Myths and Realities of Women in Prison
Anna Glezer MD, Susan Hatters Friedman MD, Catherine Lewis MD, Aimee Kaempf MD, Gender Issues Committee

Over past decades, there has been a dramatic rise in the number of incarcerated women in America, fueled in part by the “war on drugs.” This has led to over one million women currently in the criminal justice system, in a combination of jail and prison, probation, and parole. Therefore, it is important to recognize the demographics of this population and learn about the realities of mental illness, substance use, trauma, and issues related to pregnancy and family separation.

The lifetime likelihood of imprisonment for women in the US is 1 in 56 (much higher for black women), and the most common reasons are nonviolent offenses such as drug and drug-related crimes, and prostitution. The reality is that women in prison suffer from physical and mental health problems at rates higher than their male counterparts. They are more likely to have chronic or communicable medical disease, and, almost three fourths of women in state prisons have symptoms of an active mental health problem, according to the Bureau of Justice and The Sentencing Project. Because of the complexity of these inmate-patients, the staff working in correctional institutions that house primarily women are at risk for burn-out.

Mental Illness and PTSD
Mental illness and PTSD specifically are common in this population. Approximately three-quarters of women entering prison have a history of trauma (Gunter et al, 2012). Female prisoners with serious mental illness are more likely to also have PTSD (Lynch, 2014). Further, a minority of prisoners are victimized whilst in prison. Under-reporting so as not to be seen as weak, as well as over-reporting (malingering for damages or disability) are both potential issues when diagnosing PTSD in this population (Friedman et al, 2015).

The Externalizing Endophenotype: Not Just for Men
Early research on diagnoses in incarcerated populations identified high prevalence of substance use disorders among men and women. The link between Antisocial Personality Disorder and Substance Use Disorder (SUD) is well established in clinical populations. In studying a group of female felons in Connecticut state prison, for example, Dr. Catherine Lewis noted that nearly half the sample met criteria for ASPD. Of those with conduct disorder, more than 75% progressed to ASPD, higher than the one-third reported for general clinical populations. The presence of conduct disorder was associated with heightened prevalence of ADHD (nearly one-third of women), alcohol dependence (nearly two-thirds of women), opiate dependence (half) and PTSD. Furthermore, the age of onset of conduct disorder preceded that of SUD or affective disorder. It was associated with adult aggression when drinking and sober. Overall, the findings supported a link between a childhood

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Francis Shen: Neurolaw

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Dr. Francis X. Shen is a Mc Knight Land-Grant Professor and Associate Professor of Law at the University of Minnesota, where he directs the Shen Neurolaw Lab (www.fxshen.com). He also serves as Executive Director of Education and Outreach for the MacArthur Foundation Research Network on Law and Neuroscience. Dr. Shen conducts empirical and legal research at the intersection of law and neuroscience, and is one of the world’s foremost scholars in this emerging field. He recently co-authored the first Law and Neuroscience textbook, and has published on a range of neurolaw topics, including memory, lie detection, mental health, neurolegislation, criminal law, and tort law. I recently had the pleasure of working with Dr. Shen as a co-panelist on “Neuroscience and Criminal Responsibility” at AAPL 2015, and interviewed him shortly afterwards for the AAPL newsletter.

OC: Francis, you are the Executive Director of Education and Outreach for the MacArthur Foundation Research Network on Law and Neuroscience. Could you please explain to our readers what this group does and your role is within that organization?

FS: Sure, the MacArthur Foundation Research Network on Law and Neuroscience is a MacArthur Foundation funded network. I should say as background that the MacArthur Foundation has for many years funded “networks”, which are small—say between ten to twentyish—groups of individuals that come together from different fields that they wouldn’t otherwise come together from to deal with some problem. These networks have tackled issues such as mental capacity, aging, things that sometimes have to do with law but things that also just might have to do with policy.

One of the ideas that was floated over a decade ago was to bring together a network at the intersection of neuroscience and law. Its origins actually came from the neuroscientist Robert Sapolsky at Stanford, who didn’t end up being a member of the network but got the conversation started. He wrote a provocative article called, “The Frontal Cortex and the Criminal Justice System” and he suggested to the MacArthur group (he was a MacArthur Genius Fellow), that this would be something to really think about. It turned into a network that combined neuroscientists, lawyers, judges, philosophers, and some fellow travelers from related disciplines, psychology and others, to try and tackle these issues.

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The network focuses specifically on criminal law and criminal justice, though, of course, neurolaw can be more than that and is. Initially the first phase of the network focused on a wide variety of topics, really just trying to envision the scope of the field, and in the process, create the field. Currently the network is in its phase two and has focused on a more tightly knit group of issues surrounding mental states, adolescent development and adolescent brain development, and evidentiary questions; for instance, the “group to individual” inference problem and a host of related issues at those intersections.

