutical marketing practices to physicians and patients also differ. In Portugal, tiered pharmacy benefits have low co-payments for medications deemed clinically effective, but high co-payments (up to 95%) for medications not deemed cost-effective. (8) Rather than speculating about whether United States physicians are over-prescribing opioids for chronic musculoskeletal pain, or Portuguese physicians are under-prescribing, cross-national comparative effectiveness research might shed light on whether pronounced differences in long-term exposure to opioid analgesics is associated with differences in pain and functional outcomes, differences in rates of opioid addiction and overdose, as well as differences in costs of chronic pain care.

By adequately differentiating the level of severity and impact of chronic pain (moderate to severe versus mild), this report sheds light on a dilemma facing health care services in developed countries world-wide. People suffering from persistent pain are likely to seek health care in hopes that their pain will be explained and relieved. Health care professionals respond to their patients' presenting pain conditions by ordering a panoply of diagnostic tests, and providing pharmacologic and non-pharmacologic treatments. The aggregate costs of this care are substantial, but whether the best interests of patients are served remains unclear. In the complex interplay between patient hopes and expectations, health care norms influencing how chronic pain is managed, and financial incentives and disincentives that shape care, the Institute of Medicine's call for promoting self-management of chronic pain too often falls by the way-side. Self-management is not a panacea, nor is telling a patient to 'learn to live with their pain' an adequate response to suffering imposed by chronic pain that can undermine patients' well-being and abilities to fulfill work and family responsibilities. However, the ethical duty to provide safe, effective and compassionate care for chronic pain is not equivalent to a moral imperative to provide medical treatment whose safety, benefits and cost-effectiveness have not been adequately established.

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