

# Results of a Scoping Review of Integrative Medicine Interventions in Under-resourced Populations in the United States

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## Introduction

The Academic Collaborative for Integrative Health (ACIH) supports activities and projects in education, clinical care, research and policy that are transforming our health care system into one that creates health and well-being.

One core value expressed by ACIH is "...equitable access to patient-centered integrative care without regard to race, gender, identity, socio-economic status, sexual orientation or religion."

Although integrative care is widely recognized as providing value to patients, especially those facing disparities and poor access to either resources or services, the extent to which this has been captured by scientific inquiry and thus represented in the medical literature is indistinct. This gap may be hampering healthcare delivery, or policy decisions due to ambiguity and an imprecise mapping of the evidence.

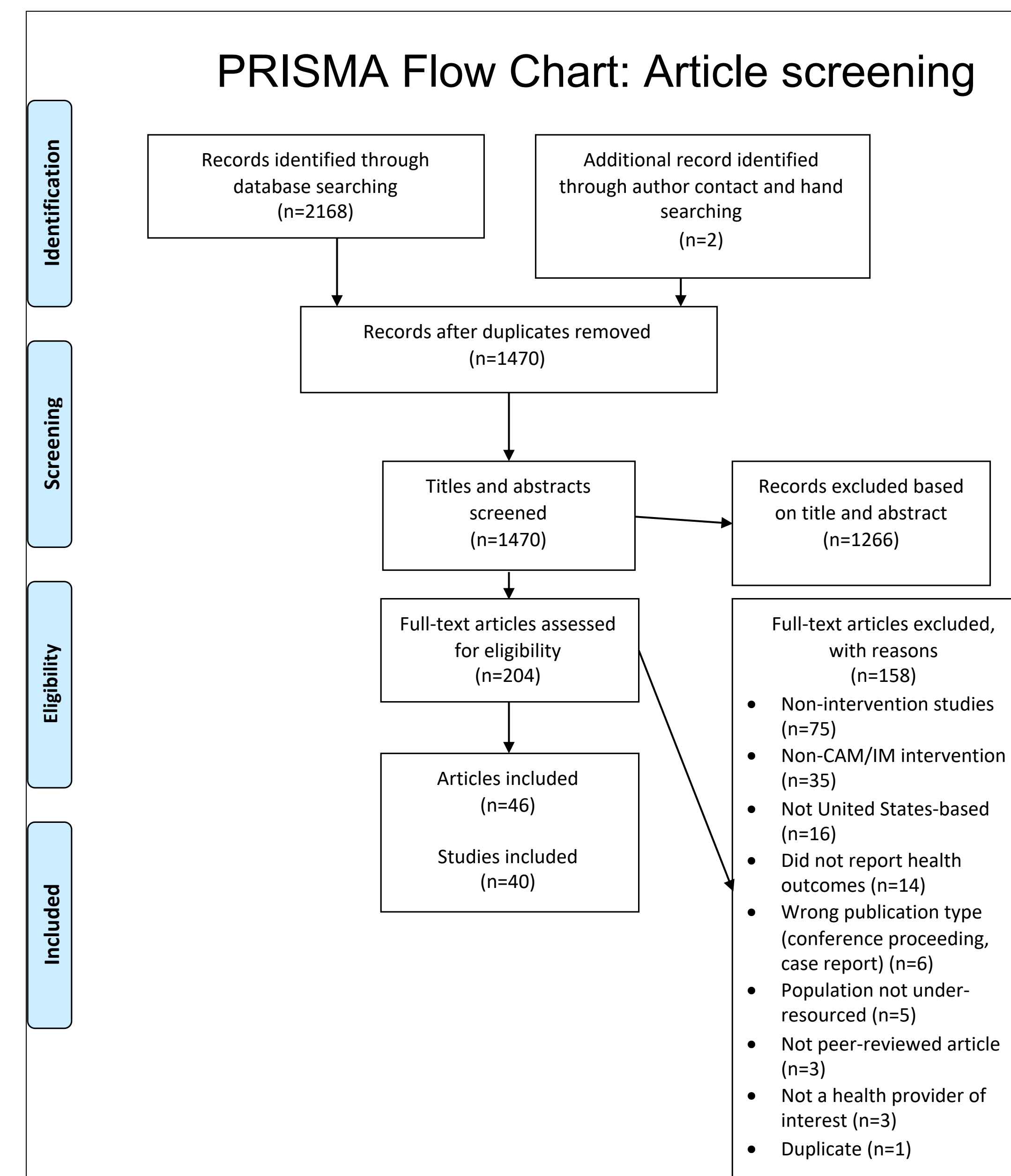
In order to address this issue, our objective was to summarize and critically appraise the available evidence on Integrative Medicine (IM) practices in under-resourced US populations and summarize data on outcomes.

