

NOMINEE SUMMARY:

Name and Title of Nominee: Byerly, Matthew M.D.

Current Primary Appointment: PSYCHIATRY

Current Secondary Appointment: n/a

Current Rank: Associate Professor

Proposed Rank: Professor Clinical Scholar

Academic Track: Clinical Scholar

Percent Effort: 100%

Carol A. Tamminga, M.D.
Professor and Chairman
Lou and Ellen McGinley Distinguished Chair
in Psychiatric Research
McKenzie Chair in Psychiatry

Department of Psychiatry

December 19, 2013

J. Gregory Fitz, M.D.
Executive Vice President of Academic Affairs,
Provost and Dean
UT Southwestern Medical School

RE: Promotion of Matthew Byerly, M.D., to Professor, Clinical Scholar Track

Dear Dr. Fitz,

I am pleased to nominate Matthew Byerly, M.D. for academic promotion from Associate Professor, Clinical Scholar Track, to Professor in the Department of Psychiatry. This proposed promotion received a unanimous endorsement from our Departmental Appointments and Promotions Committee. Dr. Byerly's effort is divided into 55% research time, 35% educational time, and 10% clinical time. His research time includes clinical care for research patients in his trials.

Summary of Education and Training:

Dr. Byerly received his M.D. from the University of Arizona, College of Medicine in 1990. He completed his residency in general psychiatry, along with a fellowship in schizophrenia research, in 1994 at the University of Florida College of Medicine, where he was appointed to the faculty immediately after completion. In 1997, Dr. Byerly joined the faculty at the University of Arkansas for Medical Sciences. He was subsequently appointed to our faculty as Assistant Professor in 1998 and promoted to Associate Professor in 2007.

Research and Scholarly Contributions:

Dr. Byerly oversees a Schizophrenia Research Unit in our department. Under Dr. Byerly's leadership, this unit has sustained a program in adherence research, and has supported as many as 10 research staff and fellows since 2001. Since his initial faculty appointment at UT Southwestern, Dr. Byerly has maintained a strong presence in clinical research. He holds an impressive record of 21 years of federal and contract grant funding in schizophrenia clinical research most in the area of medication adherence. Among his most recent accomplishments, he served as Co-PI, along with Dr. Scott Stroup, at Columbia and Dr. Joseph P. McEvoy at Duke on a recently completed \$11 million NIMH ACLAIMS trial. He is

currently in final contracting stage of an investigator-initiated, 4-year, multi-site grant with Otsuka Pharmaceuticals, extending his focus on adherence research in schizophrenia.

Matt Byerly's scientific work has been dedicated to research in practical areas of medication management which make a difference to individuals with schizophrenia, arguably the most serious mental illness. Antipsychotic drugs are available and commonly used in schizophrenia, however, non-adherence is high. Dr. Byerly was one of the first research clinicians who asked (and now answered) what is the adherence rate of patients with schizophrenia to their antipsychotic medications. He found the adherence rate to be extremely low and that the low adherence rate was not at all anticipated by treating physicians. He developed and characterized the Brief Adherence Rating Scale (BARS) as a tool to reliably assess lack of medication adherence, now a UTSW 'invention' in the public domain and the best respected tool for this purpose. In a recent study, he showed that those 60% of non-responding individuals with schizophrenia who had a BARS score <66% (non-adhering patients) had a clinical response to 'long acting injectable' antipsychotic meds, whereas only 34% of schizophrenic individual with a BARS score >66% (already adherent) responded. This BARS scale is now standard for inclusion within federal and industry outpatient trials.

Clinical Excellence:

Throughout his career at UT Southwestern, Dr. Matthew Byerly's primary clinical work has been in clinical research and clinical supervision. He contributes to our clinical excellence by training superb clinicians and imparting his very specialized expertise on our future practitioners. He currently sees ambulatory patients at the Psychiatry Faculty Clinic at BL7 for one half-day session per week. His work there has received very positive Press Ganey feedback. He has consistently met his productivity standards at each of the clinical sites to which he has been assigned. In the Faculty Clinic in FY13, he had 336 tRVUs against a standard of 375; for FY12, he had 214 tRVUs against a standard of 155; for FY11 he had 185 wRVUs against a standard of 149. In previous years, his clinical effort was higher and he also saw patients in the Parkland Outpatient Psychiatry Clinic (POPC); he had a 15% commitment at POPC from September 2010 through March 2012. For his work in POPC in FY12, he had wRVUs of 524.61 against a standard of 232; for FY11 in POPC, he had wRVUs of 695.88 against a standard of 432.

Dr. Byerly has recently been named Medical Director for the Fragile X Syndrome Program, a new practice he is developing within the Center for Autism and Developmental Disorders that will focus on patients suffering from this genetically-defined, Autism-spectrum developmental disorder. While Texas lags behind many states in the number of available clinics specializing in Fragile X care, UT Southwestern is home to cutting-edge Fragile X research. Developing a clinical site here is both appropriate and necessary. Dr. Byerly will use his clinical and administrative expertise in the development of this clinic.

Educational Excellence:

Dr. Byerly has been very active in our educational programs since joining our faculty. He has served as Associate Training Director in our residency program since 2006. He continues to increase his

academic activities in education, including publication and leading or co-leading multiple workshops at national meetings.

As Associate Program Director, Dr. Byerly oversees the didactics curriculum, the required scholarly project, and the research track. Over the past three years Dr. Byerly has completely reconstructed our didactics curriculum. He is determined to be 'evidence based' not just in the content of what we teach, but in terms of how we teach as well. He began by reviewing the literature on efficacy of educational methods and interventions and then led a task force of residents, junior faculty, and senior faculty to reinvent our curriculum. The result has been a series of innovations and trials resulting in a very exciting and highly successful program. Dr. Byerly has studied the outcomes of each intervention, not only in terms of resident satisfaction, but by actually doing pre-and-post testing on knowledge and the retention of knowledge. The resulting program includes a variety of teaching modalities, each used for a particular kind of content deemed most appropriate to that approach – traditional seminars, a journal club, case conferences, and a tutorial session. For the tutorials, 3-4 residents are assigned preparatory study materials. They then meet with a faculty tutor for an hour to work on the reinforcement and application of a body of material they have studied. We do not know of any other psychiatry residency using this format, and Dr. Byerly will be presenting this work at the annual meeting of the American Association of Directors of Psychiatry Residency Training in March 2014. Dr. Brenner, the Residency Program Director, notes "Dr. Byerly is responsible for our program now having a national reputation for excellence and innovation in didactic curricula development."

Dr. Byerly has also led a transformation of our research residency track over the past four years, creating a new structure of mentoring and a new emphasis on translational neuroscience and clinical research. He is a highly valued mentor to the research track residents, and an important part of the reason that two recent graduates of the track have successfully made the move onto our own faculty. During the residency interview season, Dr. Byerly makes himself available every Monday and Friday (our interview days) and meets with every applicant who expresses an interest in a career in research. While the research track is intended for residents who look to a future as principal investigators, Dr. Byerly is determined that all our residents not only learn research methods and critical appraisal of research literature, but also that all have an experience of doing a scholarly project before graduation. He created a poster session for our graduating residents, where each presents their project, and this has become a highlight of our academic calendar.

In addition to serving as a leader in our education programs, Dr. Byerly is an outstanding teacher and generous mentor. He does more direct teaching hours in the curriculum than any other instructor, and his resident ratings demonstrate that year after year he remains one of the residents' favorite teachers. He has, in fact, received six resident Teacher of the Year awards, five of which were here at UT Southwestern.

The predominance of his didactics scores fall in excellent or good, with a few scattered neutral scores. Comments did evidence marked improvement, specifically in the Clinical Neuroscience lectures. Some comments included: "Engaging style. Helpful lecture but could be somewhat more concrete;" "Great direction and guidance from Dr. Byerly, but difficult material and difficult with different residents;" "These sessions continue to improve. The group format seems to be encouraging more of us to engage in

discussion of each question rather than having people just not participate. Thanks for your work on this!"

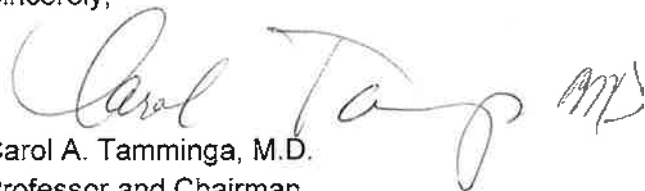
The evaluations of his clinical supervision vary, from superior in some areas to below average in others. We were pleased to see that Dr. Byerly's supervision style invited comprehensive feedback from his trainees. Though not all were positive, the comments received were specific and always included both positive and constructive comments. His noted weaknesses, such as hyper-attention to detail and control of treatment plans, also speak to his vigilance as a clinician and commitment to patient care. Some comments from his trainees include, "His comfort with and knowledge of the 'research world,' including digestion and application of research literature, is impressive. Despite these strengths, his biggest strength is his commitment and passion for teaching, in which he is very appreciated by residents and students." This comment truly embodies the whole of Dr. Byerly's career: He is a stellar researcher who knows how to translate his studies into clinical care and also effectively impart knowledge to new clinician-educators.

