Library support for clinical and translational research: research data management and data science

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RESEARCHER SUPPORTED BY CLINICAL AND TRANSLATIONAL RESEARCH AWARDS AND SCHOLARSHIPS

CTSA-funded research involves complex, multi-tiered projects implemented by staff with diverse tasks and skill sets. No one person can be expected to manage every step involved, and so librarians are natural partners. By providing targeted services and training, librarians can help CTSA staff do research better and faster.

To marry the needs of CTSA staff and the strengths of librarians involves wide-ranging conversations to identify strategic synergies between existing library services and pain points in CTSA projects. This partnership benefits immediate projects as well as the larger goal of translating new findings into practice.

NEXT STEPS FOR CUSHING/WHITNEY MEDICAL LIBRARY AND YALE CENTER FOR CLINICAL INVESTIGATION

• Present at a Lunch and Learn session hosted by Yale’s CTSA-funded translational science institute, YCCI
• Schedule follow-up training sessions based on researcher requests
• Conduct outreach
• Present a research data management training session
• Educate Yale librarians about CTSA-specific needs and how they can use their existing skill sets with this audience
• Create an online presence for the library’s CTSA program
• Continue to assess researchers’ needs and our program’s impact

RESEARCH PAIN POINTS AND LIBRARY RESOURCES

<table>
<thead>
<tr>
<th>Data support</th>
<th>Common pain points</th>
<th>Relevant resources</th>
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<tbody>
<tr>
<td>LITERATURE SEARCHING AND RESEARCH QUALITY</td>
<td></td>
<td></td>
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<tr>
<td>• Poor quality of study, and lack for similar studies</td>
<td>• Mediated searches and round-training of relevant resources</td>
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</tr>
<tr>
<td>• Need researchers sometimes need guidance and training</td>
<td>• Textbooks, manuals, handbooks, appropriate LibGuides</td>
<td></td>
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PREPARING A PROTOCOL

• Developing which variables to use
• Literature searching, NIH Common Data Elements
• Finding appropriate instruments
• Literature searching in resources such as Health and Psychosocial Instruments
• Finding information about the reliability and validity of instruments
• Literature searching in resources such as Health and Psychosocial Instruments
• Investigating cost and benefits of different data collection instruments and devices
• Literature searching in resources such as databases

DEVELOPING THE STUDY POPULATION

• Recruiting study participants
• Literature searching on behavioral psychology and training scenarios
• Articulating inclusion and exclusion criteria
• Literature searching, including grey literature from ClinicalTrials.gov
• Identifying instruments to assess study participants’ capacity to consent
• Literature searching, including point-of-care resources
• Recruiting study participants from under-represented populations
• Census data and statistical tables, including online mapping platforms and geographic information systems
• Retaining study participants
• Training research staff in high-quality consumer health information

ONGOING STUDY

• Identifying neighborhood-level data such as socio-economic status or environmental exposures
• Literature searching, including point-of-care resources
• Measuring distance or time to treatment
• Geographic information systems
• Predicting expected incidence of adverse events
• Literature searching, including Patient Volume Data

COMPLIANCE

• Preparing for renewal of IRB approval
• Literature searching, including auto-alerts
• Preparing literature searches for protocol milestones in the Institutional Animal Care and Use Committee
• Mediated searches, workshops, and LibGuides on IACUC, ethical compliance

SCHOLARLY COMMUNICATION

• Publishing
• Advice on scholarly communication, from preliminary publishing to open access article processing charges, from NIH’s research impact, and NIH public access compliance
• Complying with the data sharing requirements of funders and journals
• Advice about responsible outside Yale and referrals to the Yale Research Data Consultation Group
• Complying with pre-publication requirements
• Advice on pre-publication

GETTING STARTED AT YOUR INSTITUTION

Identify individuals to approach with questions and offers of support—perhaps starting at the website of your institution’s CTSA-funded translational science institute. You can also use databases like NIH RePORTER and FEDRIP to identify grants and individuals whose experiences will help you understand the skills and needs of local CTSA researchers. Approach them with an open mind and learn about their workflow, frustrations, and needs. Use these conversations to develop relationships; “close the loop” by returning to these stakeholders for continuous feedback as you develop your program.

Conduct a literature review to determine how other libraries have worked with CTSA researchers at their institutions. Share information with colleagues; they may already be supporting some CTSA researchers as part of existing services. Consider the skills that librarians at your institution already possess that might help CTSA researchers solve problems.

CITATIONS


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