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Commentary

Midlife Women and the Opioid Crisis: Commentary on the Role of Integrative Health

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Midlife women are experiencing increased rates of opioid use disorder (OUD) [1] and fatal overdose in the United States (US) [2]. Rates of opioid-related mortality have increased more rapidly among women than men [3], and when stratified by age, the increase in opioid-related mortality is particularly notable among middle-aged women [4]. Unique risk factors for opioid misuse and opioid use disorder (OUD) in women have been identified, including higher pain levels and increased opioid withdrawal symptoms [5] among women with OUD and higher rates of psychological comorbidities [6,7]. In addition, midlife women with co-occurring chronic pain and menopausal symptoms experience increased rates of risky opioid use including long-term opioid use, high-dose opioid use, and co-prescription of CNS-depressants and opioids [8]. Thus, addressing pain, menopausal symptoms, and psychological comorbidities may help reduce rates of OUD and ultimately prevent fatal overdose among midlife women.

Complementary therapies (e.g., acupuncture, massage, and mindfulness) and an integrative approach to care (e.g., relationship-based, patient-centered, strengths-based coaching) are ideally poised to treat OUD and associated comorbidities [9]. As women utilize healthcare in greater rates than men [10], including complementary therapies, it seems plausible that the integration of IH modalities may improve women's outcomes. Of particular interest is the evidence supporting acupuncture as a modality that may decrease psychological distress and therefore reduce OUD and the potential for overdose in women [11]. This brief commentary will provide an overview of the topic of midlife women and OUD, describe the relevance of complementary therapies and a person-centered, relationship-based approach to treatment, and provide suggestions relevant to future policy initiatives and research.

Compared to men, women experience more pain-related disease, have an increased sensitivity to pain [12], are more likely to be prescribed opioids [13], are more likely to "telescope" from use to misuse and first admission to treatment [1], and are at greater risk than men for the misuse of prescription opioid medications and thus for the development of OUD. Sex and gender differences occur in opioid risk and risk mitigation: rates of heroin use have increased at a faster rate while rates of nonmedical prescription opioid use have declined at a slower rate among women compared to men [14]. Women have also seen a sharper increase in opioid-related mortality than men [3]. Between 1999 and 2010, mortality rates increased by 400% for women and 237% for men [3]. Among persons with OUD, women experience a greater risk of mortality compared to the general population (SMR 5.1 95% CI: 4.5, 5.7) than men (SMR 4.3 95% CI: 4.0, 4.6), with an 18% increased risk of death among women compared to men (RR 1.18, 95% CI 1.02–1.36) [2]. When stratified by age, the increase in opioid-related mortality is particularly notable among middle-aged women; between 1999 and 2017, fatal opioid overdose rates increased by 485% among women aged 30–64 years [4]. Thus, identifying novel ways to promote health and prevent OUD among midlife women is critical.

Psychological and emotional distress have been identified as risk factors for OUD among women but not among men [15]. Research indicates that OUD is associated with intimate partner violence victimization, particularly among women, and that women may be particularly susceptible to such violence when under the influence of opioids [16]. Further, opioid-dependent women are more likely than their male counterparts to report higher levels of psychiatric morbidity (e.g., depression and anxiety), to use opioids in response to interpersonal stress, and to use opioids because of affective distress [6,7,15]. Post traumatic stress disorder (PTSD) is more strongly associated with opioid misuse and OUD among women than men. Of note, the desire to avoid symptoms of PTSD has been associated with higher odds of opioid misuse and OUD among women [17].

