**Submission Id: 2679** 

## **Title**

Integrating Behavioral Health & Primary Care for multiple chronic diseases: clinical trial of a practice redesign toolkit

## **Priority 1 (Research Category)**

Behavioral, psychosocial, and mental illness

## **Presenters**

Benjamin Littenberg, MD, Paula Reynolds, Lisa Natkin, PhD, Constance van Eeghen, DrPH, MHSA, Peter Callas, PhD, Wilson Pace, MD, FAAFP, Gail Rose, PhD, Juvena Hitt, MPH, Abigail Crocker, PhD, , Daniel Mullin, PsyD, Laura-Mae Baldwin, MD, MPH, Levi Bonnell, MPH, PhD Candidate, Elizabeth Waddell, PhD, MA, Richard Pinckney, Sylvie Frisbie, BSc, Brenda Mollis, MA, MPA, MPH, C.R. Macchi, PhD, Zsolt Nagykaldi, PhD, Kathryn Teng, MD, MBA, Kurt Stange, MD, PhD, Jennifer O'Rourke-Lavoie, BS, Kari Stephens, PhD, William Sieber, PhD, Jennifer Jewiss, EdD, Sarah Scholle, Lauren Eidt Pearson, MSW, LICSW, George Leibowitz, PhD, LICSW, Ryan Breshears, PhD, Jessica Clifton, PhD, Roger Kathol, MD, Terry Stancin, PhD, ABPP, Mark McGovern, Mary Hekman, Douglas Pomeroy

## **Abstract**

Context: Most patients in need of behavioral health (BH) care are seen in primary care, which often has difficulty responding. Some practices integrate behavioral health care (IBH), with medical and BH providers at the same location, working as a team. However, it is difficult to achieve high levels of integration. Objective: Test the effectiveness of a practice intervention designed to increase BH integration. Study Design: Pragmatic, cluster-randomized controlled trial. Setting: 43 primary care practices with on-site BH services in 13 states. Population: 2,460 adults with multiple chronic medical and behavioral conditions. Intervention: 24-month practice change process including an online curriculum, a practice redesign and implementation workbook, remote quality improvement coaching services, and an online learning community. Outcomes: Primary outcomes were changes in the 8 Patient-Reported Outcomes Measurement Information System (PROMIS-29) domain scores. Secondary outcomes were changes in medication adherence, self-reported healthcare utilization, time lost due to disability, cardiovascular capacity, patient centeredness, provider empathy, and several condition-specific measures. A sample of practice staff completed the Practice Integration Profile at each time point to estimate the degree of BH integration in that site. Practice-level case studies estimated the typical costs of implementing the intervention. Results: The intervention had no significant effect on any

of the primary or secondary outcomes. Subgroup analyses showed no convincing patterns of effect in any populations. COVID-19 was apparently not a moderating influence of the effect of the intervention on outcomes. The intervention had a modest effect on the degree of practice integration, reaching statistical significance in the Workflow domain. The median cost of the intervention was \$18,204 per practice. In post-hoc analysis, level of BH integration was associated with improved patient outcomes independent of the intervention, both at baseline and longitudinally. Conclusions: The specific intervention tested in this study was inexpensive, but had only a small impact on the degree of BH integration, and none on patient outcomes. However, practices that had more integration at baseline had better patient outcomes, independent of the intervention. Although this particular intervention was ineffective, IBH remains an attractive strategy for improving patient outcomes.