Service and Citizenship:

In addition to his important contributions to research and education here at UT Southwestern, Dr. Byerly gives generously of his time to support educational, clinical and research initiatives in our department and the medical school. Dr. Byerly has made great contributions to the development of many junior faculty, recruiting them to teach, teaching them to teach, and then providing mentoring and support for those who wish to deepen their involvement in education and take on the direction of segments of the curriculum (examples include Dr. Molly Camp and Dr. Lia Thomas). Beyond the medical school, Dr. Byerly offers his expertise to Parkland, through service on the Pharmacy and Therapeutics Psychiatry Subcommittee, and at a national level, through his involvement in the Clinical Antipsychotic Trials of Intervention (CATIE) Network and the FDA Psychopharmacologic Drugs Advisory Committee. He is on the editorial board of the *Journal of Clinical Psychopharmacology* and is an *ad hoc* reviewer for numerous impactful journals such as *Biological Psychiatry*, *Archives of General Psychiatry*, and *the American Journal of Psychiatry*. In short, Dr. Byerly is a passionate and dedicated clinical scholar and educator, whose work is significant. He is indeed the brand of clinical researcher that has and will continue to represent our department and UT Southwestern well throughout the medical community. His dedication to our educational programs is constant and invaluable.

I recommend Dr. Matthew Byerly without reservation for promotion from Associate Professor to Professor on the Clinical Scholar Track.

Sincerely,



Carol A. Tamminga, M.D.
Professor and Chairman
Department of Psychiatry

Curriculum vitae

Date Prepared: October 30, 2013

Name: Matthew Byerly, M.D.

Office Address: 6363 Forest Park Road, Suite 651
Dallas, TX 75390-8828

Work Phone: (214) 648-5290

Work E-Mail: matt.byerly@utsouthwestern.edu

Work Fax: (214) 648-5323

Place of Birth: Tucson, Arizona

Education

Year	Degree (Honors)	Field of Study (Thesis advisor for PhDs)	Institution
1986	B.S.	Biology	University of Arizona
1990	M.D.	Medicine	University of Arizona College of Medicine

Postdoctoral Training [*Include residency/fellowship*]

Year(s)	Titles	Specialty/Discipline (Lab PI for postdoc research)	Institution
1990-1994	N/A	Psychiatry Residency	University of Florida College of Medicine
1993-1994	N/A	Fellowship in Schizophrenia Research	University of Florida College of Medicine

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
1994-1995	Clinical Instructor	Psychiatry	University of Florida College of Medicine
1995-1997	Assistant Professor	Psychiatry	University of Florida College of Medicine
1997-1998	Assistant Professor	Psychiatry	University of Arkansas for Medical Sciences
1998-2007	Assistant Professor	Psychiatry	University of Texas Southwestern Medical Center
2007-present	Associate Professor	Psychiatry	University of Texas Southwestern Medical Center

Current Licensure and Certification

Licensure

Texas State Medical License

Board and Other Certification

Diplomate, National Board of Medical Examiners

Diplomate, American Board of Psychiatry and Neurology (Psychiatry)

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
1985-1986	Premedical Honor Society	Alpha Epsilon Delta
1986-1990	Scholarship for Academic Excellence (Medical School)	E. Blois du Bois Foundation
1990	Excellence of Clinical Performance in the Field of Psychiatry (Medical School)	Boris Zemsky Scholarship Foundation
1990	Outstanding Neurology Student of the Year	Department of Neurology, University of Arizona College of Medicine
1994-1995	Chief Resident's Faculty Teacher of the Year Award (for entire Department)	Department of Psychiatry, University of Florida College of Medicine
1996-1998	NARSAD Young Investigator Award	National Alliance for Research on Schizophrenia and Depression
1998-1999	Faculty Teacher of the Year Award (2nd year resident class)	Department of Psychiatry, University of Texas Southwestern Medical Center
1998-1999	Faculty Teacher of the Year Award (3 rd year resident class)	Department of Psychiatry, University of Texas Southwestern Medical Center
1999-2000	Faculty Teacher of the Year Award (3 rd year resident class)	Department of Psychiatry, University of Texas Southwestern Medical Center
2000-2001	Faculty Teacher of the Year Award (3 rd year resident class)	Department of Psychiatry, University of Texas Southwestern Medical Center
2011-2012	Faculty Teacher of the Year Award (3 rd year resident class)	Department of Psychiatry, University of Texas Southwestern Medical Center

Appointments at Hospitals/Affiliated Institutions

<u>Past</u>			
Year(s)	Position Title	Department/Division	Institution
1994-1995	Chief, Psychotic Disorders Inpatient Unit	Psychiatry	Shands Hospital/University of Florida College of Medicine
1994-1996	Director, Psychotic Disorders Outpatient Clinic	Psychiatry	Gainesville VAMC/ University of Florida College of Medicine
1994-1997	Director, Clozapine Treatment Team	Psychiatry	Gainesville VAMC/ University of Florida College of Medicine
1996-1997	Director, Psychotic Disorders Inpatient/Outpatient Firm	Psychiatry	Gainesville VAMC/ University of Florida College of Medicine
1997-1998	Director, Psychotic Disorders Case Management Program	Psychiatry	North Little Rock VAMC/University of Arkansas for Medical Sciences
1998-1999	Inpatient Attending, Mental Health Connections Clinical Program	Psychiatry	University of Texas Southwestern Medical Center
1999-2000	Associate Director & Attending, Adult Outpatient Psychiatry Clinic	Psychiatry	Parkland Memorial Hospital/ University of Texas Southwestern Medical Center
2008-2009	Attending, Consultation Liaison Service	Psychiatry	Parkland Memorial Hospital/ University of Texas Southwestern Medical Center
2009-2012	Attending, Adult Outpatient Psychiatry Clinic	Psychiatry	Parkland Memorial Hospital/ University of Texas Southwestern Medical Center
<u>Current</u>			
Year(s)	Position Title	Department/Division	Institution
	None		

Major Administrative/Leadership Positions

Year(s)	Position Title	Institution
1994-1995	Chief, Psychotic Disorders Inpatient Unit	University of Florida College of Medicine, Shands Hospital

1994-1996	Chief, Psychotic Disorders Outpatient Clinic	Gainesville VAMC/University of Florida College of Medicine
1994-1997	Director, Clozapine Treatment Team	Gainesville VAMC/University of Florida College of Medicine
1996-1997	Director, Psychotic Disorders Inpatient/Outpatient Firm	Gainesville VAMC/University of Florida College of Medicine
1997-1998	Director, Psychotic Disorders Research Program	North Little Rock VAMC/University of Arkansas For Medical Sciences
1997-1998	Director, Psychotic Disorders Case Management Program	North Little Rock VAMC/University of Arkansas For Medical Sciences
1998-present	Director, Schizophrenia Research Program	University of Texas Southwestern Medical Center
2006-present	Associate Residency Training Director for Research and the Didactic Curriculum	University of Texas Southwestern Medical Center
2013-present	Medical Director, Adult Fragile X Syndrome Program	University of Texas Southwestern Medical Center

Committee Service (*Member, unless noted otherwise*)

Year(s)	Name of Committee	Institution/Organization
<u>UTSW</u>		
2001-2002 & 2005-2006	Psychiatry Department Retreat Committee	University of Texas Southwestern Medical Center
Full-time Member 2003-2006	Institutional Review Board (IRB) Member	University of Texas Southwestern Medical Center
<u>Hospital</u>		
1994-1997	Chair, Clozapine Treatment Team	Gainesville VAMC/University of Florida College of Medicine
1995-1996	Co-Chair, Clinical Paths Task Force (Dept. of Psychiatry)	University of Florida College of Medicine
1995-1996	Co-Chair, Clinical Documentation Committee (Dept. of Psychiatry)	University of Florida College of Medicine
1995-1996	Chair, Psychiatry Reorganization Task Force	Gainesville VAMC/University of Florida College of Medicine
1995-1996	Psychiatry Reorganization Committee	Gainesville VAMC/University of Florida College of Medicine
1995-1996	Inpatient Psychiatry Planning Committee	University of Florida/Shands Teaching Hospital
1997	Patient Commitment Task Force	North Little Rock VAMC/University of Arkansas for Medical Sciences
1997	Chair, Committee on Guidelines for Using Newer Antipsychotics	North Little Rock VAMC/University of Arkansas for Medical Sciences

1998	Resident Research Committee	University of Arkansas for Medical Sciences
2004-present	Parkland Memorial Hospital Pharmacy and Therapeutics Psychiatry Subcommittee	Parkland Memorial Hospital/ University of Texas Southwestern Medical Center
<u>National/International</u>		
2004-2009	Scientific Advisory Board, Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) Network	NIMH
2009-2012	Food and Drug Administration Psychopharmacologic Drugs Advisory Committee	FDA

Professional Societies

Dates	Society Name, member
2001-2003	American Psychiatric Association
	Committees
	Academic Consortium (APA-sponsored group of leading physician researchers acting as federal mental health research advocates in Washington, D.C.)

