

Mental Health Services Research Training for the Next Generation of Leaders in the Public Health Sector: A Case Study of the UCSF/SFGH Public Psychiatry Fellowship

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Community mental health centers serve over 3.5 million adults with severe mental illness annually [1]. However, a chronic shortage of well-trained community psychiatrists perpetuates difficulties in providing effective, evidence-based services in community mental health settings [2]. To increase the number of community psychiatrists able to implement high quality care, a sustainable clinical leadership training program with a health services research emphasis was created in San Francisco County.

The University of California, San Francisco/San Francisco General Hospital (UCSF/SFGH) Public Psychiatry Fellowship is a public-academic partnership between UCSF and San Francisco's Community Behavioral Health Services (CBHS). The UCSF/SFGH Department of Psychiatry has had a long and close relationship with CBHS. The fellowship was initially funded by Mental Health Services Act (MHSA) dollars allocated to San Francisco County. The MHSA, commonly referred to as "the Millionaires Tax," was passed by statewide referendum in 2004 and places a 1 % state surcharge tax on annual incomes of over \$1 million [3]. Revenue is earmarked by to provide mental health services and *new* workforce education and development programs to "remedy shortage of qualified individuals to address severe mental illnesses" [3]. Being aware of these funds, we developed a business plan estimating that the clinical revenue generated by fellows would generate sufficient dollars to cover the costs. In addition, the fellowship would train psychiatrists interested in working in CBHS clinics, which was important because CBHS frequently had difficulty filling openings.

In 2011, CBHS agreed to use a portion of their allocated MHSA money to fund the UCSF/SFGH Public Psychiatry Fellowship for a 2-year trial period. Funding covers salaries

and benefits for two fellows, a portion of two faculty salaries, some research assistant time, and administrative costs. In return, fellows work as psychiatrists in CBHS clinics 4 days a week. The primary fellowship goals include: (1) recruitment of well-trained psychiatrists dedicated to working in community mental health settings; (2) generation of Medicaid revenue sufficient to cover the costs of the program, (3) completion of mental health services research projects addressing CBHS priorities, and (4) placement of fellows in leadership roles in public mental health settings. After the program showed initial success, we have secured continued funding through CBHS and created additional funding arrangements with local community based organizations to support additional fellows.

Of the 15 Public Psychiatry Fellowships in the country, our program is unique in having fellows implement and complete a mental health services research study during the fellowship year [4]. This research component both improves the capacity to evaluate services provided in community settings and also addresses many of the goals outlined in the 2006 NIMH report on the future of mental health services research [5]. For example, the fellowship focuses on the importance of true public-academic partnerships to bridge science and service and emphasizes the importance of research that incorporates public health significance, practical utility, and acceptability to participants [5].

Approach

As detailed in a recent article in *JAMA*, there are several key components to successfully teaching and performing research during clinical training, specifically: (1) stimulating interest, (2) finding time, (3) finding mentors, (4) finding faculty time, (5) developing research skills with a research curriculum, and (6) finding funding [6]. In this paper, we describe our approach to incorporating each of these components into our fellowship to improve the capacity of our fellows to conduct

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research and quality improvement studies in public mental health settings as described below.

Stimulating Interest

From the outset of the program, fellows are engaged in discussions of developing program evaluation or quality improvement projects that match their personal interests *and* the interests of their clinics and the behavioral healthcare system at large. Fellows are encouraged to discuss their ideas with fellowship faculty, the medical directors of their clinics, clinic staff, and the CBHS Medical Director. We emphasize that fellows need to choose topics that are of personal interest to them. We also provide examples of completed projects by prior fellows.

Finding Time

Fellows devote 1 day a week to professional training and research activities. Every week, there is a 2 h seminar that covers topics including the structure of the health care system, management, recovery and psychosocial rehabilitation, integration of care, and advocacy [7]. An additional hour is spent in either group or individual supervision, which includes discussion of fellows' projects. The remainder of the day is protected to work on their projects. Additionally, each fellow is provided with 6 h of research assistant time weekly. The research assistant performs a variety of tasks, including, but not limited to: preliminary literature reviews, drafting human subject (IRB) protocols, drafting data collection forms, collecting and entering data, data analysis, and assisting with posters and presentations. Research assistant time is crucial for completing the projects and gives the fellows first-hand experience with supervision.

Finding Mentors

All three of the fellowship's core faculty members are mental health services researchers. Their expertise includes general mental health services research methods, integration of care, health disparities, and HIV psychiatry. One faculty member is the dedicated Research Supervisor (Dr. Shumway). The remaining two (Drs. Dilley and Mangurian) are psychiatrists with leadership roles serving as research and career mentors, as well as role models.

Finding Faculty Time

Fellowship funding supports a modest amount of faculty time. The Director receives 0.15 FTE, while the Research Supervisor receives 0.10 FTE. The remaining faculty member donates time to the fellowship. All three participate in the weekly seminar and group supervision. The Research Supervisor meets with the fellows individually as necessary to assure that projects move along appropriately and also oversees the research assistant.

