TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

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At Rush University Medical Center
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIO STUDIO: Honest Broker Role</td>
<td>3</td>
</tr>
<tr>
<td>Attendees</td>
<td>3</td>
</tr>
<tr>
<td>Summary</td>
<td>3</td>
</tr>
<tr>
<td>Top 3 Actions Proposed by the Design Science Studio Participants</td>
<td>3</td>
</tr>
<tr>
<td>Top 3 Actions Proposed by the Quality Science Studio Participants</td>
<td>4</td>
</tr>
<tr>
<td>TRIO Studio Problem Description</td>
<td>5</td>
</tr>
<tr>
<td>Main problem for the studio participants to solve</td>
<td>6</td>
</tr>
<tr>
<td>Studio Methodology</td>
<td>6</td>
</tr>
<tr>
<td>Design Science Method</td>
<td>6</td>
</tr>
<tr>
<td>Quality Science Method</td>
<td>6</td>
</tr>
<tr>
<td>Design Thinking Based Solutions</td>
<td>7</td>
</tr>
<tr>
<td>Problem visualized with Insights</td>
<td>7</td>
</tr>
<tr>
<td>High level insights</td>
<td>9</td>
</tr>
<tr>
<td>Solutions Generated by Design Science Approach Team</td>
<td>9</td>
</tr>
<tr>
<td>Quality Science Based Solutions</td>
<td>11</td>
</tr>
<tr>
<td>Problems Analysed to Identify and Define Issues</td>
<td>11</td>
</tr>
<tr>
<td>Analysis of Issues and Causes</td>
<td>12</td>
</tr>
<tr>
<td>Solutions Generated by Quality Science Approach Team</td>
<td>13</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>16</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>16</td>
</tr>
</tbody>
</table>
TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

by Drew Simon

Rush University Medical Center

Facilitators: Santosh Basapur, ITM and Sherry Robison, ITM

Research Assistants: Wanshan Wu and Renjie Li (IIT Institute of Design MDes Students)

Attendees: Tony Solomonides, NorthShore; Julian Solway, M.D., UChicago; Jian Yang Sheng, RUMC; Yi li, Advocate; Cynthia Tom Klebba, Loyola; Denise Voskuil-Marre, RUMC; Katie Ishikawa, RUMC; Sigi Zhany, RUMC; Raj Shah, RUMC; Gerald Moose Stacy, UChicago; and Ashley Lopez, ITM.

Summary
Drew Simon, Rush University Medical Center (RUMC) gave background information and introduced the problem to the participants.

Drew is looking to increase enrollment in research studies done at all ITM institutions by advising patients about studies done at Rush and at other ITM institutions. Her role is described as an Honest Broker at Rush.

Design Science Methodology and Quality Science Methodology were both used to solve the problem faced by all ITM institutions. Many suggestions, based on experiences within different departments, were made.

Top 3 Actions Proposed by the Design Science Studio Participants to Drew:

1. Honest Brokers like Drew at each ITM site. The person can maintain knowledge about studies across ITM and connect people as and when needed.

2. Data driven evidence for impact of Drew’s (Honest Broker’s) work to demonstrate positive impact such that this role is supported locally and across ITM.

3. Single IRB to enable Honest Broker’s access to studies with lower recruitment. This can enable the person to reach out to appropriate PI and study teams and offer them the necessary help. Proactive messaging could help our study teams.
TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

Top 3 Actions Proposed by the Quality Science Studio Participants to Drew:

1. Honest Broker and Clinicians: Honest Broker could introduce clinicians to each other. The Honest Broker needs to be activating and implementing a process.

2. Flyer on “New Normal”: ITM logo on flyer and pass out at other institutions. Standardization could help cross-posting of flyers and enable farther reach and increase of catchment area.

3. New Normal: Research Portal and where will the portal be advertised. New technological solutions should leverage the philosophy of Honest Broker and multiply its reach and impact.
TRIO Studio Problem Description:

Drew Simon explained the goal is to increase enrollment in research studies done at all ITM institutions by advising patients about studies done at Rush and at other ITM institutions.

Drew explained the ITM consists of six institutions, UChicago, Rush, NorthShore, Loyola, Advocate, and IIT. All six institutions do research, and they do not do the same research. IIT has no clinical research clinics to recruit potential participants.

The problem is that several research studies are being done at the ITM institutions. These research studies are beneficial to participants who want to volunteer and become part of studies and trials. But, not all institutions are doing the same studies. Hence potential participants are not aware of the studies being done at institutions other than the one they are in communication with.