Editorial Activities

Year(s)	Journal Name
<u>Editor/Associate Editor</u>	
	None
<u>Editorial Board</u>	
2010-present	Journal of Clinical Psychopharmacology
<u>Ad Hoc Reviewer</u>	
2000-present	Archives of General Psychiatry
2000-present	American Journal of Psychiatry
2000-present	Biological Psychiatry
2000-present	Journal of Psychiatric Research
2000-present	Journal of Clinical Psychiatry
2000-present	Journal of Clinical Psychopharmacology
2000-present	Schizophrenia Bulletin
2000-present	Neuropsychopharmacology
2000-present	Clinical Immunology and Immunopathology
2000-present	Psychosomatics
2000-present	Clinical Drug Investigation
2000-present	Journal of Clinical Epidemiology

Invited Lectures [*Since last promotion/appointment*]

Year(s)	Title	Location
<u>International</u>		
	None	
<u>National</u>		
2007	Clinical Dialogue: Update on Psychopharmacology (CME activity)	Los Angeles, CA
2007	CATIE Investigator Educational Series (CME activity)	Long Beach, CA
2007	CATIE Investigator Educational Series (CME activity)	St. Louis, MO
2007	National Forum on Advances in Psychopharmacology and Recovery in Severe Mental Illness (CME activity)	Miami, FL
2011	The University of Texas Health Science Center at Houston Department of Psychiatry Grand Rounds: “Antipsychotic Medication Adherence in Schizophrenia.” (CME activity)	Houston, TX
<u>Regional/Local</u>		
2007	CATIE Investigator Educational Series (CME activity)	Houston, TX
2008	Atypical Antipsychotics: Therapeutics and Ethics (CME activity)	Ft. Worth, TX
2011	The University of Texas Health Science Center at Houston Department of Psychiatry Grand Rounds: “Antipsychotic Medication Adherence in Schizophrenia.” (CME activity)	Houston, TX
2013	DSM-5: Psychotic and Mood Disorders.” (CME activity)	Dallas, TX

Service to the Community

Year(s)	Role	Organization or institution
2012	Guest Speaker at Monthly Organization Meeting, “Update on Antipsychotic Treatments”	North Texas Society of Psychiatric Physicians
Invited speaker, Provided 2-hour presentation/question answer period related to topic		
2013	Guest Speaker of Texas Fragile X Foundation Meeting	Texas Fragile X Foundation

Guest Speaker of Educational Program about Fragile X Syndrome provided by University of Texas Southwestern Medical Center

Bibliography

Peer-Reviewed Publications

Original Research Articles

1.	Byerly M , Weber M, Brooks D, Casey SB, Elliot S, Cross J, McConnell D, Hawkins J. Cost Evaluation of Risperidone Versus Olanzapine: A Database and Chart Review Study. <i>Psychiatry Serv</i> 2003; 54(5):742-4.
2.	Stroup TS, McEvoy JP, Swartz MS, Byerly MJ , Glick I, Canive J, McGee M, Simpson G, Stevens M, Lieberman JA. The NIMH-CATIE Project: Schizophrenia Trial Design and Protocol Development. <i>Schiz Bull</i> 2003; 29(1):15-31.
3.	Byerly M , Lescouflair E, Carmody T, Weber M, Holland R, Fisher R. An Open-Label Trial of Quetiapine for Antipsychotic-Induced Sexual Dysfunction. <i>J Sex Marital Ther</i> 2004; 30:325-332.
4.	Montgomery J, Byerly MJ , Carmody T, Li G, Varghese F, Holland R. Industry Sponsored Research Involving Newer Antipsychotic Agents for the Treatment of Schizophrenia: Does Source of Funding Influence Design and Outcome? <i>Control Clin Trials</i> 2004; 598-612.
5.	Byerly M , Fisher R, Whatley K, Holland R, Varghese F, Carmody T, Magouirk B, Rush AJ. A Comparison of Electronic Monitoring vs. Clinician Rating of Antipsychotic Adherence in Outpatients with Schizophrenia. <i>Psychiatry Res</i> 2005; 133:129-33.
6.	Byerly M , Goodman W, Acholonu W, Bugno R, Rush AJ: Obsessive Compulsive Symptoms in Schizophrenia: Frequency and Clinical Features. <i>Schizophr Res</i> 2005; 76(2-3):309-16.
7.	Byerly M , Fisher R, Rush AJ, Holland R, Varghese F. A Trial of Compliance Therapy in Outpatients With Schizophrenia or Schizoaffective Disorder. <i>J Clin Psychiatry</i> 2005; 66:997-1001.
8.	Byerly M , Nakonezny P, Fisher R, Magouirk B, Rush AJ. An Empirical Evaluation of the Arizona Sexual Experience Scale and a Simple, One-item, Screening Test for Assessing Antipsychotic-Related Sexual Dysfunction in Outpatients with Schizophrenia and Schizoaffective Disorder. <i>Schizophr Res</i> 2006; 81:311-316.
9.	Nakonezny P, Byerly M . Electronically-Monitored Adherence in Outpatients with Schizophrenia or Schizoaffective Disorder: A comparison of First- vs. Second-Generation Antipsychotics. <i>Schizophr Res</i> 2006; 82:107-114.
10.	Byerly M , Nakonezny P, Magouirk B, Carmody T, Fisher R, Rush AJ. Sexual Dysfunction Associated with Second-Generation Antipsychotics in Outpatients with Schizophrenia or Schizoaffective Disorder: An Empirical Evaluation of Olanzapine, Risperidone, and Quetiapine. <i>Schizophr Res</i> , 2006 May 26.
11.	Byerly M , Nakonezny P. Adherence Therapy Does Not Improve Quality of Life in People with Schizophrenia at 1 year. <i>Evid Based Ment Health</i> 2007; 10:75.
12.	Byerly M , Thompson A, Carmody T, Bugno R, Kashner TM, Rush AJ. Validity of Electronically Monitored Medication Adherence and Conventional Adherence Measures in Schizophrenia. <i>Psychiatr Serv</i> 2007; 58:844-847.
13.	Nakonezny P, Byerly M , Rush AJ. The Relationship between Serum Prolactin Level and

	Sexual Functioning among Male Outpatients with Schizophrenia and Schizoaffective Disorder: A Randomized Double-Blind Trial of Risperidone vs. Quetiapine. <i>J Sex Mar Ther</i> 2007; 33(3):203-16.
14.	Nakonezny, PA., Byerly, M.J. , & Rush, AJ. Electronic Monitoring of Antipsychotic Medication Adherence in Outpatients With Schizophrenia or Schizoaffective Disorder: An Empirical Evaluation of Its Reliability and Predictive Validity. <i>Psychiatry Res</i> 2008; 157(1-3):259-63.
15.	Byerly M , Nakonezny P. The Brief Adherence Rating Scale (BARS) Validated Against Electronic Monitoring in Assessing the Antipsychotic Medication Adherence of Outpatients with Schizophrenia and Schizoaffective Disorder. <i>Schiz Res</i> 2008; 100(1-3):60-9.
16.	Byerly M , Nakonezny P, Bugno R, Boles J. A Randomized, Double-Blind, Pilot Trial of Switching to Quetiapine vs. Risperidone Continuation in Outpatients with Risperidone-Associated Sexual Dysfunction. <i>Psychiatry Res</i> 2008; 159(1-2):115-20.
17.	Byerly MJ , Marcus RN, Tran QV, Eudicone JM, Whitehead R, Baker RA. Effects of Aripiprazole On Prolactin Levels In Subjects With Schizophrenia During Cross-Titration With Risperidone or Olanzapine: Analysis of A Randomized, Open-Label Study. <i>Schizophr Res</i> 2009 Feb;107(2-3):218-22.
18.	Panelist Member for: Velligan DI, Weiden PJ, Sajatovic M, Scott J, Carpenter D, Ross R, Docherty JP. The Expert Consensus Guideline Series: Adherence Problems In Patients With Serious and Persistent Mental Illness. Expert Consensus Panel on Adherence Problems in Serious and Persistent Mental Illness. <i>J Clin Psychiatry</i> 2009;70 Suppl 4:1-46; quiz 47-8. Review.
19.	Byerly M , Nakonezny P, A Pilot Study to Determine A Prolactin Threshold that Identifies Improved Sexual Functioning When Switching from A Prolactin-Elevating To A Prolactin-Neutral Antipsychotic. <i>Clin Schiz and Rel Psychoses</i> 2010;3(4):209-216.
20.	Nakonezny PA, Hughes CW, Mayes TL , Yang-Sternweis KH, Kennard BD, Byerly MJ , and Emslie GJ. A Comparison of Various Methods of Measuring Antidepressant Medication Adherence Among Children and Adolescents With Major Depressive Disorder in a 12-week Open Trial of Fluoxetine. <i>J Child Adolesc Psychopharmacol</i> 2010;20(5):431-439.
21.	Bushong, M, Nakonezny PA, Byerly MJ . Subjective Quality of Life and Sexual Dysfunction in Outpatients with Schizophrenia or Schizoaffective Disorder. <i>J Sex Marital Ther</i> 2013;39(4):336-46.
22.	Nakonezny, P.A., Byerly, M.J. , and Pradhan, A. The Effect of Providing Patient-Specific Electronically Monitored Antipsychotic Medication Adherence Results On The Treatment Planning of Prescribers of Outpatients With Schizophrenia. <i>Psychiatry Res.</i> 2013;208(1):9-14.
23.	Stroup TS, Byerly MJ , Nasrallah HA, Ray N, Khan AY; Lamberti JS, Glick ID; Steinbook RM; McEvoy JP; Hamer RM. Effects of Switching From Olanzapine, Quetiapine, and Risperidone to Aripiprazole on 10-year Coronary Heart Disease Risk and Metabolic Syndrome Status: Results From A Randomized Controlled Trial. <i>Schiz Res</i> 2013;146(1-3):190-5.
24.	Bannister E, Nakonezny P, Byerly MJ . Curricula for Teaching Clinical Practice Guidelines in US Psychiatry Residency and Child and Adolescent Fellowship Programs: A National Survey of Study of Program Directors. <i>Academic Psychiatry</i> , in press.