An integrative approach to care is uniquely situated to address the complex biopsychosocial aspects that fuel the chronic pain syndrome as well as provides care that is situated in a feminist praxis that values mutuality, growth and nurturance, shared power, reciprocity, and individualism. Integrative healthcare (IH) "reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing." [18] IH includes both conventional or biomedical interventions (provided by physicians, nurses, pharmacists and others) as well as complementary therapies provided by credentialed therapists (i.e., naturopaths, herbalists, acupuncture/Traditional Chinese Medicine practitioners, and massage therapists). In an integrative health approach, plans to address pain would be developed collaboratively

and tailored to address whole person (body-mind-spirit) condition, available resources (financial, material, human), and their values/goals. Rather than treating all chronic pain as similar and all clients seeking care as identical, the integrative approach listens deeply to the woman's story, ensures that the authentic full voice of the person is heard, considers all aspects of the pain experience (benefits as well as limitations) and seeking solutions that are informed by evidence but selected in a manner that affirms the woman's life purpose and values [19]. Therefore, rather than prescribing an opioid to address chronic pain, an integrative approach might include a complex intervention that includes progressive meditative movement (yoga or tai chi), nutritional changes (anti-inflammatory diet), and acupuncture that would address the complex mind-body mechanism associated with chronic pain [20].

Complementary therapies such as acupuncture, massage therapy, and mindfulness have been found to reduce OUD and associated comorbidities. Acupuncture has been evaluated for the treatment of pain and reduction of OUD in several studies. A meta-analysis was conducted across nine studies and acupuncture and electro-acupuncture were each more beneficial than sham acupuncture for the reduction of cravings for opioids and for the improvement of insomnia and depression [21]. Preliminary evidence suggests that acupuncture may also be beneficial in decreasing opioid dose and increasing opioid abstinence when combined with medication-assisted treatment (MAT) [22]. Further, acupuncture may offer decreased odds of opioid initiation. Compared to visiting a primary care provider, individuals with new-onset low back pain who visit an acupuncturist first demonstrate 91% decreased odds of short-term opioid use (95%CI 0.07 to 0.12) and 95% decreased odds of long-term opioid use (0.07, 95%CI 0.01 to 0.48) [23]. Mindful Awareness Body-oriented Therapy (MABT) has also demonstrated preliminary feasibility and acceptability when provided as an adjunct to MAT for those with OUD and has demonstrated decreased craving among women previously diagnosed with substance use disorder [24]. Additionally, Mindfulness Oriented Recovery Enhancement (MORE) reduces opioid craving among individuals with OUD taking MAT [25], and increases positive psychological health, as well [26].

Multiple large-scale surveys of complementary and alternative medicine (CAM) [1] use in the United States (US) have been conducted, including data from the 2002, 2007, and 2012 Adult Alternative Medicine supplement to the National Health Interview Surveys [27]. Among US adults, "the prevalence of CAM use in the past 12 months" ranged from 32.3% in 2002 to 35.5% in 2007 and was most recently 33.2% in 2012. Among women seeking acupuncture, for example, nationwide prevalence is low (1.1%); however that translates to over one million American women. In addition to seeking IH services from a provider, women are utilizing IH independently. For example, women in the US are already practicing meditation more than men and presence of pain, anxiety/depression, and sleeping problems are some of the main factors that predict meditation use [28]. This indicates that IH is not only acceptable to women but also sought-after by those who have some of the very issues associated with opioid misuse and OUD among midlife women.

Since IH interventions such as acupuncture, MABT and MORE are promising in the treatment of OUD and associated comorbidities and since women are utilizing complementary therapies, it would seem beneficial to women for healthcare policy to support women's affordable access to complementary therapies. Suggestions regarding policy include the provision of healthcare benefit coverage of complementary therapies, however the most recent data (from 2012) indicate that only a minority of people in the US have health insurance coverage for complementary therapies such as acupuncture (20% of respondents reported at least partial coverage) and massage (15%) [29]. Because research findings regarding complementary therapies are likely to inform policy changes, additional research is needed to clarify the combined benefits of complementary therapies on pain, mental health conditions, and other symptoms on opioid use and concurrent use of medications such as benzodiazepines for anxiety, which are associated with higher rates of fatal opioid overdose. Further, additional studies of complementary therapies efficacy and effectiveness to reduce rates of OUD and associated comorbidities are needed to then translate those findings to real-world effectiveness studies. We encourage future work in these directions that might result in improved outcomes for women with OUD.

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1 "CAM" is a term that was previously used to identify interventions such as acupuncture, massage, and mindfulness and the commonly used term now is "complementary therapies."

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