Virtual coordinator and site training and reorganization of a multisite consortium upon grant renewal: Challenges of the NeuroNEXT network

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ABSTRACT

The COVID-19 pandemic abruptly forced changes in how to conduct multicenter clinical research. Gone were the days of face-to-face meetings and working together in person. Virtual teams became the norm rather than exception. The Network for Excellence in Neuroscience Clinical Trials (NeuroNEXT: NN) was created with a vision to conduct studies in neurological diseases through partnership with academia, private foundations and industry. A fundamental aspect of the establishment and maintenance of this network was and is the NeuroNEXT virtual coordinator network. We found ourselves well-prepared for methods required of the pandemic because of our prior experience.

1. Introduction

The COVID-19 pandemic abruptly forced changes in how to conduct multicenter clinical research. Gone were the days of face-to-face meetings and working together in person. Virtual teams became the norm rather than exception.

The Network for Excellence in Neuroscience Clinical Trials (NeuroNEXT: NN) was created with a vision to conduct studies in neurological diseases through partnership with academia, private foundations and industry [1]. A fundamental aspect of the establishment and maintenance of this network was and is the NeuroNEXT virtual coordinator network. We found ourselves well-prepared for methods required of the pandemic because of our prior experience.

We describe the methodology of activities of the Coordinators’ Committee of NeuroNEXT in the sometimes-stressful transition of grant renewal and treatment center changeover. We present the methodology of our virtual orientation system and, in Results, measurements of its effectiveness. We share our experiences with the NeuroNEXT Network so that other networks and consortia may be able to benefit from the coordinator education team’s experiences.

2. Material and methods

The Network consists of a Clinical Coordinating Center (CCC) at Massachusetts General Hospital, a Data Coordinating Center (DCC) at the University of Iowa, and 25 funded clinical sites chosen based on ge-
Table 1

| SITE | PRINCIPAL INVESTIGATOR | CO-INVESTIGATOR | NeuroNEXT COORDINATOR |
|------|------------------------|-----------------|------------------------|
| Barrow (St. Joseph’s Hospital and Medical Center, Dignity Health and Phoenix Children’s Hospital) | Jeremy Shefner | Nicole Turcotte | |
| Children’s Hospital - Boston (Beth Israel Deaconess Medical Center) | Basil T. Darras | Seward and Hilda Gutierrez | (BIDMC) |
| Columbia University Medical Center (Weill Cornell Medical College) | Karen Marder | Claudia Chiriboga | Joyce Moran |
| Harvard Partners (Massachusetts General Hospital, Brigham & Women’s Hospital) | Steven Greenberg | Anthony Amato | Vasiliki Patsiogiannis |
| Icahn School of Medicine at Mount Sinai (MSM) | Aaron Miller | Adilia Hormigo | Ruthie Perez |
| Northwestern University Lurie Children’s Hospital of Chicago | Tanya Simuni | Monika Szelą | |
| Ohio State University (The Research Institute at Nationwide Children’s Hospital) | Stephen Kolb | Amy Barlett, Sarah Heintzmann and Alexandra Alfarano |
| SUNY (Downstate) Medical Center, Upstate Medical Center, State University of New York at Stony Brook, and State University of New York at Buffalo | Steven Levine | Nadge Gilles | (Downstate) |
| University of Alabama at Birmingham Davis | Louis Nabors | Khurram Bashir, Poonam Prasad | |
| University of California - Irvine | Craig McDonald | Taheen Mozaffar | Marie Wencel |
| University of Cincinnati Children’s Hospital Medical Center | Tracey Glauser | Daniel Woo | Angela Molloy and Peggy O. Clark |
| University of Iowa | John Kamholz | Katherine Dianne Brenner and Carrie Stephan Mathews | Julie Steele |
| University of Miami School of Medicine (University of Central Florida) | Michael Benatar | | |
| University of Michigan at Ann Arbor | Kelvin L. Chou | Roger L. Albin | Amanda Ransaker |
| University of Pennsylvania (Children’s Hospital of Philadelphia) | Ramon Diaz-Arrastia | Brenda Ranwell and Andrew D. Siderowf | Beth Harders |
| University of Pittsburgh | Paula R. Clemens | | Christine Amity |
| University of Rochester | Robert Holloway | | Christine Annis and Noreen Connolly |
| University of Texas Southwestern Medical Center | Mark Goldberg, Susan Iannaccone, | Sharon Primeaux | |
| University of Utah | J. Rob Singleton, | Mariana Doudova | |

handbook outlining network processes, 2) a NeuroNEXT FAQ Document, 3) a virtual network orientation presentation, 4) additions to the NeuroNEXT website of coordinator resources, and the coordinator mentorship program.