In addition to all of the basic research that the network has done, we run an education and outreach program, which I direct. We see as part of our mission to translate both the research that we’ve done and the research that others are doing into a more usable end product for ultimate consumers who are lawyers and judges, probation officers, prosecutors, public defendants and the like. So, what we do is run programs and create materials that can facilitate that discussion. They can be as involved as bringing judges to a day and a half or two-day conference introducing them to neuroscience, and building up then to talk about issues such as memory in the courtroom, mental states, and the determination of capacity, what do you do with a brain injured defendant, what do you do with an adolescent, and so forth—specifically trying to answer the question “what, if anything, does neuroscience add” to your judging or to your lawyering and to your assessment of these individuals.

A lot of work, too, has to do with separating wheat from chaff—lawyers do not have to wait until there’s scientific consensus, and often don’t wait before they proffer the evidence, and that puts judges and the entire legal system in a tough situation because we have to evaluate this new type of evidence, this new type of proffered expert testimony, and so we try to help judges work through that process by giving them more information by which they can make an educated call on admitting the evidence or keeping it out or asking the right questions of experts. We’re developing right now a set of judicial kind of bench cards or checklists that we think judges might be able to use as quick reference when confronted with sort of this information.

OC: Like how to evaluate a neuroimage, as an example or...?

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FS: That’s a good example. The checklists we’re developing wouldn’t give anything in depth but would provide judges with questions to ask and places to go to, resources that are free online that they can take a look at and have their clerks look at just to get up to speed on what is this new information suddenly showing up in my courtroom.

OC: What do you think forensic psychiatrists should know about neurolaw, and what do you see as the forensic psychiatrist’s role in this emerging field?

FS: The first thing to say is that neuroscience in the courtroom is just really starting to emerge in its newest form. For instance, fMRI or even the advent of PET in the courtroom is still somewhat new, even though PET has been around for a long time. So I think what the forensic psychiatry community should be aware of more generally the use of neuroimaging in psychiatry. We’re unlikely to see much forensic psychiatry engaging with neuroscience until psychiatry, more generally, is engaging meaningfully with neuroscience.

You know, we talked about that and it’s something that is also just starting to emerge. Last year’s AAPL panel (on “Neuroscience and Criminal Responsibility”) was actually really interesting. I followed up and emailed [AAPL member] Nathan Kolla for some sites on the dementia side, which he mentioned is maybe one of the places where we’re seeing the most, if still limited use of neuroimaging to perhaps help in assessing the diagnosis or confirming a diagnosis or informing treatment. Neuroscience is increasingly emerging as a potential tool in the psychiatric toolbox, and the law is going to have to evaluate whether the use of that tool is useful in the courtroom. I don’t think it’s special in many ways but it is new and so what law is going to do is use its tried-and-true techniques, such as the Daubert standard and the Frye standard and other modes of evaluation to either analogize or distinguish the use of this evidence in assessing mental states in the same way it’s evaluated previous types of information that psychiatrists are beginning to use and maybe didn’t use before.

I think the dialogue is going to be a lot of forensic psychiatry saying to the law: here’s what’s a reasonable use of neuroimaging just for clinical purposes and the law will then assess that and figure out if there’s some additional concern or if they’ll say, okay, add it to your package of stuff that you put in your report in the same way that you use a lot of other tools, you know, actuarial tools or other standardized, MMPI, whatever it might be. You know, tools that you already use that are admissible and that have legal import even though they’re not defined by law. We recognize them as being useful to law.

OC: You mentioned that the MacArthur Network on Law and Neuroscience is wrapping up its second phase. What’s the future of the project, moving forward?

FS: The network, by design, and this is true for all the MacArthur networks, they run between eight and twelve years or so. We will complete our run at the end of 2016 by design, so this is a capstone year as we wrap up the research and put out sort of the final publications and those sorts of things so we are in our final stage. I think that the network has been tremendously productive without question and tremendously successful in beginning to get this field started but I’ll say that there are a lot of opportunities for many in and around this area, very much including forensic psychiatrists. The future is dependent on the interest and willingness of those at the frontline, like forensic psychiatrists, to be open to thinking about new methods for assessment and treatment, and that’s a question that your community can answer that I can’t, which is: when does a particular area of neuroscience evidence actually add value to the legal questions being considered?

OC: Just to wrap up, Francis, I wonder if you could point out some online resources that an interested forensic psychiatrist might go to to learn more about the topics we’ve been discussing in neurolaw.

FS: Sure, so let me give you two. The MacArthur Foundation Research Network on Law and Neuroscience has a webpage at www.lawneuro.org and we have many resources there. We have a searchable bibliography that includes over 1200 listings, we have links to all of the education programs that we’ve run, including over two dozen videos, the full videos from those programs so you can see exactly what we’ve been up to, and then we have links to a large number, maybe over fifty conferences that have been sponsored by all sorts of groups and panels and the like. It’s really one of the hubs for work in this area. A second prominent website is the Center for Law, Brain and Behavior (CLBB) at Harvard Medical School, which partners with the Harvard Law School and with the neuroscience group there. http://clbb.mgh.harvard.edu/

OC: Great, thank you so much for your time Francis.

FS: You’re welcome! I’m looking forward to working with you again at AAPL this fall in Portland.