Drew, as an Honest Broker tries to connect people with studies at Rush and at other ITM institutions. Her challenge is to get the PIs and study teams at Rush informed about her role and help that she can provide. In addition she is trying to extend this kind of help to entire ITM member institutions. Current efforts include collecting flyers/advertisements of various research studies to share them with all ITM institutions. PIs also do Grand Rounds within and across ITM institutions to educate people about their studies. This has not been enough to get participants informed and participating in studies.

Drew is looking for innovative ways to involve all ITM institutions in enrolling/alerting their patients in studies not done at their institution.
Main problem for the studio participants to solve:
How do we enable study teams to use all the available TRIO resources especially Honest Broker(s) like Drew at Rush?

Studio Methodology
Design Science approach as well as Quality Science approach were used as part of the studio to solve the problem.

Design Science Method
We used the Design Science approach with four steps:

1. Created a free form mind map of the problem and identification of issues – Mind Mapping technique
2. Actionable insights were identified
3. Generated ideas to address issues
4. Synthesized solutions from the smaller ideas – Creative integration of smaller ideas led by Design Thinking Expert facilitator was done using white boards.

Solutions were proposed and were rated by the team on implement-ability (0-4 scale)

Quality Science Method
The Six Sigma Quality Science approach was used which consisted of four steps:

1. Problem definition and mapping of actual structure of the process
2. Identify issues and analyze causality using Fishbone analysis
3. Generated ideas to address to issues – Brainstormed using SCAMPER method
4. Merged smaller ideas and scale ideas to create bigger solutions

Actionable insights and solutions were proposed and solutions were rated by the team on implement-ability (0-4 scale)
Design Thinking Based Solutions:

Problem visualized with Insights

The group first discussed the problem and its context yielding the following context diagram as well as the stakeholder map:

Figure 1. Mind map of Issues with context
TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

Figure 2. Stakeholder Map
Design Science Team Discussing Solutions

High level insights:
Following the context discussions, insights were generated as follows:

Solutions Generated by Design Science Approach Team:
Five implementable solutions were created to solve the issues. The ideas were discussed to be of importance and deeper impact and hence made into these 5 solutions. The other ideas discussed but parked as being either too narrow or too light in impact have also been listed in the figure below.

The solutions are as follows:

1. Create Honest Brokers role (like Drew’s at Rush) at each ITM institution. The person can maintain knowledge about studies across ITM and connect people as and when needed.
2. Provide case studies and evidence in data showing positive impact of Honest Brokers role on ITM objectives of efficient recruitment and retention. Data driven evidence for impact of Drew's (Honest Broker's) work will demonstrate positive impact such that this role is supported locally and across ITM.
3. Single IRB to enable Honest Broker's access to studies with lower recruitment. This can enable the person to reach out to appropriate PI and study teams and offer them the necessary help. Proactive messaging could help our study teams.
4. Improve information availability and “liveness” of it. Recruitment data and progress of trials should be real time updated to dashboards enabling better tracking and actions to correct course.
5. Chatbot like Alexa or Siri built into our New Normal Portal for answering study related questions by common person wanting to know details of a study or trying to find a study relevant to their needs or situation.

Figure 4. Design Science solutions discussed.
Quality Science Based Solutions:

Problems Analysed to Identify and Define Issues.
Drew’s problem was analysed and classified into the following table sections. Problems identified include not knowing the problems in recruitments for any given study. There is no single platform. Also, it was identified that institutions will help but do not expect them to do the heavy lift because every person is already sufficiently busy in everyday work. IRB and the application for continuing review might be opportunity space to know when a study is recruiting well or not and take corrective action using Honest Broker or TRIO in general.

Figure 5. Problem Definition
TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

Understanding the Process

- IRB Approval
- Flyer protocol submitted
- Collecting Flyers
- Post Flyers
- Distributing flyers

Community | ITM Institutions | Specific Population

Process is Ad-Hoc and Hard to replicate

Figure 6. Understanding Process
Solutions Generated by Quality Science Approach Team:

Seven solutions were created to solve the issue of innovative ways to enable study teams to use all the available TRIO resources. They are as follows in the list below and the diagram digitized from whiteboard:

1. **Honest Broker and Clinicians**: Honest Broker could introduce clinicians to each other. The Honest Broker needs to be activating and implementing a process.

2. **Flyer on “New Normal”**: ITM logo on flyer and pass out at other institutions. Standardization could help cross-posting of flyers and enable farther reach and increase of catchment area.