Reviews, Chapters, Monographs and Editorials

1.	Evans DL, Byerly MJ , Greer RA: Secondary Mania: Diagnosis and Treatment. <i>J Clin Psychiatry</i> 1995; 56 (3,suppl):31-37.
----	---

2.	Byerly MJ and DeVane CL: Pharmacokinetics of Clozapine and Risperidone: Review of Recent Literature. <i>J Clin Psychopharmacol</i> 1996; 16:177-187.
3.	Byerly MJ , Weber M, Snow L, Worley M, Lescouflair E. Antipsychotic Medications and the Elderly: Effects on Cognition and Implications for Use. <i>Drugs and Aging</i> 2001; 18:45-61.
4.	Byerly M , Suppes T, Pikalov A, Baker R. Clinical Implications of Antipsychotic-Induced Hyperprolactinemia in Patients With Schizophrenia Spectrum or Bipolar Spectrum Disorders: Recent Developments and Current Perspectives. <i>J Clin Psychopharmacol</i> 2007; 27(6):639-661.
5.	Byerly M , Nakonezny P, Lescouflair E. Antipsychotic Medication Adherence in Schizophrenia. <i>Psychiatry Clin North Am</i> 2007; 30(3):437-52.
6.	Glazer WM, Byerly MJ . Tactics and Technologies To Manage Non-adherence In Patients With Schizophrenia. <i>Curr Psychiatry Rep</i> 2008 Aug;10(4):359-69.
7.	Byerly MJ , Goodman WK, Cuadros C: Comorbid Schizophrenia: Implications For Treatment of OCD. Chapter in Obsessive Compulsive Disorder: Challenges in Treatment. Goodman WK, Rudorfer M, Maser J (eds), Lawrence Erlbaum Associates, Inc, pgs. 69-83, 2000.
8.	Goodman WK, McDougle CJ, Byerly MJ , Murphy TK, Ward HE: New Approaches to Treatment-Refractory Obsessive Compulsive Disorder. Chapter 30 in Book IV: Pharmacotherapy for Mood, Anxiety and Cognitive Disorders. Montgomery S and Holbreich U (eds), American Psychiatric Press, Inc, pgs. 479-498, 2000.
9.	Buckley PF, Foster AF, Byerly MJ : Quetiapine. Chapter in: The American Psychiatric Publishing Essentials of Clinical Psychopharmacology, 3rd Edition. Schatzberg A and Nemeroff CB (eds), American Psychiatric Press, Inc, pgs. 275-290, 2013.

Case Reports

1.	Byerly MJ , Greer RA, Evans DL: Behavioral Stimulation Associated With Risperidone Initiation (letter). <i>Am J Psychiatry</i> 1995; 152:1096-1097.
2.	Byerly MJ , Christensen RC, Evans DL: Delirium Associated With A Combination of Sertraline, A Neuroleptic, and Benztropine (letter). <i>Am J Psychiatry</i> 1996; 153:965-966.
3.	Byerly MJ , Christensen, RC: High Doses of Sertraline For Treatment-Resistant Obsessive-Compulsive Disorder (letter). <i>Am J Psychiatry</i> 1996 ;153:1232.
4.	Christensen RC, Byerly, MJ : A Case of Sertraline-Induced Stuttering (letter). <i>J Clin Psychiatry</i> 1996; 16:92-93.
5.	Christensen RC, Byerly, MJ : Mandibular Dystonia Associated With The Combination of Sertraline and Metoclopramide (letter). <i>J Clin Psychiatry</i> 1996; 57:596.
6.	Dotd JE, Byerly MJ , Cuadros C, Christensen RC: Treatment of Risperidone-Induced Obsessive-Compulsive Symptoms with Sertraline (letter). <i>Am J Psychiatry</i> 1997; 154:582.

Proceedings of Meetings

1.	Phillips LL, Kuldau JM, Gautier ER, Zuffante P, Bauer RM, Byerly MJ , Mancuso AA, Leonard CM. Fluency Associated with Size of Broca's Area in Schizophrenia: <u>Abstracts of the Annual Meeting of the Society for Neuroscience</u> , Washington D.C., 1996.
2.	Byerly MJ and Goodman WK. Adjunctive Pindolol In Fluoxetine Treated Patients With Obsessive Compulsive Disorder. <u>Abstracts of the 36th Annual Meeting of the American College of Neuropsychopharmacology</u> , Waikoloa, Hawaii, 1997.
3.	Byerly MJ , Kablinger A, Acholonu W, Goodman WK: Obsessive Compulsive Symptoms in Schizophrenia: Frequency and clinical features. <u>Presented at the 2nd Annual International</u>

	<u>Meeting - Schizophrenia: From Molecule to Public Policy, Santa Fe, New Mexico, October 10, 1998.</u>
4.	Byerly MJ , Weber M, Brooks D, Elliot S, Cross J, McConnell D, Hawkins J. Cost Evaluation of Risperidone Versus Olanzapine: A Database and Chart Review. <u>Presented at the American Psychiatric Association Annual Meeting, Washington, D.C., May 15-20, 1999.</u>
5.	Byerly M , Thompson A, Brooks D, Carmody T, Acholonu W, Karson C, Kashner M, Kuldau J, Lacro J, Nasdahl C, Owen R, Holland R. Cost-outcomes of Risperidone vs. Olanzapine: A Computer Database and Chart Review Comparison at Five Veterans Administration Sites. <u>Presented at the Institute on Psychiatric Services Annual Meeting, Orlando, FL, October 12, 2001.</u>
6.	Byerly M , Thompson A, Brooks D, Carmody T, Acholonu W, Karson C, Kashner M, Kuldau J, Lacro J, Nasdahl C, Owen R, Holland R. Cost-outcomes of Risperidone vs. Olanzapine: A Computer Database and Chart Review Comparison at Five Veterans Administration Sites. <u>Presented at the 11th Biennial Winter Workshop on Schizophrenia, Devos, Switzerland, February 24 – March 1, 2002.</u>
7.	Byerly M , Lescouflair E, Carmody T, Weber T, Holland R, Fisher R. An Open-Label Trial of Quetiapine for Antipsychotic-Induced Sexual Dysfunction. <u>Presented at the Annual Meeting of the College of Psychiatric and Neurologic Pharmacists, Seattle, Washington, April 20, 2002.</u>
8.	Byerly M , Lescouflair E, Carmody T, Weber T, Ph.D., Holland R, Fisher R. An Open-Label Trial of Quetiapine for Antipsychotic-Induced Sexual Dysfunction. <u>Presented at the 42rd Annual New Clinical Drug Evaluation Unit (NCDEU) Meeting, Boca Raton, FL, June 12, 2002.</u>
9.	Byerly M , Fisher R, Rush AJ, Holland R, Varghese F. Comparison of Clinician vs. Electronic Monitoring of Antipsychotic Adherence in Schizophrenia. <u>Presented at the American College of Neuropsychopharmacology (ACNP) Meeting, San Juan, Puerto, Rico, December 10, 2002.</u>
10.	Byerly M , Thompson A, Carmody T, Bugno R, Erwin T, Kashner T, Rush A. Electronic-Monitored Medication Adherence In Outpatients With Schizophrenia or Schizoaffective Disorder: Association with Symptoms, Quality of Life, and Cognition. <u>Presented at the 158th Annual Meeting of the American Psychiatric Association. Atlanta, Georgia, 2005.</u>
11.	Byerly M , Nakonezny P, Bugno R, Boles J, Rush A. A Randomized, Double-Blind Pilot Trial of Switching to Quetiapine vs. Risperidone Continuation in Outpatients With Risperidone-Associated Sexual Dysfunction. <u>Presented at the 159th Annual Meeting of the American Psychiatric Association. Toronto, Ontario, Canada, 2006.</u>
12.	Wilson W, McEvoy J, Byerly M , Keefe R, Masand P. Effects of Risperidone Microspheres on Polypharmacy and Cognitive Function. <u>Presented at the 45th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), Hollywood, FL, December 3-7, 2006.</u>
13.	Byerly MJ , Brenner A. Using APA Practice Guidelines in Resident Didactic Education. <u>Presented at the Annual Meeting of the American Association of Directors of Psychiatric Residency Training, New Orleans, LA, March 12-15, 2008.</u>
14.	Byerly MJ (Workshop Chair), Chrisman A, Forstein M, Stock S. Using Practice Guidelines in Psychiatry Residency and Fellowship Education. <u>Workshop at the Annual Meeting of the American Association of Directors of Psychiatric Residency Training, Orlando, FL., March 10-14, 2010.</u>
15.	Bannister E, Byerly MJ . Curricula for Teaching Clinical Practice Guidelines in US Psychiatry Residency and Child and Adolescent Fellowship Programs: A National Survey of Study of Program Directors. <u>Presented at the Annual Meeting of the American Association of Directors of Psychiatric Residency Training, Austin, TX, March 2-5, 2011.</u>
16.	Byerly MJ , Brenner A, Sams CL, Surber C. Increasing Scholarly Activity Among Residents. <u>Workshop at the Annual Meeting of the American Association of Directors of Psychiatric</u>

