Combining Qualitative Interviewing with Systems Science to Understand How Practice Facilitators Tailor Implementation Support to Context

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INTRODUCTION

A complex array of multi-level factors affect the ability of primary care clinics to integrate evidence-based practices into routine care. To effectively support clinics, practice facilitators--professionals trained to build the capacity of primary care practices and to support practice change--must accurately assess clinics' needs and identify corresponding implementation support strategies. Examining how this tailoring happens is key to evaluating program outcomes and maximizing program success. In this study, we examine practice facilitators' mental models of practice change using causal-loop diagramming, a method from systems science. Using causal-loop diagrams to represent qualitative data is an emerging method that has potential applications for research and evaluation.

SETTING

ANTECEDENT is one of six AHRQ-funded EvidenceNOW unhealthy alcohol use initiatives; it is a collaboration between the Oregon Rural Practice-based Research Network (ORPRN) and SBIRT Oregon (www.sbirtoregon.org) that is aligned with state's Medicaid transformation program. ANTECEDENT practice facilitators provide 15-months of tailored technical assistance and supportive services to primary care clinics so they can adopt or improve evidence-based methods of addressing unhealthy alcohol use through screening, brief intervention, and referral to treatment (SBIRT).

METHODS

To compare practice facilitators' mental models of practice change over time, we constructed a series of causal-loop diagrams from semi-structured qualitative interview data. To systematically generate causal-loop diagrams from qualitative data, we adapted a method from Kim and Anderson (2012), as outlined by Kenzie (2021). Steps include the following: 1) focusing the inquiry around research questions, 2) coding causal structures in ATLAS.ti and inserting comments to translate quotations to causal-loop notation, 3) sketching larger causal structures such as feedback loops, 4) creating a causal mapping table, and 5) visualizing with Kumu diagramming software. This method is being applied to biannual facilitator interviews.

Table 1. Translating qualitative data to a causal-loop diagram

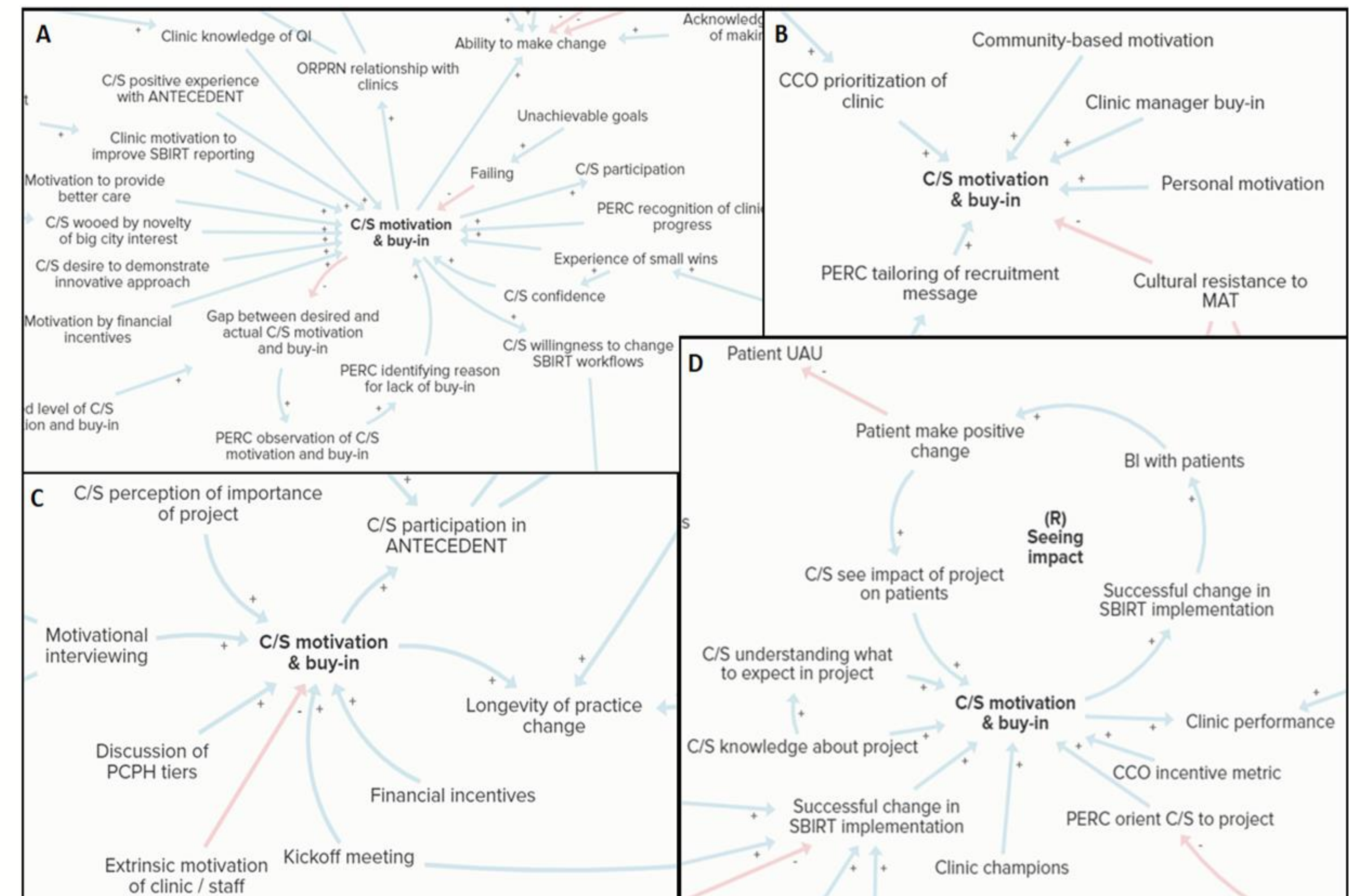|	
Quotation:	**Interviewer:** I'm wondering about change in the long-term. Not just signing up or making some changes initially, but what helps clinics be successful in the long-term and really make that sustainable? **Interviewee 5:** Well, not to sound like a broken record, but I think that having that buy-in is obviously really important and I think for the clinics to be able to see how this impacts their patients positively is really important. So, seeing some results, seeing the benefits of a patient that's been offered a brief intervention and takes that to heart and does decide to make some changes or do whatever is a good next step for them. I think that those are the aspects that might sustain that change and encourage the clinics. So, I think seeing those results is going to be a strong or a big motivator for the clinics in implementing the work and being motivated to sustain that.
Code:	Causal_feedback loops
Comment:	C/S buy-in building over time C/S see impact of project on patients —> C/S buy-in —> Successful change in long term SBIRT performance —> BI with patients —> patients make positive change —> C/S see impact . . . (reinforcing loop)
Diagram:	

Figure 1. Comparison of facilitator mental models of clinician and staff motivation and buy-in for an implementation science study. C/S = clinician and staff

RESULTS & CONCLUSION

Causal-loop diagrams produced with this method include similar concepts across facilitators (e.g., implementation strategies, motivation and buy-in of clinicians and staff, policy context, prior quality improvement experience, effective workflows). However, diagram configurations differed, indicating variation in mental models between practice facilitators. The number of feedback loops differed across participants, reflecting different amounts of causal information communicated in the interviews. Summative comparison and longitudinal analysis will be completed when the study concludes in 2023.

Causal-loop diagramming provides a way of gleaning insight from qualitative data that has not been widely applied in implementation science. This approach has promise for better understanding the mental models of practice facilitators as well as stakeholders.

REFERENCES

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