3. **New Normal**: Research Portal and where will the portal be advertised. Research Portal and where will the portal be advertised. New technological solutions should leverage the philosophy of Honest Broker and multiply its reach and impact.

4. **Share Data**: Share the data with the referring institution. Create a culture change and establish collaboration between ITM institutions.
5. **Abandon Clinic Interaction**: Abandon the clinic interaction as a method. Maybe don’t use the investigators to help with the interaction.

6. **Cash Incentives**: Department to Department incentives and Institution to institution incentives. No department or institute will want to spend resources on someone other than themselves.

7. **Governance through all ITM institutions**: Standardized processes, formats and access points like New Normal portal and Single IRB enablement will help enable cross institution collaboration and cross-recruitment on non-competitive studies.
Quality Science Team discussing solutions

Solutions_ Quality Science Approach

01 Clinician vs. Clinician
Honest Broker intro - activating proforma process

02 Flyer on “New Normal”
ITM logo can be added on the flyer and it will be passed out to other institutes.

03 Data back to referring institute
Collaborations between ITM institutions

04 “New Normal”
Research Portal
Where do we advertise Portal?

05 Governance through all ITM Institutes

06 Abandoning clinic interactions as a method?
Maybe not the instigator

07 Cash Incentives
North Shore? Department to department.

<End of Document. Thank you.>
Appendix 1.
Slides used by Drew Simon RUMC, for the studio kick off.

Appendix 2.
Actual pictures of white board from the studio session.

Design Science
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Quality Science

CURRENT STATE:
What is the current problem?

GOAL STATE:
The state or condition that would result if the problem was solved?

WHO is experiencing this problem?
Investigator
Study team
Clinicians
Coordinators
Potential participants
Different departments/institutes

WHAT is the Scale of the problem?
-6 institutions
-Institutional problem
-Different studies
-More critical for
-Patient problem: Facility & behavioral
-Adherence & adherence
-Study

WHY do you think?

-Too few
Platform
-Incomplete, dispersed listings
-Compliance platform-compliance
-Use only CT, where you are unlikely to move if logistical
-Not sharing future plans of studies
-No mechanism to distribute or advertise at other institutions
-Not these resources
-Cant export other (not to be set

IRB

Acknowledgments:
-Also patients' rights in institution
-Buying out placebo, self-interest
-Results from the point of view of the IRB.
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Process

1. Post Flyer
   - fly 3 weekly
   - Approval
   - Post Flyer protocol submitted

2. Collecting Flyer
   - Distributing
     - ITM Inst.
     - Community Cluster
     - Spec. population

Solutions

1. New normal
   - Research Portal
   - Where do we acquire portal?

2. Flyer on "New normal"
   - ITM logos on Flyer
   - Post out to other inst.

3. Clinician vs. Clinician
   - Honest Broker
   - Ultra-activating
   - Governance through all ITM Inst.
TRIO STUDIO: How Do We Involve All ITM Institutions in Enrolling/Alerting Their Patients in Studies Not Done at Their Institution? Can an Honest Broker help?

4. Data back to referring inst. (culture change) Collaboration between ITM institutions

5. Abandoning clinic interaction as a method? maybe not the mitigation

6. Cash incentives (cost/benefit?)

Diagram:
- No inst. will spend for another inst. no 2 point no way of knowing
- listing only of pts.
  - limited
  - not notified Pt. Friendly
  - not listed correctly
  - not updated
- Self-initiated
- No mechanism to advertise to other inst.
- Inefficiency in the system
- Too many unknowns clinical interactions
- Barriers for inst. to refer to other inst.
- Research not a priority
- Not everyone is research trained
- Mixed messaging (research is a priority, but PC is a big priority and provision for house limited time)
About the Institute for Translational Medicine (ITM)

The ITM is a partnership between the University of Chicago and Rush in collaboration with Advocate-Aurora Health Care, the Illinois Institute of Technology (Illinois Tech), Loyola University Chicago, and NorthShore University HealthSystem that’s fueled by about $35 million in grants from the National Center for Advancing Translational Sciences at the National Institutes of Health through its Clinical and Translational Science Awards (CTSA) Program.

We’re part of a network of more than 55 CTSA Program–supported hubs across the country working to slash the time it takes to develop and share new treatments and health approaches. We work with you and for you to make participating in health research easy, so that together we improve health care for all.

Join the movement and learn more about how we help researchers, physicians, community members, industry, government organizations, and others. Visit us at chicagoitm.org and connect with us on Facebook, Twitter, Instagram, YouTube, and LinkedIn @ChicagoITM.

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