## Methods

This **first-ever scoping review of IM clinical trials in underserved populations** in the United States, utilized a search strategy developed by a medical librarian. English language publications from Medline, EMBASE, PsycINFO, Alt HealthWatch, Web of Science, and Google Scholar were included and screened to capture intervention-based studies including health outcomes. **Population search terms** were: homeless, uninsured, native American, refugee, low income, poor, poverty, or underserved. **Intervention search terms** were Acupuncture, Oriental Medicine, Chinese medicine, Asian medicine, herbal medicine, chiropractic, massage therapy, naturopathic medicine, naturopathy, complementary medicine, alternative medicine, integrative medicine, integrative health, yoga, yoga therapy, ayurvedic medicine, Ayurveda, homeopathy, certified professional midwives, and direct-entry midwives.

Abstract and full-text **data were extracted** by paired independent authors and included: IM paradigms and components; study designs and methodology; controls; population; intervention and setting descriptors; modes of delivery; training of intervention providers; health outcomes; study funding; and innovative study features. **Thematic analysis of qualitative data** was also conducted. Discrepancies were resolved through consensus by full author team. **Risk of bias was assessed** using the Mixed Methods Appraisal Tool (MMAT).

## Results

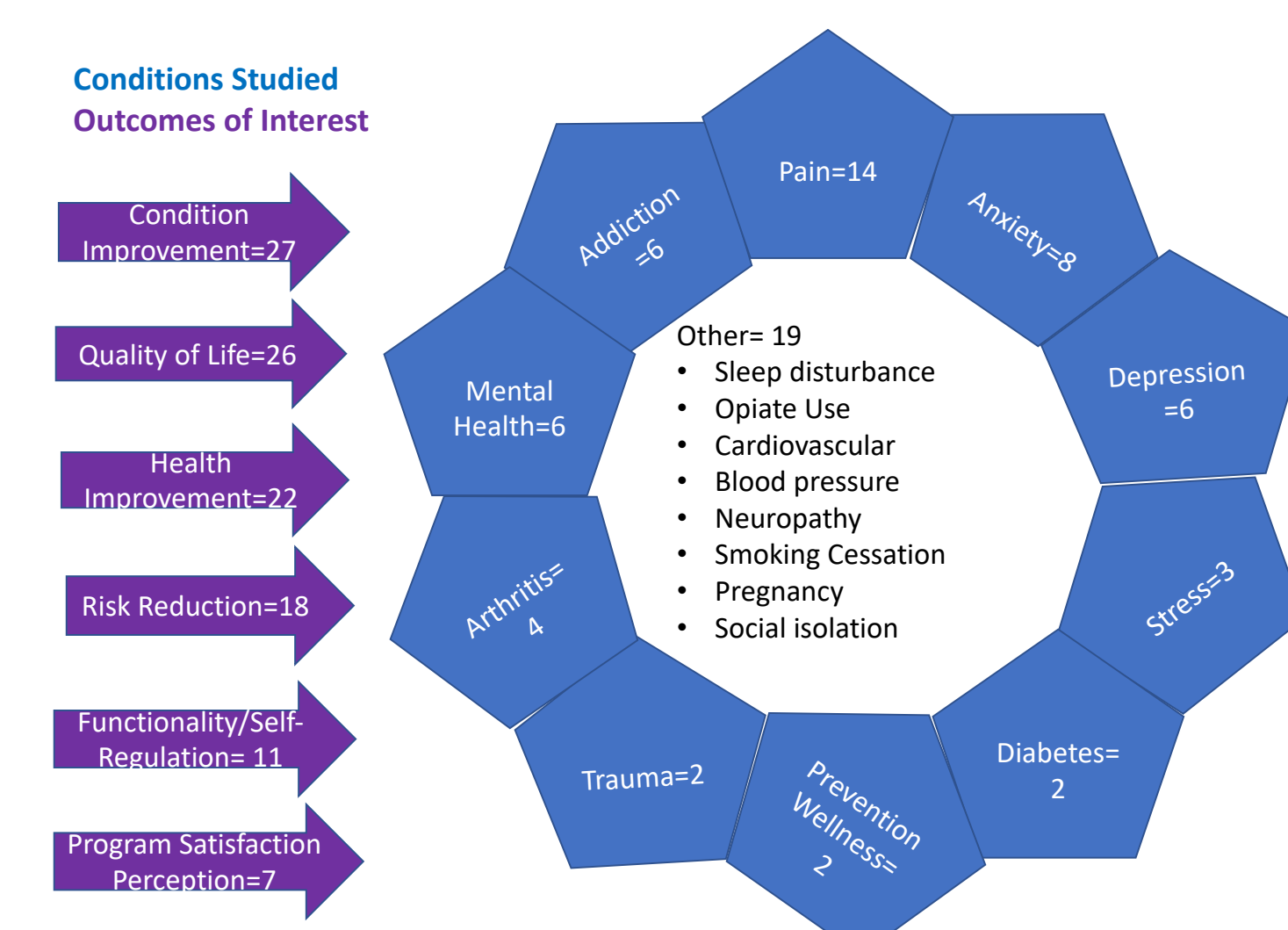
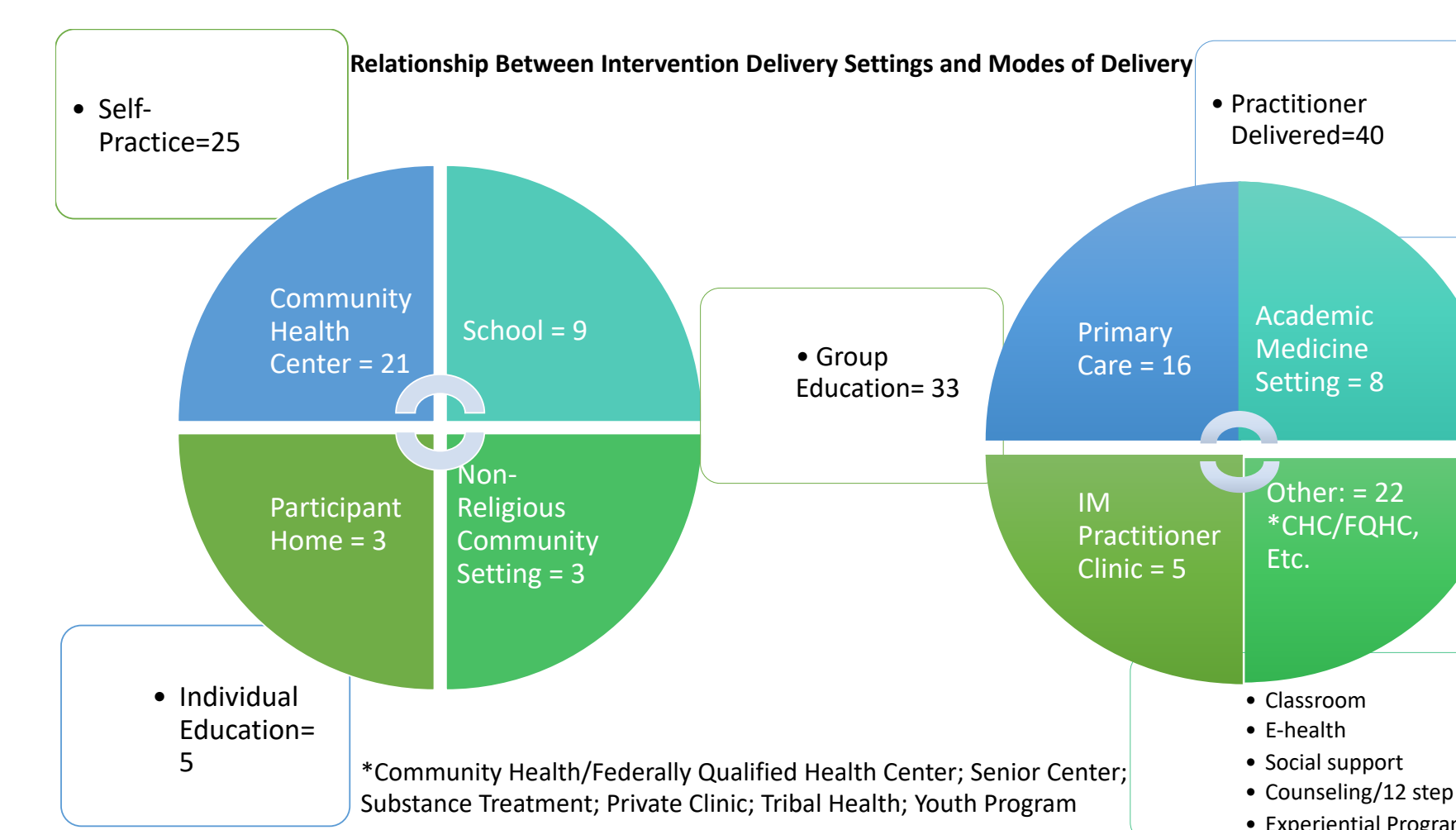


