Implementation Science: Fidelity Monitoring Tools and Approaches for Patient Navigation Programs

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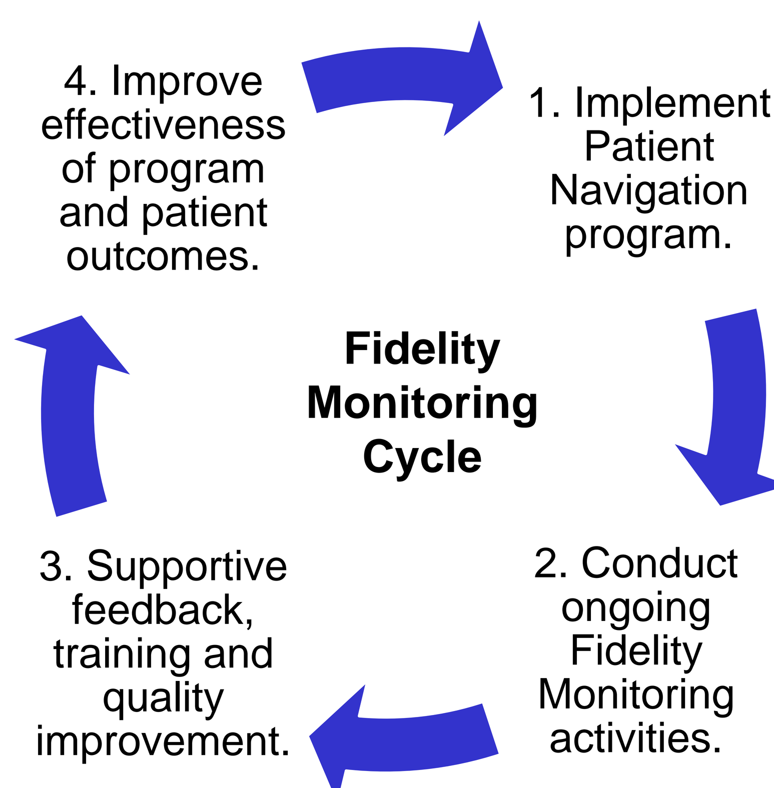
Background

- From 2011 to 2015, the Virginia Department of Health (VDH) developed, piloted, and expanded a Patient Navigation (PN) program to improve linkage, retention, and viral suppression rates among persons living with HIV (PLWH) at three sites in Virginia.
- The project aimed to move the evidence-based intervention into practice, which aligned the PN program with the goals of translational research.
- VDH observed variations in implementation of the model across the sites indicating a need to focus on implementation fidelity to ensure outcomes could be attributed to the intervention and the intervention could be replicated successfully.
- This poster shares two complementary approaches for monitoring implementation fidelity for PN programs.

Fidelity Monitoring

- Fidelity Monitoring (FM) is critical to evaluation and helps gauge what is working and where improvements are needed to achieve desired outcomes.[1]
- Research has found FM to be a process and that one size" does not fit all. Local context must be considered with implementation tailored to meet program needs.[2]
- Since 2013, VDH has worked with Virginia Commonwealth University (VCU) Institute for Drug and Alcohol Studies (IDAS) to implement a FM program to support the use of Motivational Interviewing (MI) within PN programs, an integral component of the PN program.
- To address other intervention delivery differences across sites, VDH developed a program-based FM Tool Kit to support consistent application of the PN model in practice.

