Satisfying Your Inner Researcher Through Clinical Process Improvement

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What this webinar is about

- Tapping into that inner researcher to:
  - Improve care
  - Improve efficiency
  - Using basic research design, data, and statistics to make those improvements
  - Consider broader contributions based on research conducted in clinical settings

- Primarily informed by a VA perspective – application to your setting may vary.

- Bias: Empirical view of psychology; atheoretical with regard to treatment approaches.
What this webinar is not about

- Randomized clinical trials
- Grant writing
- Sophisticated statistics
- Preparing IRB submissions
- Large scale program evaluation projects
- Requesting protected research time
- Transformational coaching, lean six-sigma, PDSA, etc.
Basis: Psychology Training Models

- Practitioner – Scholar
- Practitioner – Scientist
- Scientist – Practitioner
- Clinical Science

Regardless of training model, courses in research design and statistics are a part of each training program.
Objectives

▪ Explain the difference between a process/quality improvement project and a research project.

▪ Use research principles to directly improve clinical practice.

▪ Describe a practice based research network.
Objectives

- Explain the difference between a process/quality improvement project and a research project.
  - Respecting those you serve
  - Keeping your IRB happy.

- Use research principles to directly improve clinical practice.
  - With individual patients
  - With all or specific groups of your patients
  - With your team or clinic

- Describe a practice based research network.
  - Should you decide to seek the Fame, Fortune, and Glory* that accompany the world of published research!

*Note: Attainment of Fame, Fortune, and Glory may vary.
Research vs. Quality Improvement

- Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. (VHA Directive 1200.05)

- Quality improvement (QI) is a systematic, formal approach to the analysis of practice performance and efforts to improve performance. (American Academy of Family Physicians)
Using Your Inner Researcher to Improve Care One Patient at a Time

- Clinical practice is often very busy
- And yet every person we serve can teach us something new
- Tap into your Inner Researcher to benefit the patient and you.

- Single-subject designs
  - A-B design (consider length of baseline)
  - Decide what you want to follow
  - Follow it!
  - Take the time to analyze and reflect
  - Apply your findings
Using Your Inner Researcher to Improve Care One Patient at a Time

Decide what you want to follow

- Be systematic in your observations
- Use of measures (measurement based care)
  - Symptom focused
  - Functional
  - Relational
- Be creative
  - Time of day
  - Lighting
  - Informal conversation prior to "digging in"
- Be realistic (this is not an RCT...)
- Its all data.
Using Your Inner Researcher to Improve Care One Patient at a Time

Follow it!

- Commit to following your chosen data
- Consider involving those you serve
- Take the time to both collect and record data
  - Be cognizant of regulations about record keeping and PHI/PII
- Determine the time frames before you start
Using Your Inner Researcher to Improve Care One Patient at a Time

Take the time to analyze and reflect

- For most single case designs, visual inspection of the data is performed “attending to the level, trend, and variability within and across phases.” (Freeman & Rose, 2011; p.134)
- What is the data telling you? (What are your hypotheses?)
- What is the data telling a colleague?
- What is the data telling your patient?
Using Your Inner Researcher to Improve Care One Patient at a Time

Apply your findings

- If a change in approach is suggested – what change will you make?
- If you make a change, how will you assess the impact?
- What additional questions does this bring up – in this situation and/or more broadly?
Using Your Inner Researcher to Improve Care for Groups of Patients

- As this hobby takes hold, perhaps larger questions emerge...
  - Am I more effective with treatment x or treatment y?
  - Does time of day impact my effectiveness?
  - Do those who get an orientation to psychotherapy complete more sessions? Have a lower no show rate?

- Similar research principles can be brought to bear
  - Decide what you want to better understand to improve care for those you serve
  - Follow it!
  - *Decide how you would like to analyze the data (visual, basic statistics)*
  - Take the time to analyze and reflect
  - Apply your findings
Using Your Inner Researcher to Improve Care for Groups of Patients

Decide how you would like to analyze the data

- Visual
  - Line graphs
  - Bar charts
Using Your Inner Researcher to Improve Care for Groups of Patients

**Decide how you would like to analyze the data**

- **Statistical**
  - If you have enough data, you can consider getting serious in your hobby and actually do some basic statistical analysis
  - Just using statistics does not mean it is now formal research – remember, if it is still for quality improvement and not generalizable knowledge (publication), it is not research
  - There are numerous online calculators that can help you perform simple statistics like a mean and a standard deviation or even a t-score
    - When looking for differences in a small sample (like a group of patients you’ve seen) or you don’t have a larger population mean for comparison, calculating a t-score is preferred. If you have a larger population mean which to compare, the a z-score is preferred...more on that in a moment.
Using Your Inner Researcher to Improve Care for Groups of Patients

- Decide what you want to better understand to improve care for those you serve
- Follow it!
- Decide how you would like to analyze the data (visual, basic statistics)
- Take the time to analyze and reflect
- Apply your findings
Using Your Inner Researcher to Improve Care at the Team or Clinic Level

Or: Your Inner Researcher is running wild and you’ve decided to involve others...