### Risk of bias

Overall MMAT scores were moderate, reflecting relatively low risk of bias across the population of studies included. Where bias was identified, it was largely consistent with study design features commonly understood to be difficult for IM interventions such as participant blinding to the intervention. Many studies did not mention use of reporting guidelines (e.g. CONSORT) which may reflect year of publication pre-dating these guidelines or a lack of established reporting expectations for some IM interventions.

Search revealed that IM intervention research with under-resourced populations published to date represents the following **paradigms**: 17 unique projects for yoga; 9 projects utilizing integrative medicine/complex multimodal interventions; 8 on Traditional Chinese Medicine and 5 involving either massage, midwifery or naturopathic medicine.

Community health and primary care were most prevalent for **delivery intervention settings**. Modes of delivery most frequently represented included: Practitioner-delivered; Group education; and Self-practice, with some overlap across categories.



Most frequent **outcomes of interest** were: mental health; condition improvement, quality of life, overall health improvement and stress/resilience. A variety of conditions were investigated, with pain, anxiety, depression, addiction and overall mental health most predominant.

## Discussion

**46 articles through early 2020 were identified and included.** 40 unique research projects and 6 research projects had 2 to 3 papers. Findings demonstrate that research in low-under-resourced populations should explore all social precursors of disease and a cascade effect, in which co-occurring vulnerabilities create fertile soil for both chronic and acute conditions. Data show relationships between social precursors and poor diet, lifestyle and habits that exacerbate poor mental health and substance use, contributing to lower overall quality of life. Structural inequalities, discrimination and lack of social support play major roles in the health status of the populations studied.

## Conclusion

Data show that IM interventions are being implemented in 2 populations of interest with specific foci: 1) Magnifying **prevention and risk reduction strengths of IM paradigms for youth**, and 2) Targeted **treatment of lifestyle-related chronic conditions in adults** >= 45 years. The data draw attention to advantages and benefits of multimodal interventions for conditions that are multivariate in nature. **Innovative features of IM study designs** focus on: empowerment; attentional control; self-regulation; self-compassion; resilience; improved self-efficacy. Intervention modalities highlight movement therapy and self-care skills.

## Disclosure

This paper developed from discussions among members of the Research Working Group of ACIH. ACIH represents 18 national integrative health and medicine organizations, many universities, colleges and programs and has a wide variety of supporters and volunteers. This project is a cross-disciplinary collaborative initiative of ACIH members.

## References

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