Residency Training, Ft Lauderdale, FL., March 6-9, 2013.
--

Clinical Practice Guidelines

1.	Panelist Member. The Texas Medication Algorithm Project Antipsychotic Algorithm for Schizophrenia: 2003 Update
2.	Panelist Member. "The Expert Consensus Guideline series: adherence problems in patients with serious and persistent mental illness. Expert Consensus Panel on Adherence Problems in Serious and Persistent Mental Illness." <i>J Clin Psychiatry</i> . 2009; 70 Suppl 4:1-46; quiz 47-8. Review.
3.	Panelist Member. "Translating the Psychopharmacology of Antipsychotics to Individualized Treatment for Severe Mental Illness: A Roadmap." Panel recommendations published in <i>J Clin Psychiatry</i> 2007; 68:6-46 (supp7).

TEACHING PORTFOLIO

A. Medical and graduate school didactic and small group teaching

Date	Title	Location
2007-2012	Instructor, 3 rd year Medical Student Psychiatry Didactics (Side effects of Antipsychotics, 6 hourly sessions/year)	University of Texas Southwestern Medical Center
2007-present	“Colleges” Psychiatry Mentor for both 1 st and 2 nd year medical student groups	University of Texas Southwestern Medical Center

B. Dissertation committees

Not Applicable

C. Qualifying examination committees

Not Applicable

D. Committees concerned with medical and graduate student education

1992-1993	Vice-President, Dept. of Psychiatry Resident Association	University of Florida College of Medicine
1993	Department of Psychiatry Resident Selection Committee	University of Florida College of Medicine
1993-1994	Department of Psychiatry Graduate Education Committee	University of Florida College of Medicine

E. Graduate student rotations

Not applicable

F. Medical Student Rotations

Date	Title	Location
1994-1995	Psychotic Disorders Inpatient Service MS3-4. 12 months/year.	Shands Hospital/University of Florida College of Medicine
1994-1997	Psychotic Disorders Inpatient Service. MS3-4. 12 months/year.	Gainesville VAMC/University of Florida College of Medicine
1998-1999	Dual Diagnosis Inpatient Service. MS3-4. 12 months/year.	Mental Health Connections Clinical Program/University of Texas Southwestern Medical Center

2008-2009	Consultation Liaison Service. MS3-4. 12 months/year.	Parkland Memorial Hospital/University of Texas Southwestern Medical Center
2009-2012	Psychiatry Outpatient Clinic MS-4. 6 hrs/wk. 12 months/year.	Parkland Memorial Hospital/University of Texas Southwestern Medical Center

G. Graduate student trainees

Not applicable

H. Postgraduate medical education

Clinical Supervision		
Date	Title	Location
1994-1995	Psychotic Disorders Inpatient Service PGY1-2. 12 months/year.	Shands Hospital/University of Florida College of Medicine
1994-1997	Psychotic Disorders Inpatient Service PGY1-2. 12 months/year.	Gainesville VAMC/University of Florida College of Medicine
1998-1999	Dual Diagnosis Inpatient Service PGY1-2. 12 months/year.	Mental Health Connections Clinical Program/UTSW
2006-present	Psychiatry Residency Education Committee	University of Texas Southwestern Medical Center
2006-present	Associate Residency Training Director for Research and the Didactic Curriculum	University of Texas Southwestern Medical Center
2006-present	Resident Education Committee	University of Texas Southwestern Medical Center
2006-present	Director, Psychiatry Review Course for UTSW Neurology Residents	University of Texas Southwestern Medical Center
2011-2013	Chair, Resident Didactic Curriculum Redesign Committee	University of Texas Southwestern Medical Center
2013-present	Clinician Educator Track Planning Committee	University of Texas Southwestern Medical Center
Resident Lectures		
Date	Title	Location
1998-present	Faculty Leader of various resident didactic sessions, which are distinct from activities below (currently approx. 40 hourly sessions/year).	University of Texas Southwestern Medical Center

2012-present	Psychiatry Resident Small Group Didactic Mentor (1 of 8 in Department). Approximately 40 hourly sessions/year.	University of Texas Southwestern Medical Center
2013-present	Faculty Leader, PGY-1 Basic Skills in Evaluating Research and Clinical Evidence. 18 sessions/year.	University of Texas Southwestern Medical Center
CME Lectures		
Date	Title	Location
2007	CME- Clinical Dialogue: Update on Psychopharmacology	Los Angeles, CA
2007	CME-CATIE (Clinical Antipsychotic Trials of Intervention Effectiveness) Investigator's Educational Series	Long Beach, CA; Houston, TX; & St. Louis, MO
2007	CME-National Forum on Advances in Psychopharmacology and Recovery in Severe Mental Illness	Miami, FL
2008	CME-Atypical Antipsychotics: Therapeutics and Ethics	Fort Worth, FL
2011	CME-UT Houston Department of Psychiatry Grand Rounds: "Antipsychotic Medication Adherence in Schizophrenia"	Houston, TX
2013	CME- UT Southwestern Medical Center Department of Psychiatry Grand Rounds: "Didactics Learning in Psychiatric Residency: Challenges and Future Directions"	Dallas, TX
2013	CME- DSM-5: Psychotic and Mood Disorders	Dallas, TX
Curriculum Development		
Date	Title	Location
2008	Project Director, Incorporating Practice Guidelines into Resident Didactic Education (Novel approach led to 1 poster and leading of 1 workshop at national meeting)	University of Texas Southwestern Medical Center
2012	Project Director, Use of Faculty Tutors in Small Group Didactic Learning (Novel approach submitted for workshop presentation at national meeting in March, 2014)	University of Texas Southwestern Medical Center

2013	Project Director, Incorporating new ACGME-ABPN Milestones in Resident Didactic Curriculum (Underway a year before Milestones are to be formally implemented. This experience will be submitted for national meeting in 2015)	University of Texas Southwestern Medical Center
------	--	---

I. Postdoctoral trainees

Not applicable

CLINICAL SERVICES RESPONSIBILITIES

My current clinical responsibilities (detailed in table below) are divided into two main areas: ambulatory practice and clinical research care. Several periods of my career have included greater clinical service responsibilities including: 80% between 1994-1997 and 50% between 1998-2002 and 2008-2009.

Weekly Clinical Practice of Dr. Byerly

	Monday	Tuesday	Wednesday	Thursday	Friday
Mornings	1-3 hours Bass Building BL 6 Care of clinical research patients				1-3 hours Bass Building BL 6 Care of clinical research patients
Afternoons	4 hours Bass Building BL 7 private patients		1-3 hours Bass Building BL 6 Care of clinical research patients		

Ambulatory Practice (10% time): I see ambulatory patients on Monday afternoons at the faculty clinic at BL7. I do general adult psychiatry, but referrals for my expertise in psychotic disorders comprise over half of my patients. Since taking on role as Medical Director of Fragile X Syndrome program, I have begun transitioning my focus to persons with Fragile X Syndrome. For most patients, I do combination therapy of medications and supportive psychotherapy. I see patients as frequently as once a week and infrequently as once every three months.

Clinical Care in my Schizophrenia Research Program (10-20% time): I have provided clinical care to research participants in protocols of my schizophrenia research program at UT Southwestern for nearly 15 years. This effort changes with the varied flow of study activities, but generally requires 10-20% of my effort. Treatments include medication management and supportive therapy.