Developing Research Skills with a Research Curriculum

Training in research methods is currently provided in the context of the fellows' research projects. In our first year, we conducted a research "bootcamp" that included several weeks of lectures and discussion focused on research design, data collection and management, and data analysis. However, this concentrated format did not match the fellows' varied levels of research experience. We now discuss methodology in the specific context of individual fellows' projects and emphasize tools and methods that fellows can use in their projects and beyond. For example, we provide instruction in conducting literature searches and using reference management software. IRB protocol submissions are used as a vehicle to define multiple components of a research project (e.g., study design, outcome measures) and to explore the ethical issues in conducting research in vulnerable populations. Throughout the year, fellows are encouraged to think about their clinics and the clinical services provided there through the lens of research and quality improvement and to focus on the use of administrative data to help better understand their clients' needs. Through discussion of their projects, fellows are introduced to the ideas of standardization, generalizability, confidentiality, and the differences between hypothesis-driven research studies and quality improvement projects. The overall focus is to prepare the fellows to assume leadership roles in community psychiatry and give them first-hand experience of the benefits and limits of administrative data as a basis for decision-making, as well as an appreciation for the time and effort required to conduct such projects.

Finding Funding

CBHS funds support the salary of fellows, the research assistant, and the Research Supervisor—all of which ensure completion of the research projects. The fellowship also provides fellows with some grant writing experience with a specific focus on SAMHSA and other funding agencies they are likely to encounter in the future.

Preliminary Results

Entering its third year, the UCSF/SFGH Public Psychiatry Fellowship has been successful in meeting all of its identified goals:

Recruitment We have recruited fellows who have completed residency training at leading training programs across the country, including UCSF, Columbia, NYU-Bellevue, Yale, UCSD, Tulane, University of Nevada, and Northeast Ohio Medical University. Additionally, 63 % of our fellows (5/8) have been former chief residents.

Revenue Fellows have consistently generated sufficient revenue through provision of clinical services to fund the fellowship program.

Research Projects All five graduated fellows completed projects that addressed topics of interest to the community mental health system, including: utilization of a co-located primary care clinic, timeliness of service engagement, housing trajectories of homeless clients, utilization of services by LGBT clients, and smoking cessation preferences of Asian clients. Typically, fellows develop a research topic of interest to them and the clinic medical director and then work with fellowship faculty to define a feasible research question. Retrospective cohort studies using existing administrative databases have been the easiest to conduct. Usually, fellows evaluate outcomes among a selected sample drawn from the entire clinic population. In addition to presenting at grand rounds, 80 % (4/5) of fellows presented their projects as posters or lectures at national academic meetings. One fellow's project is accepted for publication in a peer-reviewed journal [8]. Making formal academic presentations and developing writing skills help our fellows stand out during job interviews and have been beneficial to fellows in their public sector leadership roles, which require presentation and writing skills.

Post-fellowship Positions The fellows who have completed the program have gone on to obtain leadership roles (e.g., medical director of a community mental health clinic), academic positions (e.g., attending physician in a residency training program), or other community mental health positions (e.g., attending psychiatrist in a psychiatric emergency service or in a community mental health clinic). Fellows continue to use their research skills *after* fellowship. For example, one fellow has examined data on a relatively large cohort of clinic consumers who have died in supported housing to identify common themes and develop interventions to improve medical services for this vulnerable population. Another fellow is poised to assume leadership of a SAMHSA grant and understands how to measure and collect required outcomes. In both instances, the fellowship curriculum provided an understanding of what is measurable and meaningful in real-world practice.

Discussion

We believe that leaders in public psychiatry should be prepared to not only provide excellent, evidence-based clinical care, but should also receive training in basic management and the methods of health services research to evaluate and improve care. Although most of these leaders will *not* become researchers, familiarity with research methods can facilitate quality improvement projects that will help improve care for

the vulnerable populations served in the public mental health sector.

The UCSF/SFGH Public Psychiatry Fellowship is the only program nationally that is both clinically and research rich. We are proud that this fellowship is self-sustaining because of fellow-generated Medicaid revenue, *and* that they are able to conduct interesting and policy-relevant research projects during fellowship. Public psychiatry fellowships that provide opportunities to develop successful public-academic partnerships will help stimulate research projects, ideas, excitement, and revenue in public mental health settings.

Implications for Educators

- Developing preliminary health services research skills are possible during a public psychiatry fellowship.
 - Public psychiatry fellowships provide an opportunity to develop and nurture true public-academic partnerships that bridge science and service
 - The UCSF Public Psychiatry Fellowship is the only program nationally that includes a specific goal to complete a mental health services research project during the fellowship year.
 - The UCSF Public Psychiatry Fellowship model could be replicated in other areas with strong community psychiatry clinical programs and strong mental health services research programs.
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