**DATA MANAGEMENT AND SHARING PLAN**

An example from an application proposing to collect clinical and MRI data from human subjects.

**Data Type**

Demographic, clinical, and MRI, 1H fMRS and fMRI imaging data will be acquired from 110 affected youth and 110 matched healthy controls (described in detail in sections C.3 and C.4 of this application). All data will be de-identified prior to receipt by the repository, but the information needed to generate a global unique identifier for the NIMH Data Archive (NDA) will be collected for each subject.

In addition to the subject level data described above, all 1H fMRS and fMRI task related paradigm designs and experiment definitions will be deposited in the NDA.

**Related Tools, Software or Code**

The clinical data will be analyzed with custom Python code written using the statsmodels, numpy, and pandas packages, all of which are freely available. 1H fMRS spectra will be analyzed with LCModel 6.3 software using LCMgui, which is freely available from <http://s-provencher.com/lcm-test.shtml>. fMRI images will be analyzed using the [SPM8 toolbox](https://www.fil.ion.ucl.ac.uk/spm/software/spm8/) for [MATLAB](http://www.mathworks.com/products/matlab/) . While MATLAB is commercial software, most universities have site licenses available and the SPM8 toolbox is free. It is also possible that the toolbox might run in [Octave](https://www.gnu.org/software/octave/index), an open-source alternative to MATLAB , but we have not tried it. All code will be shared on our lab website at <https://github.com/labname>. The main readme.md file for the project will also include instructions and parameter choices for the GUI-based analyses.

**Standards**

Participant age, sex, ethnicity, height, weight, socioeconomic status, and other demographic data will be collected using the following instruments as defined in NDA:

1. Research Subject and Pedigree (ndar\_subject01)
2. Demographics Short Form (demsf01)
3. Ethnic Group Questionnaire (ethgrp01)
4. Height and Weight (height\_weight01)
5. Hollingshead Socioeconomic Rating Scale (ses01)
6. Pubertal Development Scale (pds01)
7. Edinburgh Handedness Inventory (edinburgh\_hand01)
8. WASI-2 (wasi201).

In compliance with [NOT-MH-20-067](https://grants.nih.gov/grants/guide/notice-files/NOT-MH-20-067.html), the following data will be collected to facilitate aggregation of this data set with other data sets:

1. DSM Crosscutting for Youth (dsm5crossch01)
2. RCADS-25 (rcads2501)

The clinical assessments we plan to collect for this study include:

1. Kiddie-SADS-Present and Lifetime Version (ksads\_pl01)
2. Children’s Yale-Brown Obsessive Compulsive Scale (cybocs01)
3. Schedule for Obsessive-Compulsive and Other Behavioral Syndromes (Hanna. Schedule for Obsessive-Compulsive and Other Behavioral Syndromes, Ann Arbor: University of Michigan, 2010, new data dictionary will be defined in NDA)
4. Dimensional Obsessive Compulsive Scale (docs01)
5. Yale Global Tic Severity Scale (yale01)
6. Child Behavior Checklist (cbcl01)
7. Multidimensional Anxiety Scale for Child Parent and Self (masc\_p01)
8. Conners 3 (conners3\_ps01)
9. Adolescent Depression Rating Scale (doi:10.1186/1471-244X-7-2, new data dictionary will be defined in NDA)

1H fMRS and fMRI data will be shared with the Image (image03), Imaging Work Flow (iwf01), and Imaging Collection (imagingcollection01) data dictionaries as defined in NDA.

**Data Preservation, Access, and Associated Timelines**

All data will be deposited to NDA starting 12 months after the award begins and will be deposited every six months thereafter following the usual NDA data submission dates. Data will be findable for the research community through the NDA collection that will be established when this application is funded. The research community will have access to data when the award ends.

As required by NDA, studies will also be created that contain the data used for every publication. Those studies will be shared when the pre-print is available. NDA studies have digital object identifiers (DOI) to aid in findability. We will include that DOI in relevant publications.

To request access of the data, researchers will use the standard processes at NDA, and the NDA Data Access Committee will decide which requests to grant. The standard NDA data access process allows access for one year and is renewable. Once the data are submitted to NDA, the archive will control the long-term persistence of the data set.

**Access, Distribution, or Reuse Considerations**

All research participants will be consented for broad data sharing.

**Oversight of Data Management and Sharing**

The Office of Sponsored Programs at University X that will be administering this award has created a data management and sharing plan compliance system as part of their process for submitting the annual NIH progress report. That Office is collecting information related to the number of research participants that are deposited each reporting year. The Office of Sponsored Programs will also look for the NDA data DOIs from NDA Studies and will include that information in the annual progress report.

**Validation Schedule**

If funded, within 6 months of the Notice of Award date we will submit a Data Submission Agreement signed by the principal investigators and an institutional business official, as well as define and complete the Data Expected section of this project. Uploads of all initial demographic, clinical, and raw structural MRI, 1H fMRS and fMRI research data will be completed using the second submission cycle deadline following the Notice of Award date. Subsequent data uploads will be harmonized, validated, and submitted biannually on the standard January 15th and July 15th submission deadlines.

We also plan to use the NDA validation tool as a quality control measure in formal submissions to the data archive. The data manager in charge of submitting data to NDA will help researchers in the group validate their data once every month.