- Questions at the team or clinic level
  - Nobody shows up for late afternoon appointments.
  - Having the news on in the waiting room is stressing out my clients.
  - Our patients don’t want evidence-based therapies.
  - (Enter your favorite fact regarding your clinic here.)

- The emphasis in this section is deliberately not on questions that may arise in the context of already collected administrative data or performance metrics. Rather, the emphasis is on those questions that may be particularly unique to a setting, staff, or clinic.
Using Your Inner Researcher to Improve Care at the Team or Clinic Level

- As the questions now involve and impact others, enlisting buy in at the team level is essential
  - Be clear about what you think the question is
  - Seek input and feedback from the team
  - Be ready to modify that question accordingly

- Agree on expectations
  - Will anything be modified in the team/clinic?
  - What is to be collected? Who will do the collecting?
  - How will it be analyzed?
  - How will it be shared?
  - When will it be shared?
  - What will the process be for discussing the impact, incorporation, and/or utilization of the findings on the team/clinic?

- Your first step will be to use that Inner Researcher to both shape the discussion and incorporate the content of that discussion into a framework similar to:
Using Your Inner Researcher to Improve Care at the Team or Clinic Level

- Decide what you want to better understand to improve care for those you serve or for the team/clinic staff.
  - A robust discussion could lead to an unwieldy (at best) idea. Your Inner Researcher can assist in identifying those ideas (variables) that are most likely to be of use and most likely to be feasible given the steps below.
  - If part of the process involves change or different approaches, you as a researcher can help the team be very specific about what that will be. (e.g., if not news on the TV, then what? Sports? Home improvement? Health education?)
- Follow it!
  - As noted, you’ve decided to involve others. Clear expectations, buy in, and realistic expectation on your part will be essential. Remember, this is not an RCT or an RO1.
- Decide how you would like to analyze the data (visual, basic statistics)
  - Be particularly mindful of your audience. Pilot test presentation approaches on members of your team.
- Take the time to analyze and reflect
  - The busy reality of clinic life means this doesn't happen unless scheduled well in advance. Keep folks engaged with occasional updates.
- Apply your findings
  - Ensure that a process to consider implementation of findings is established well before the results are provided
  - And note that this may earn you the lead on a PDSA project...
Making the Transition to Research

- Using your Inner Researcher to improve your own practice or help improve your team or clinic can benefit those you serve and be rewarding to you.

- If you find it brings its own form of enjoyment, you might consider moving to more formal research intended to contribute to the general knowledge base (e.g., get published).

- The processes you engaged in to conduct quality improvement projects can form the foundation for more formal research.

- However, there are additional considerations
  - Conducting research in your setting may involve specific training and certification.
  - The more formal process requires additional time and resources
  - Projects will (typically) need to be submitted to the IRB – which can be a time consuming and iterative process.
  - Additional time and resources will be necessary (above and beyond what you’ve already committed)
Practice Based Research Networks (PBRN)

- A Practice Based –Research Network is a group of practices that have banded together to conduct research.
  - They grew out of the desire to better understand the realities of daily clinical practice.
  - The development and implementation of PBRNs remains a work in progress.

- Large PBRNs may involve a number of clinics across states or countries.
  - Can provide large volume point of care research that emphasizes practical clinical implementation
  - Each site maintains a local infrastructure to conduct research
  - Planning for studies is essential to their success and time consuming

- There is even some evidence that participation in research improves healthcare performance.
Practice Based Research Networks (PBRN)

▪ Smaller PBRNs may be a group of practitioners who agree to collaborate on research in their clinical setting
  ▪ Though smaller volume, can provide essential point of care research that emphasizes clinical implementation
  ▪ The process can be prospective, following a similar model to the quality improvement projects described earlier
  ▪ When located in the same (or similar) practice setting, archival data can also be utilized to answer questions relevant to daily practice

Objectives Revisited

- Explain the difference between a process/quality improvement project and a research project.
  - Respecting those you serve
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- Use research principles to directly improve clinical practice.
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- Describe a practice based research network.
  - Should you decide to seek the Fame, Fortune, and Glory* that accompany the world of published research!

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Thank you!

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