GRANT SUPPORT

Grantor	Otsuka Pharmaceuticals (Contracting in process: investigator-initiated project)
Title of Project	A Randomized, Multi-site, Parallel-group, Rater-blind Study Comparing Response with Aripiprazole Once Monthly and Standard of Care Oral Antipsychotics in Non-adherent Outpatients with Schizophrenia Identified using the Brief Adherence Rating Scale
Role of nominee	PI
Total Amount of Award and Dates	\$5,600,000 ; Estimated 2014-2017
Grantor	Treatment and Evaluation Network for Trials in Schizophrenia
Title of Project	Clinical and Biomarker Assessment of Efficacy of Cognitive Remediation in Patients with Schizophrenia Stabilized on Lurasidone
Role of nominee	Local site PI
Total Amount of Award and Dates	\$98,066 ; 2011-2013
Grantor	Sunovion Pharmaceuticals
Title of Project	A Randomized, 6-week, Open-Label, Study Evaluating the Safety, Tolerability, and Efficacy of (omitted) for the Treatment of Schizophrenia or Schizoaffective Disorder in Subjects Switched from Other Antipsychotic Agents
Role of nominee	Local site PI
Total Amount of Award and Dates	\$41,488 ; 2010-2011
Grantor	Sunovion Pharmaceuticals
Title of Project	A 24-Week, Flexible-Dose, Open-label Extension Study of Subjects Switched to (omitted) for the Treatment of Schizophrenia or Schizoaffective Disorder
Role of nominee	Local site PI
Total Amount of Award and Dates	\$8,346 ; 2010-2011
Grantor	NIMH (R01-MH081234)
Title of Project	A Comparison of Long-Acting Injectable Medications in Schizophrenia (ACLAIMS)
Role of nominee	Co-Principal Investigator of Overall, Multi-site Study (award=\$11,309,446)

Total Amount of Award and Dates	\$420,217 (Co-PI role of Overall Study and local PI site role) ; 2009-2014
Grantor	HHSN-271-2009-00019-C
Title of Project	Recovery After Initial Schizophrenia Episode
Role of nominee	Consultant
Total Amount of Award and Dates	\$1,500 ;2009-2014
Grantor	Lundbeck
Title of Project	A randomized, double-blind, parallel-group, flexible-dose study exploring the neurocognitive effect of (and antipsychotic) versus (an antipsychotic) in patients with schizophrenia using the MATRICS Consensus Cognitive Battery (MCCB).
Role of nominee	Local site PI
Total Amount of Award and Dates	\$17,618 ;2009-2011
Grantor	NIMH (N01 MH90001)
Title of Project	Metformin in the treatment of antipsychotic-induced weight gain in schizophrenia (METS)
Role of nominee	Local site PI
Total Amount of Award and Dates	\$62,088 ; 2008-2010
Grantor	Foundation for the NIMH-1675
Title of Project	Clinical Management of Metabolic Problems in Patients with Schizophrenia: Switch to Aripiprazole vs. Continued Treatment with Olanzapine, Quetiapine, or Risperidone (CAMP).
Role of nominee	Local site PI
Total Amount of Award and Dates	\$174,428 ; 2007-2010
Grantor	NIMH (N01MH90001)
Title of Project	Maintain scientific and administrative infrastructure to conduct CATIE-approved clinical trials: Schizophrenia Trial Network
Role of nominee	Local site PI
Total Amount of Award and Dates	\$199,272 ; 2005-2009

Grantor	NIMH (R01 MH059312-03)
Title of Project	Effectiveness of Switching Antipsychotic Medications
Role of nominee	Local site PI
Total Amount of Award and Dates	\$45,000 ; 2005-2009
Grantor	Janssen Research Foundation (Investigator-initiated project)
Title of Project	Determining the Effects of Risperdal Consta in Patients with Psychotic Disorders and Incomplete Adherence
Role of nominee	Co-PI of 2-site Study
Total Amount of Award and Dates	\$158,410 ; 2004-2007
Grantor	AstraZeneca
Title of Project	A Multicenter, Open-Label, Flexible-dose, Parallel-group evaluation of ... of <i>two antipsychotics</i> in the Long-Term Treatment of Patients with Schizophrenia and Schizoaffective Disorder
Role of nominee	Local site PI
Total Amount of Award and Dates	\$263,117 ; 2003-2008
Grantor	AstraZeneca
Title of Project	<i>Antipsychotic</i> Trial of Efficacy and Tolerability of <i>3 newer antipsychotics</i> in Treatment of ...: A Randomized Double Blind 52 Week Comparison
Role of nominee	Local site Co-Investigator
Total Amount of Award and Dates	\$Data not available, estimated at \$80,000 ; 2003-2005
Grantor	NIMH (1 K23 MH64930-01A1)
Title of Project	Mentored Patient-Oriented Research Career Development Award (K-23).
Role of nominee	PI
Total Amount of Award and Dates	\$756,492 ; 2002-2007
Grantor	NIMH (N01MH90001)
Title of Project	Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE)
Role of nominee	Local site PI
Total Amount of Award and Dates	\$426,500 ; 2002-2005

Grantor	The State of Texas (Mental Health Connections Research Program) and Janssen Research Foundation (Investigator-initiated project)
Title of Project	Electronic Monitoring of Antipsychotic Adherence of Outpatients with Schizophrenia and Schizoaffective Disorder: An Evaluation of Clinical Utility
Role of nominee	PI
Total Amount of Award and Dates	\$286,349 ; 2002-2005
Grantor	The State of Texas (Mental Health Connections Research Program)
Title of Project	An Open Pilot Trial of Compliance Therapy for Outpatients with Schizophrenia or Schizoaffective Disorder
Role of nominee	PI
Total Amount of Award and Dates	\$184,401 ; 2001-2002
Grantor	The State of Texas (Mental Health Connections Research Program) and AstraZeneca Pharmaceuticals (Investigator-initiated project)
Title of Project	A Controlled Trial of Quetiapine for Antipsychotic-Induced Sexual Dysfunction
Role of nominee	PI
Total Amount of Award and Dates	\$184,130 ; 2001-2003
Grantor	Bristol-Myers Squibb
Title of Project	A Multicenter, Randomized, Double-Blind Safety and Tolerability Study of Flexible Doses of an <i>Investigational Antipsychotic</i> and a <i>newer antipsychotic</i> in the Treatment of Patients with Acute Schizophrenia.
Role of nominee	Local site PI
Total Amount of Award and Dates	\$Data not available, estimated at \$50,000 ; 2000-2002
Grantor	Bristol-Myers Squibb
Title of Project	A Multicenter, Randomized, Double-Blind Study of Flexible Doses of an <i>Investigational Antipsychotic</i> Versus a <i>traditional antipsychotic agent</i> in the Treatment of Patients with Treatment-Resistant Schizophrenia.
Role of nominee	Local site PI
Total Amount of Award and Dates	\$Data not available, estimated at \$50,000 ; 2000-2002
Grantor	Janssen Research Foundation (Investigator-initiated project)

Title of Project	Cost-effectiveness of Risperidone, Olanzapine, and Quetiapine: Comparison at Five VA Sites
Role of nominee	PI
Total Amount of Award and Dates	\$163,375 ; 999-2001
Grantor	Stanley Foundation
Title of Project	A 3-Month Acute, then 9-Month Follow-up Study of the Efficacy/Effectiveness of Clozapine vs. Quetiapine in Patients with Inadequate Response of Positive Symptoms to Risperidone or Olanzapine Treatment
Role of nominee	PI
Total Amount of Award and Dates	\$150,000 ; 1999-2001
Grantor	Pfizer Pharmaceuticals
Title of Project	A phase III randomized, placebo-controlled study evaluating the safety and outcome of treatment with an investigational antipsychotic in subjects with mania who are receiving lithium.
Role of nominee	Local site Co-PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000 ; 1999-2001
Grantor	Eli Lilly and Company
Title of Project	<i>An Investigational Antipsychotic</i> vs. Depakote in Acute Mania
Role of nominee	Local site Co-PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000 ; 1999-2001
Grantor	Janssen Research Foundation
Title of Project	Depot formulation of an <i>Investigational Antipsychotic</i> in the treatment of subjects with schizophrenia or schizoaffective disorder.
Role of nominee	Local site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$80,000 ; 1999-2002
Grantor	Pfizer Pharmaceuticals
Title of Project	6 week study to examine differences between 3 ways of switching from the drug Risperidone to an <i>Investigational Antipsychotic</i> for the treatment of schizophrenia or schizoaffective disorder, with the option of continued treatment with an <i>Investigational Antipsychotic</i> .