We anticipated that the coordinator mentorship program would be a critical feature to overcome site isolation and bring new coordinators into the team. A virtual “buddy system”, the program paired legacy, veteran coordinators with coordinators from new sites. Mentors and mentees were matched by geographic location and institution structure (multicenter institutions versus single center, full-time versus shared coordinators). Acknowledgement of time zone differences and institutional structures provided for a more optimal virtual learning experience. Important factors that were central to the mentorship process were recognizing the need for personal connection, relationship building and addressing concerns as soon as they were identified.

To aid legacy coordinators, the centralized resources and virtual preparatory meetings enabled “buddies” to provide a consistent network wide training while accounting for the range of mentee experience and individual strengths and weaknesses.

The local resources were reinforced by a regular series of coordinator conferences conducted via teleconferences and webinars with an opportunity for discussion and interaction. A typical agenda included identified topics provided by the coordinators. Interactions were a key component so that communication was not just delivering information to the team.

3. Results

An evaluation survey was sent to all coordinators 9 months after the training program was launched. The survey was a combination of structured and open questions to solicit more in-depth responses. The structured questions provided an opportunity to establish a profile about the coordinator in the network such as experience, length of time in the network and measuring the effectiveness of the tools that were developed. Open questions provided responses to help the education team with suggestions for improvement and further educational opportunities.

The open comments provided details that supplemented the overall positive feedback returned from the structured survey. A sample from mentees included “Comforting to have an identified experienced person to go to for questions.” Mentors comments were “Program helps the mentees feel more like they belong by having someone specific to reach out to as it is often easy to feel lost in a large network”, “Program created a dedicated resource to the mentee which is important-decrease turn over, efficiency, continuity and a partnership.”

Effectiveness of the program was confirmed by comparison of site productivity metrics. The time needed for site activation and data quality metrics are comparable for the new and original sites. For studies with ongoing recruitment, the rate of new enrollments at the new sites exceeded the rate at the original sites (Study NN107: new = 0.68, orig-
inal = 0.18 patients per site; Study NN108: new 0.48 48 original, 0.30 patients per site).

4. Conclusion

Virtual Teams are challenging to build and maintain due to lack of face-to-face interactions and difficulty bonding. Our success pre-COVID depended on the balance of maintaining centralized resources and leadership balanced against the needs of individuals that varied with experience, site organizational and time zone differences. Key features were developing individual relationships with formal mentorship pairings.

Acknowledging each coordinators experiences, skills and unique qualities they bring to the team is instrumental in building a strong virtual collaboration. An inherent problem in virtual team building is an individual team member may feel anonymous and isolated which may lead to lack of motivation. Getting to know each team member on a personal level and building a sense of trust amongst each other is vital. A successful team dynamic is to include interactions on a personal level, sharing personal stories, as well as working together to get the job done building on each other strengths. In addition, recognizing team members for their accomplishments and successes are important in keeping up morale and motivation [5].

In the Post- COVID Era, NeuroNEXT was able to pivot quickly to keep the momentum going as we shifted to working from home. Some adaptations needed to be made initially with use of technology to help with signatures for regulatory documents and more utilization of video conferencing. Our virtual team strength continued through the challenging times of COVID-19.

As we move forward in this continually evolving work environment, virtual teams are becoming the standard way to conduct business. We need to seize the opportunity to become successful in this new business model.

Contributing authors

Mark Quigg MD MSc (University of Virginia), Merit Cudkowicz, MD MSc (Massachusetts General Hospital), Christopher Coffey PhD (University of Iowa).

Disclaimer

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Declaration of competing interest

There is no conflict of interest by any author.

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