An online training system to enable systematic delivery of study protocols in multisite neuroimaging

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How to facilitate consistent protocol delivery in multisite studies?

Multisite studies involve the administration of a common data collection protocol across disparate institutional locations. Although multisite studies allow access to a greater number of participants, they are prone to issues surrounding protocol consistency, data reconciliation and coordination.

To ensure the data collection protocol is consistently applied at separate study sites, each with their own unique staff (Figure 1), multisite studies often use in-person training or online training, or some combination of the two⁴-⁶.

An online training system.

Our group has recently developed the Training Module: an online platform, integrated within LORIS⁵, that allows staff members at study sites to receive standardized training. LORIS helps to alleviate the logistical difficulties multisite studies face through a centralized data repository and numerous study and data management tools.

The Training Module can be used to train site staff to administer any test comprised in the study’s test battery.

To get started with the Training Module, a training administrator must develop training content which is then inserted into the LORIS database.

Part of an ecosystem of multisite study management tools.

LORIS’s Training Module can be used as complementary or an alternative to existing training methods in multisite studies. It is flexible, offering training possibilities for various types of tasks and allowing for many types of training content. It aims to facilitate and improve the consistency of protocol delivery and inter-rater reliability⁷ in multisite studies.

The Training Module’s benefit is ultimately derived from being part of a larger study management application (see LORIS). Useful study management abilities emerge from the interaction between the different tools and data repository.

Future Developments

Improved Training Centre Interface

Advised filtering of training units; progress status displayed (Figure 3).

Front-end Training Content Upload & Editing

Ability for a training administrator to upload and edit training content directly from LORIS (Figure 4).

Training for Tasks Outside of Test Administration

Certification for other procedural skills site staff may require to systematically deliver the protocol.