Figure 1: Fidelity Monitoring Cycle



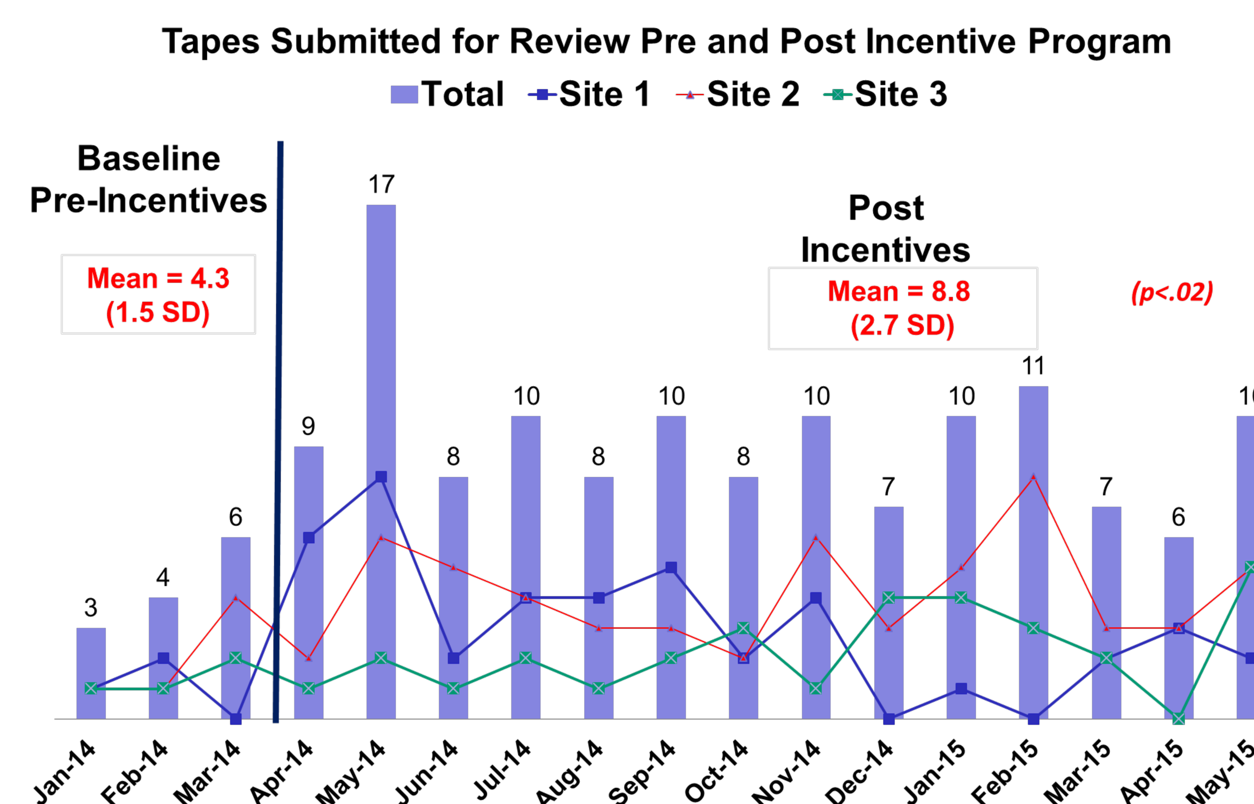
Approach 1: Fidelity Monitoring of Motivational Interviewing

- **Audio-taped client sessions:** PNs are asked to audio tape two patient sessions a month (with patient consent and IRB approval).
- **Standardized Coding.** Tapes are coded using the Motivational Interviewing Treatment Integrity (MITI) Coding instrument.[3] The MITI allows raters to provide structured feedback in the form of Behavior Counts and Global ratings.
- **Supportive Feedback.** PNs took part in group and individual monthly conference calls to provide supportive feedback, guidance, and make corrections early in the process.
- **PN Incentives.** To encourage PN participation in FM activities, a monthly incentive program was implemented offering PNs the opportunity to be entered into a random drawing for a gift card based on number of tapes submitted.

Results and Trends

- The incentive program has been successful, doubling the number of tapes submitted each month from 4.3 pre-incentives to 8.8 post-incentives ($p<.02$;); See Figure 2. However, sites varied in their response to the incentive program.
- A review of MI feedback to PNs during the incentive period found site differences in both strengths and areas for improvement:
  - Site 1: Good use of basic MI skills, but overly complex reflections, summaries and queries. Tendency to lapse into "expert" role.
  - Site 2: MI spirit evident at start of taped sessions; good use of MI skills; ongoing efforts to self-correct and improve skills as evident throughout (e.g., would change from closed to open question before client even had a chance to respond).
  - Site 3: Lowest level of engagement in FM; taped sessions of shorter duration than Sites 1-2; PNs frequently came off as the "experts", with premature focus and unsolicited advice.