Role of nominee	Local site PI
Total Amount of Award and Dates	\$12,000 ; 1999-2001
Grantor	Janssen Research Foundation (Investigator-initiated project)
Title of Project	Cost-Effectiveness of Risperidone vs. Olanzapine: A Database and Chart Review
Role of nominee	PI
Total Amount of Award and Dates	\$10,000 over 1 year—1998
Grantor	Hoechst Pharmaceuticals
Title of Project	A multicenter, long term, safety study of <i>an investigational antipsychotic</i> in schizophrenic and schizoaffective subjects. Hoechst Pharmaceuticals Corp
Role of nominee	Local Site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000 ; 1998-2000
Grantor	Hoechst Pharmaceuticals
Title of Project	A multicenter, placebo and active control, double-blind randomized study of the efficacy and safety of <i>an investigational antipsychotic</i> in schizophrenic and schizoaffective patients. Hoechst Pharmaceuticals Corp
Role of nominee	Local Site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000,000 ; 1998-2000
Grantor	NARSAD Young Investigator Award and the University of Florida Division of Sponsored Research (competitive application)
Title of Project	Schizophrenia and Obsessive Compulsive Symptoms: Comorbidity and Treatment Implications
Role of nominee	PI
Total Amount of Award and Dates	\$78,000 ; 1996-1998
Grantor	The Upjohn Company
Title of Project	<i>An investigational antipsychotic</i> : Double-blind, Haloperidol-controlled, Safety and Dose-finding Study in the Treatment of Schizophrenia
Role of nominee	Local Site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000 ; 1996-1997

Grantor	Janssen Research Foundation
Title of Project	A Comparison of Risperidone and Haloperidol for Prevention of Relapse in Patients with Schizophrenia and Schizoaffective Disorders
Role of nominee	Local Site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$100,000 ; 1996-1997
Grantor	Boehringer Ingelheim/The Upjohn Company
Title of Project	Dose-Response Study of an <i>Investigational Antipsychotic</i> in Combination with Maintenance Haloperidol for the Treatment of the Negative Symptoms of Schizophrenia
Role of nominee	Local Site PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$25,000 ; 1996-1997
Grantor	Pfizer Pharmaceuticals
Title of Project	A 52-Week, Open Extension Study Evaluating the Safety and Outcome of 40-80 mg BID of Oral an <i>Investigational Antipsychotic</i> Daily in the Treatment of Subjects Who have Participated in Previous an <i>Investigational Antipsychotic</i> Clinical Trials
Role of nominee	Local Site Co-PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$20,000 ; 1995-1997
Grantor	Pfizer Pharmaceuticals
Title of Project	Phase III, Six Week, Double-Blind, Multicenter, Placebo-Controlled Study Evaluating the Efficacy and Safety of Two Fixed Doses of Oral an investigational antipsychotic (40 mg, BID and 80 mg, BID) in the Acute Exacerbation of Schizophrenia and Schizoaffective Disorder.
Role of nominee	Local Site Co-PI
Total Amount of Award and Dates	\$ Data not available, estimated at \$50,000 ; 1994-1997
Grantor	SmithKline Beecham Pharmaceuticals
Title of Project	A Double-Blind, Comparative, Placebo-Controlled Trial of Paroxetine in the Prevention of Recurrent Depression
Role of nominee	Local Site Co-Investigator
Total Amount of Award and Dates	\$ Data not available, estimated at \$100,000 ; 1993-1995

Grantor	Abbott Lab
Title of Project	Safety and Efficacy of Depakote in the Prevention of Mania in Patients with Bipolar Disorder
Role of nominee	Local Site Co-Investigator
Total Amount of Award and Dates	\$ Data not available, estimated at \$100,000 ; 1993-1995
Grantor	Pfizer Pharmaceuticals
Title of Project	Sertraline Treatment Followed by a Double-Blind Comparison of Sertraline and Placebo in the Prevention of Relapse in Outpatients with OCD
Role of nominee	Local Site Co-Investigator
Total Amount of Award and Dates	\$ Data not available, estimated at \$250,000 ; 1993-1995
Grantor	The Upjohn Company
Title of Project	A Study of the Efficacy of <i>an investigational anti-anxiety agent</i> in the Treatment of Generalized Anxiety Disorder
Role of nominee	Local Site Co-Investigator
Total Amount of Award and Dates	\$ Data not available, estimated at \$100,000 ; 1992-1994
Grantor	Hoechst Pharmaceuticals
Title of Project	A Study of the Efficacy of 4 mg and 8 mg of an <i>Investigational Antipsychotic</i> Administered to Schizophrenia Patients for 42 Days
Role of nominee	Local Site Co-Investigator
Total Amount of Award and Dates	\$ Data not available, estimated at \$100,000 ; 1992-1994

Description of Important Publications

My research has been influenced by my clinical work and guided by my interest in improving the effectiveness of interventions for persons with psychotic disorders, with particular focus on adherence to antipsychotic medication treatments. With this goal, my publications have sought to improve the understanding of the acceptability of and impact of treatments. These studies are centered on the extent, correlation, and consequences of medication non-adherence as well as methods to improve medication adherence. I have chosen articles below that demonstrate this research theme.

1. Stroup TS, McEvoy JP, Swartz MS, **Byerly MJ**, Glick I, Canive J, McGee M, Simpson G, Stevens M, Lieberman JA. The NIMH-CATIE Project: Schizophrenia Trial Design and Protocol Development. *Schizophrenia Bulletin* 2003; 29(1):15-31.

This article describes the design and protocol development of the largest extramurally funded NIMH trial to date, the national collaborative Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE). The 57-site, 1460-subject study compared the effectiveness of antipsychotic medications in schizophrenia (both within and between newer and traditional antipsychotic classes). Findings were published in multiple articles in important journals, including the *New England Journal of Medicine* and the *American Journal of Psychiatry*. The study has served as the schizophrenia effectiveness trial standard for many years and has provided invaluable information about the comparative value of marketed antipsychotic medications. The trial also led to the establishment of the NIMH-funded Schizophrenia Trials Network. This collaborative network of the top CATIE sites (of which our site is a member), has continued to work together to address important issues regarding the effectiveness of antipsychotic medications. Most recently, collaborative work with this group led to NIMH funding of an \$11 million “ACLAIMS” grant for which I am a Co-PI.

<http://www.ncbi.nlm.nih.gov/pubmed/12908658>

2. Stroup TS, **Byerly MJ**, Nasrallah HA, Ray N, Khan AY; Lamberti JS, Glick ID, Steinbook RM, McEvoy JP, Hamer RM. Effects of switching from olanzapine, quetiapine, and risperidone to aripiprazole on 10-year coronary heart disease risk and metabolic syndrome status: Results from a randomized controlled trial. *Schiz Res* 2013; 146(1-3):190-5.

This study examined the clinical significance of switching from olanzapine, quetiapine, or risperidone to aripiprazole by examining changes in predicted risk of cardiovascular disease (CVD) according to the Framingham Risk Score (FRS) and metabolic syndrome status among 89 switchers and 98 stayers. Estimates of 10-year CVD risk decreased more for the switch (from 7.0% to 5.2%) than the stay group (from 7.4% to 6.4%) ($p = 0.0429$).

Findings suggest that switching from antipsychotics with greater weight and metabolic problems (olanzapine, quetiapine, or risperidone) to an agent with fewer such problems (aripiprazole) was associated with larger reductions in predicted 10-year risk of CVD than the behavioral program alone. However, the benefits of switching must be balanced against its risks, which in this study included more discontinuations of the study treatment but no significant increase in symptoms or hospitalizations.

<http://www.ncbi.nlm.nih.gov/pubmed/23434503>

3. **Byerly M**, Nakonezny P, Fisher R, Magouirk B, Rush AJ. An Empirical Evaluation of the Arizona Sexual Experience Scale and a Simple, One-item, Screening Test for Assessing Antipsychotic-Related Sexual Dysfunction in Outpatients with Schizophrenia and Schizoaffective Disorder. *Schizophr Res* 2006; 81:311-316.

Using the Arizona Sexual Experiences Scale as a “gold standard”, this was the first study to validate a single screening question as a sensitive tool for identifying sexual dysfunction among outpatients with schizophrenia. The study also validated the use of the Arizona Sexual Experience Scale as a suitable gold standard for measuring sexual function in schizophrenia. The value of these findings are highlighted by other recent work of our group and others suggesting that newer antipsychotics differ in their risk for inducing sexual side effects and that sexual side effects of antipsychotics are associated with poorer quality of life in persons with schizophrenia.

<http://www.ncbi.nlm.nih.gov/pubmed/16298106>

4. **Byerly M**, Nakonezny P, Magouirk B, Carmody T, Fisher R, Rush AJ. Sexual Dysfunction Associated with Second-Generation Antipsychotics in Outpatients with Schizophrenia or Schizoaffective Disorder: An Empirical Evaluation of Olanzapine, Risperidone, and Quetiapine. *Schizophr Res*, 2006;86:244-50.

Using a large (N=238), cross-sectional design, this study extended prior work of our group and others suggesting that quetiapine is associated with less severe sexual dysfunction than olanzapine and risperidone. As one of the largest studies to date, the results of this trial aid clinicians in understanding the sexual side effect liability of available antipsychotic medications.

