The Agency for Healthcare Research and Quality draft Systematic Review for Noninvasive, Nonpharmacological Treatment for Chronic Pain

Comments from the American Academy of Pain Medicine

The American Academy of Pain Medicine supports the AHRQ’s efforts to review and evaluate the effectiveness of noninvasive, nonpharmacologic treatments for many common chronic pain states. We acknowledge the tremendous amount of work that was required to prepare this extremely thorough and rigorous report. We thank you for the opportunity to provide feedback and offer a constructive critique for your consideration.

General comments:

- We would initially point out that the stated title of the review is overly broad, and could be qualified by the types of "non-pharmacological" treatments undergoing review, namely psychological/physical therapy/rehabilitative. We suggest acknowledgement that of "non-pharmacological" treatments for pain, many of the techniques employed by pain specialists, for example spinal cord stimulation and radiofrequency ablation, were not included in the review, and that non-inclusion in this review does not imply these treatments are less useful or important considerations in the "non-pharmacological" category of pain management.

- The goals of this report were ambitious and important, and the conclusions, although not surprising, once again confirm that much of what is done in medicine is not supported by robust literature, unfortunately. We have concerns, given the limitations of the literature, that this report itself has significant limitations and that the conclusions should be tempered.

- Due to the scope of the work, it is very dense reading which makes it very difficult to read the data sections. Nevertheless, the tables are well laid out and easy to find details if so inclined. The figures and the summary tables in the discussion section are excellent. In addition to publishing the full document, we would like to see an accompanying “Executive Summary” (with key points, the meta-analysis figures, and summary tables with their discussion section). It would be much easier to find clinically useful summary information than it is in the full document.
• Regarding RCTs and psychobehavioral treatments; two commonly overlooked factors are patient preferences and therapeutic alliance.
  
  o **Patient Preferences.** Treatment outcomes may be diminished by failing to include a key patient participant variable: treatment preference. If patient did not wish to be assigned to CBT and was hoping to get MBSR, it may not be surprising when treatment adherence rates are low. A literature exists on the importance of “equipoise” considerations in RCTs (e.g., https://www.ncbi.nlm.nih.gov/pubmed/11720698; Lavori, Rush et al, Biol Psychiatry 2001). This may be a point for the authors to consider in the conclusions and recommendations for future research.

  o **Therapeutic Alliance.** Similarly, recent research suggests that the therapeutic alliance is a critical variable in psychosocial treatment outcomes, and it could explain a portion of the variance seen between studies conducted in similar populations using the same protocols. (e.g., https://www.ncbi.nlm.nih.gov/pubmed/25119513 Burns, Neilson, Jensen, Heapy, Czlapinski, Kerns. “Does change occur for the reasons we think it does? A test of specific therapeutic operations during cognitive behavioral treatment for chronic pain.” Clin J Pain 2015). Again, perhaps salient points of consideration that add texture to our understanding that these behavioral treatments involve dynamic psychosocial interactions that deeply impact ongoing treatment across weeks and months.

• **Treatment Responders.** An overemphasis on general effects harms our overall understanding regarding a fundamental question: For whom do these treatments work best? No single treatment is right for everyone. With this publication, an opportunity exists to encourage researchers to better characterize treatment responders and non-responders so that clinicians can be provided with the evidence as to which treatments will be most effective for each patient and thereby improving cost effectiveness. With this information in hand, clinicians could focus on phenotyping and evidence-based treatments that are optimal for each patient, supported by their individual characteristics, preferences and the available treatment choices.

• **Methodology.** As with most reviews that result in guidelines, the randomized controlled trial study is used as the gold standard. This approach is typical in much of medical research. It should be noted that questions have been raised as to whether RCTs should be considered the “gold standard” in all research situations as it is not necessarily the most valid or reliable way to assess outcomes in all situations. This is especially true as it relates to psychotherapy outcomes. Many of the studies, as noted in the AHRQ review, are of poor quality and do not report important information about this very mixed population, which unfortunately makes generalizability very difficult. Large data sources (“big data”), in the form of data registries, are becoming one way to supplement RCTs while still producing reliable, valid and relevant results. If data registry information is available pertaining to the topics reviewed, that data should be at least considered for inclusion.

• Many of these treatments are often delivered concurrently rather than sequentially in clinical practice. The authors may want to note that future research may wish to focus on what combinations of treatments are appropriate, for which patients, and in which order.
• We note that Yoga was not included as a treatment in the Fibromyalgia section. We would draw the author’s attention to the studies of Carson, JW and Langhorst, J (Rhumatol Int 2013). These studies are RCTs (perhaps they did not meet inclusion criteria?).

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The American Academy of Pain Medicine is the premier medical association for pain physicians and their treatment teams with some 2,000 members. Now in its 34th year of service, the Academy’s mission is to optimize the health of patients in pain and eliminate pain as a major public health problem by advancing the practice and specialty of pain medicine through education, training, advocacy and research. Information is available on the Academy’s website at www.painmed.org.

Submitted December 23, 2017