Figure 2: Incentive Program Results



Approach 2: Program-Based Fidelity Monitoring Tool Kit

- The Tool Kit includes five newly designed tools to facilitate program-based monitoring of the core components of the PN program utilizing implementation science approaches in other fields.
- Methods and templates for conducting each activity are provided to guide programs through FM activities.
- Guidance on quantifying " fidelity levels" by calculating summary scores for each tool/component (Low, Medium, High) are designed to prompt follow up action and quality improvement activities.
- Program-based tools are designed to promote ownership, supportive feedback, collaboration, and quality improvement.

Fidelity Monitoring Tool Kit and Activities

Tool/Activity	Measurement Components	Method/ Data
Process Data Review Tool	Protocol Adherence: Content, Coverage, Exposure, Dosage	Process Data
Client Chart Review Tool	Quality of Delivery Protocol Adherence: Content, Coverage, Exposure, Dosage	Client Charts
Patient Navigator Survey	Quality of Delivery Protocol Adherence: Content, Coverage, Exposure, Dosage	Self-Report Surveys
Patient Survey	Quality of Delivery Participant Engagement	Patient Surveys
Training Review Tool	Training Components	Training Checklist

Fidelity ≠ Perfection: Measuring Implementation Fidelity

- Perfect implementation is neither realistic nor necessary and there may be diminishing returns on increasing fidelity.[4]
- General guidelines were used to create "fidelity levels" for each Tool Kit component based on the achievement of outcomes or inclusion of core components of the program.
- The three levels prompt *quality improvement* activities while allowing some flexibility in implementation.

<50% achievement [Low Fidelity]

50%-80% achievement [Medium Fidelity]

≥80% achievement [High Fidelity]

Lessons Learned and Findings

- **Fidelity Monitoring is Ongoing.** Public health programs should consider building FM activities into ongoing evaluation processes in order to facilitate consistent application of interventions and achievement of outcomes. Fidelity is critical to understanding the impact of the intervention.
- **Cost Savings Potential.** FM has the potential to save money and effort by identifying whether a program is being implemented as intended prior to a project's endpoint.
- **Mixed Methods.** Different methods of FM (audio-recorded observation, surveys, checklists, chart reviews) may provide an important balance in approach to monitoring fidelity.
- **Fidelity ≠ Perfection.** Fidelity does not require perfect implementation and the approaches presented here are designed to accommodate some flexibility and adaptation to local contexts to support a client-centered PN intervention.
- **Program Buy-in and Ownership.** Buy-in from programs is critical to ensure participation in FM activities.
- **Monitoring vs. Support.** It is critical to emphasize the supportive nature of FM when introducing it to programs.

Next Steps

- During the final year of evaluation under the SPNS project, VDH will pilot the FM Tool Kit in at least one site. The pilot process will inform the feasibility and acceptability of the Tool Kit as well as the process for assigning fidelity levels.
- VDH and IDAS will conduct a focus group of PLWH enrolled in a PN program to gain input and buy-in on the FM program focused on the use of audio-taped sessions.
- Areas for further research include:
  - Do programs who implement the PN intervention with greater fidelity produce better HIV outcomes among patients?
  - How much FM is necessary to produce desired outcomes?

Acknowledgments

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References

[1] Sorenson AV, Harrison MI, Kane HL et al., From research to practice: Factors affecting implementation of prospective targeted injury-detection systems. BMJ Qual Saf. 2011; 20:527-533.
[2] Taylor MJ, McNicholas C, Nicolay C et al., Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. BMJ Qual Saf. 2014; 23:290-298.
[3] Moyers T, Martin, T., Manuel, J, Miller, W, & Ernst, D. Revised global scales: Motivational Interviewing Treatment Integrity (MITI) v. 3.1.1. 2007; Retrieved from http://casaa.unm.edu/codinginst.html.
[4] Durlak J, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. American Journal of Community Psychology. 2008; 41:327-350.