<http://www.ncbi.nlm.nih.gov/pubmed/16730951>

5. **Byerly M**, Suppes T, Pikalov A, Baker R. Clinical Implications of Antipsychotic-Induced Hyperprolactinemia in Patients With Schizophrenia Spectrum or Bipolar Spectrum Disorders: Recent Developments and Current Perspectives. *J Clin Psychopharmacol* 2007; 27(6):639-661.

This 22 page systematic review provided an update on extensive recent research of prolactin-related effects of antipsychotic medications in persons with schizophrenia and bipolar disorder. It has been widely referenced and, along with related work, has established our group as one of the leaders in this area.

<http://www.ncbi.nlm.nih.gov/pubmed/18004132>

6. **Byerly M**, Fisher R, Rush AJ, Holland R, Varghese F. A Trial of Compliance Therapy in Outpatients With Schizophrenia or Schizoaffective Disorder. *J Clin Psychiatry* 2005; 66:997-1001.

This study sought to extend two prior trials, both by the same investigator, which reported positive findings of Compliance Therapy (a brief, cognitively-based adherence therapy) in mixed psychiatric populations by evaluating the impact of Compliance Therapy in persons with schizophrenia and schizoaffective disorder. At the time our study was initiated, Compliance Therapy was the only putative adherence intervention that was feasible to deliver in community practice. Findings of our study of Compliance Therapy in outpatients with schizophrenia and schizoaffective disorder (the first study completed by an independent group), and two later randomized controlled trials, indicated that Compliance Therapy was not effective in reducing antipsychotic medication non-adherence of persons with psychotic disorders. An analysis of the Cochrane group recently confirmed a lack of evidence to support the use of Compliance Therapy in schizophrenia, consistent with the findings of our group.

<http://www.ncbi.nlm.nih.gov/pubmed/16086614>

7. **Byerly MJ**, Fisher R, Whatley K, Bugno H, Varghese F, Carmody T, Rush AJ. A Comparison of Electronic Monitoring vs. Clinician Rating of Antipsychotic Adherence in Outpatients with Schizophrenia. *Psychiatry Res* 2005; 133:129-33.

This study was the first to compare electronic monitoring to another antipsychotic medication non-adherence detection method among persons with schizophrenia. The study found that, compared to electronic monitoring, clinician assessment dramatically underestimated antipsychotic medication non-adherence. It also documented that clinically significant medication non-adherence occurred in approximately one-half of patients during a brief, three-month monitoring period. The study was an important early article in questioning the validity of clinician assessment of antipsychotic medication adherence.

<http://www.ncbi.nlm.nih.gov/pubmed/15740989>

8. **Byerly M**, Thompson A, Carmody T, Bugno R, Kashner TM, Rush AJ. Validity of Electronically Monitored Medication Adherence and Conventional Adherence Measures in Schizophrenia. *Psychiatr Serv* 2007; 58:844-847.

In this study adherence to antipsychotic medications was monitored for 6 months with electronic monitoring, prescriber rating, patient rating, and a brief adherence rating scale. The study found that non-adherence was detected much more frequently with electronic monitoring (57%) compared to prescriber (7%) and patient (5%) ratings. This work helped to codify that patients and prescribers dramatically over-estimate antipsychotic adherence. This finding suggested that clinicians are largely unable to detect non-adherence in the community and that development of effective adherence tools was needed.

<http://www.ncbi.nlm.nih.gov/pubmed/17535946>

9. **Byerly M**, Nakonezny P. The Brief Adherence Rating Scale (BARS) validated against Electronic Monitoring in assessing the Antipsychotic Medication Adherence of Outpatients with Schizophrenia and Schizoaffective Disorder. *Schiz Res* 2008; 100(1-3):60-9.

This article indicated that the Brief Adherence Rating Scale (BARS), which was developed and validated by our group, can address prescribers' challenge in identifying non-adherence. The BARS is a brief, pencil-paper, clinician-administered adherence instrument. It consists of four items: three questions and a visual analog scale (VAS) rating (0% to 100%). The VAS rating serves as the final adherence determination. The BARS requires less than 60 minutes of staff training and takes less than 5 minutes to complete each assessment. In this study, electronic monitoring (EM) and BARS adherence and symptom severity ratings were gathered at baseline and respectively at 6 monthly visits in 61 participants with schizophrenia or schizoaffective disorder. A significant positive relationship was found between mean BARS and EM adherence ($\beta=0.98$; $r_s=0.59$, $p<0.0001$). Cronbach's coefficient alpha revealed very high internal reliability for the BARS ($\alpha=0.92$). A moderate-to-strong degree of test-retest reliability was also found for the BARS (β ranged from 0.53 to 0.92 and r_s ranged from 0.46 to 0.86). Regarding concurrent validity of the BARS, greater mean BARS adherence was significantly related to lower mean Positive and Negative Syndrome Scale (PANSS) total scores ($\beta=-0.40$; $r_s=-0.39$, $p=0.002$) and to lower mean Positive symptom sub-scale scores ($\beta=-0.08$, $p=.007$; $r_s=-0.28$, $p=.02$). An initial 3-month monitoring period with the BARS also demonstrated good sensitivity (73%) and specificity (74%) in identifying non-adherent outpatients (defined as $<70\%$ mean EM adherence). Relative to EM (the accepted gold standard of adherence assessment), the BARS appears to provide valid, reliable, sensitive, and specific estimates of antipsychotic medication adherence of outpatients with schizophrenia and schizoaffective disorder. These characteristics have led to inclusion of the BARS as the primary adherence assessment tool in several NIMH and industry-sponsored antipsychotic trials. Its potential use in the community was also recommended by several recent adherence reviews, including its publication as the only instrument provided in full form in an expert consensus article on adherence problems in patients with serious and persistent mental illness. Thus, to date, the BARS is the leading scale for brief assessment of adherence in research and in the community, with properties that are similar to that of the much more intrusive and costly gold-standard assessment of EM.

Moreover, recently obtained (manuscript in preparation) findings from our large NIMH LAI “ACLAIMS” trial (N = 175) indicate that a single BARS rating at baseline, with a cutoff $\leq 66\%$ BARS adherence, can discriminate those who are likely to respond to long-acting injectable (LAI) antipsychotic treatment (a potential adherence intervention) at month 3 (area under the curve = 0.59, $p = 0.04$). Indeed, 60% of patients with a BARS adherence rating of $\leq 66\%$ responded to LAI treatment at month 3, whereas only 34% of the patients with a BARS adherence rating of $> 66\%$ responded. Patients who were $\leq 66\%$ BARS adherence threshold had 2.90 times the predicted odds of responding to LAI treatment at month 3 than those who were $> 66\%$ BARS adherence threshold (odds ratio = 2.90, 95% confidence interval = 1.40–5.99; $p = 0.004$). In summary, the BARS have favorable psychometric properties, including an ability to detect non-adherence to oral antipsychotic medication and to discriminate response to LAI treatment.

<http://www.ncbi.nlm.nih.gov/pubmed/18255269>

10. Nakonezny, P.A., **Byerly, MJ**, and Pradhan, A. The effect of providing patient-specific electronically monitored antipsychotic medication adherence results on the treatment planning of prescribers of outpatients with schizophrenia. *Psychiatry Res* 2013; 208(1):9-14.

In this study, adherence to antipsychotic medication was assessed monthly over a 6-month study period using patient-specific electronic monitoring (EM) of medication bottle opening in 23 outpatients with schizophrenia or schizoaffective disorder. Patient-specific EM adherence results were then shared with the participating prescribers, who were surveyed concerning the treatment changes, if any, that they would recommend based on the EM adherence results. Prescribers indicated that they would recommend adherence-related treatment plan changes in 61% of patients, all of whom were $\leq 80\%$ adherent. However, prescribers rarely recommend the use of a long-acting injectable (LAI) antipsychotic medication to address identified non-adherence (i.e., LAI was chosen in just 6% of identified non-adherent cases), with prescribers frequently opting instead for adherence interventions such as having a patient visit with a case manager about the non-adherence, which has much less guideline-recommended support than the use of LAIs as an intervention for non-adherence. Thus, prescriber recommendations of adherence interventions in this study were not necessarily consistent with major guideline recommendations. Findings suggest the need for further study and dissemination of findings regarding evidence-based adherence assessment and interventions research which, our group is actively pursuing.

<http://www.ncbi.nlm.nih.gov/pubmed/23473653>

As can be seen from the illustrated publications above, I have focused my research on methods that researchers and clinicians can best use to improve the effectiveness of interventions for persons with severe mental illnesses. As the Associate Training Director for Research and the Didactic Curriculum, I have incorporated these approaches into the teaching and supervision of students, residents, fellows and other trainees to highlight the importance of using research to guide evidence-based practice. It is hoped that the development of our leading adherence assessment tool, the BARS, will increasingly have direct impact on the adherence research field and community care of patients and that future work growing out of this line of investigation will further advance these goals.