

## THE RELATIONSHIP BETWEEN COORDINATION TOOL USE AND HEALTHCARE QUALITY

**Lead Author:** Houston F. Lester, Ph.D.

**Contributing Authors:** Dr. Aanand D. Naik, Dr. Lechauncy D. Woodard, Dr. Laura A. Petersen, Dr. Christiane Spitzmueller, Dr. Sylvia J. Hysong

**Category:** Quality, Cost, Value

### Background

Clinical care team coordination is vital to improving healthcare quality (Hysong et al., 2016). Consequently, numerous tools (e.g., displays) have been developed to facilitate coordination amongst clinicians. Tool utilization varies for many reasons (e.g., preference or mandate); however, implementing the right coordination tools is important. The tools can be costly, and the relationship between coordination tool use and healthcare quality with veterans in primary care settings is unknown.

### Objectives

This study assesses which coordination tools available to primary care teams facilitate quality care along four clinical domains: Behavioral Health, Ischemic Heart Disease, Diabetes Mellitus, and Prevention.

### Methods

We invited members of 2100 existing primary care teamlets (provider, nurse care manager, LVN/LPN, clerk) at 157 VA Medical Centers nationwide to complete a web-based survey of coordination practices, including use of 6 coordination tools (e.g., Primary Care Almanac (PCA) and Patient Care Assessment System, PCAS). We obtained team-level outpatient clinical performance data covering fiscal year 2016 from existing VA data sources: Electronic Quality Measures and Corporate Data Warehouse. We calculated descriptive statistics and bivariate correlations; mediation analyses using structural equation modeling are ongoing.

### Results

Of 8284 teamlet members invited, 3405 responded (41%). The diverse sample represents primary care teams housed at 677 VA facilities to include 157 VA Medical Centers (41% of respondents), 20 Health-Care Systems (6% of respondents), 319 Primary Care CBOCs (29% of respondents), and 169 Multi-Specialty CBOCs (24% of respondents). The largest differences in tool utilization were between the PCA (64% of respondents reported using it) and the PCAS (44% of respondents use it),  $\chi^2(1) = 6.68$ ,  $p < .05$ . Preliminary bivariate correlations between coordination tools and care quality indicate that although statistically significant, their magnitude is small; the largest correlation was  $r(1064) = .11$ ,  $p < .05$ . Ongoing analyses (to be completed before the symposium) examine mediation (MacKinnon, 2008) and mediated moderation, (Preacher, Rucker, & Hayes, 2007) as possible explanations for these small correlations.

### Discussion

From a mediation perspective, the zero-order correlations are total effects. Investigating the mediation and mediated moderation model (Figure 1) allows us to assess why they are small. For example, is the magnitude due to a lack of relationship between tool use and coordination practices, or is a combination of tools necessary to facilitate improved care? Our results will help facilities make more informed choices regarding coordination tools resulting in improved care quality and reduced spending.

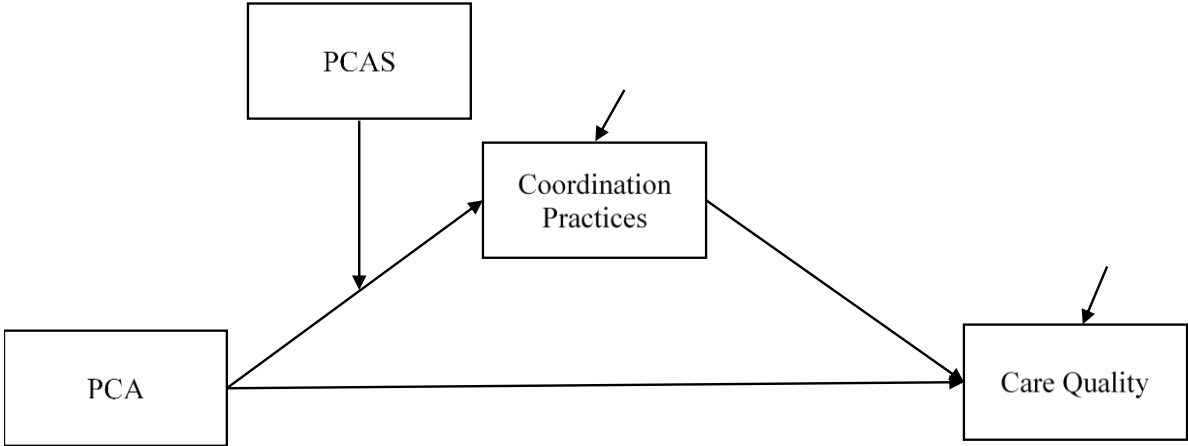


Figure 1. Hypothesized mediated moderation process.