



RCCAP

Regional Council of Child/Adolescent Psychiatry for
Eastern Pennsylvania and South Jersey

News

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Editor

EDITORIAL

There has been significant developments in THREE domains which are expected to have transformational impact on practice of medical specialties including child and adolescent psychiatry. They are:

- A) Precision medicine, precision psychiatry, and precision child and adolescent psychiatry
- B) The use of artificial intelligence (AI) in the practice and documentation in medicine and psychiatry.
- C) The consequences of gun violence

Precision medicine, precision psychiatry and precision child and adolescent psychiatry

Precision medicine initiative provides a transformative opportunity in medicine and psychiatry to move beyond the traditional phenomenological disease classification to target individual psychopathology for therapeutic intervention. The search for and assessment of biomarkers is a significant goal of precision psychiatry. The original paper on family psychiatry in this newsletter addresses. The complex interactions of multilateral interactions of biological, familial and environmental factors in child and adolescent psychiatry.

Artificial intelligence

Artificial intelligence (AI) is a general term used to describe the use of computerized techniques and algorithms to simulate intelligent behavior and critical thinking comparable to a human being. John McCarthy first described the term of (AI) in 1956 as a science of engineering of making intelligent decisions.

An editorial by selectively edited and is published in the current issue of **RCCAP NEWS**.

Guns violence and its impact on medical practice

Almost every specialty in medicine has been impacted by the devastating impact of gun violence

Some specialties have been disproportionately affected by this tragedy such as emergency and trauma medicine.

Psychiatry and child and adolescent psychiatry have been one of the specialties disproportionately affected due to the prevalence of suicidal and homicidal behavior as well as distorted cognitive processing and deficiency in problem solving in our patients and community at large.

The editorial board is very hopeful that the memberships can respond to the above three challenges with their ideas so we can forge a meaningful and substantial dialogue on these three subjects. That is the essence of "A Community" in a scientific subspecialty, which we hope to establish.

For artificial intelligence, the future is finally here



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AI will dramatically change how humans interact with the world

We are currently on the verge of yet another societal "revolution" that will exert an unprecedented impact on our lives. It may surpass prior seismic cultural breakthroughs like the internet, smartphones, and social media. Artificial intelligence (AI) has been fermenting for several decades, gathering steam to become equivalent (and eventually superior) to human intelligence. The escalation of AI sophistication will be jarring and perhaps change human life in completely unpredictable ways.

Composing thoughts into words and coherent sentences has always been a uniquely human attribute among all living organisms. Now, that sublime feature of the human mind is being simulated, thanks to advances in AI software, ironically created by the human mind itself! On November 30, 2022, Open AI introduced ChatGPT (generative pre-trained transformer), which can generate an article on any topic a user requests. Within a few weeks, it was used by more than 100 million people. ChatGPT is taking the world by storm because it is a harbinger (some pessimists may label it an omen) of how human existence will be radically impacted in the future. Such AI breakthroughs to surpass human intelligence are, ironically, the product of the advanced human brain, which I previously described as concurrently a triumph and a blunder by evolution.¹

Anosognosia in schizophrenia (generated by ChatGPT)^a

Anosognosia is a condition in which a person is unaware or unable to recognize their own illness or disability. In schizophrenia, anosognosia can be present in up to 50% of cases and is characterized by a lack of insight into the presence and severity of symptoms.

People with anosognosia in schizophrenia may not believe that they have a mental illness, may deny the reality of their symptoms, or may attribute them to external causes. This can make it difficult for them to comply with treatment, as they may not see the need for medication or other interventions.

Anosognosia is thought to be caused by structural and functional changes in the

brain, particularly in areas associated with self-awareness and insight. It is often more severe in people with more severe forms of schizophrenia and may be associated with poorer treatment outcomes.

Effective treatment for anosognosia in schizophrenia typically involves a combination of medication and therapy, as well as strategies for improving insight and awareness of symptoms. Family members and caregivers can also play an important role in helping people with schizophrenia to recognize the presence and impact of their illness, and encouraging them to engage in treatment.

^aBased on "Is anosognosia a delusion, a negative symptom, or a cognitive deficit?" Current Psychiatry, January 2022, p. 6-8,14. doi: 10.12788/cp.0210

How we got here, and what's next

ChatGPT is a large language model based on neural networks.² It generates realistic text responses to a wide range of questions by mimicking the pattern of language in gargantuan online databases. One Hong Kong-based, AI-powered drug discovery company (Insilico Medicine) declared it published articles generated by AI tools, even before ChatGPT became available. This indicates how AI can be misused in scientific publications and may be hard to detect as a new form of plagiarism.³ The roots of AI date back to the 1950s, when Alan Turing, now considered the father of AI, published a seminal article about creating a machine to “imitate the brain” and to “mimic the behavior of the human.”⁴ The term “artificial intelligence” was coined in 1989 by McCarthy,⁵ who defined it as “the science of engineering for making intelligent machines.” Since then, several subsets of AI have been developed:

- Machine learning: The study of computer algorithms to generate hypotheses
- Deep learning: A type of machine learning algorithm that uses multiple layers to progressively extract higher-level features from raw input. (Both machine learning and deep learning are used in the burgeoning fields of computational psychiatry⁶ and neuroscience research⁷)
- Expert knowledge system: A computer based system that mimics human decision making ability
- Neural networks: An interconnected group of artificial neurons that uses a math or computer model for information processing
- Predictive analytics: An algorithm to predict future outcomes based on historical data.

Epidemic of intellectual constipation (generated by ChatGPT)^a

The term “epidemic of intellectual constipation” refers to a phenomenon in which individuals, groups, or even entire societies are seen as lacking the ability to think critically, creatively, or expansively. It can be characterized by a lack of curiosity, a narrow range of interests, and a reluctance to engage with new or challenging ideas.

The cause of this phenomenon can be attributed to a variety of factors, including cultural, social, and educational influences. For example, some argue that a narrow and standardized educational system, as well as a lack of exposure to diverse perspectives, can limit creativity and critical thinking skills. Additionally, the prevalence of social media and other forms of digital media may encourage a focus on immediate gratification and quick information, rather than more in-depth and meaningful engagement with information.

The consequences of this epidemic can be far-reaching and can impact personal, social, and political aspects of life. For instance, a lack of critical thinking skills can lead to the spread of misinformation, while a narrow range of interests can limit personal growth and the ability to connect with others.

To combat the epidemic of intellectual constipation, it's important to foster critical thinking skills, encourage exposure to diverse perspectives, and encourage a lifelong love of learning. This can be achieved through education, community engagement, and personal effort.

In conclusion, the “epidemic of intellectual constipation” refers to a phenomenon in which individuals, groups, or entire societies lack the ability to think critically, creatively, and expansively. To combat this epidemic, it's important to foster critical thinking skills, encourage exposure to diverse perspectives, and encourage a lifelong love of learning.

^aBased on “From debate to stalemate and hate: An epidemic of intellectual constipation,” *Current Psychiatry*, January 2023, p. 3-4. doi: 10.12788/cp.0321

These subsets of AI have been used to identify psychiatric disorders using neuroimaging data⁸ and to classify brain disorders.⁹ There are many potential uses of AI in psychiatry.^{10,11} My first experience with AI was 13 years ago, when we conducted a project to distinguish fake suicide notes from genuine ones.¹² AI was more successful in correctly identifying fake notes (78% correctly detected) than senior psychiatric residents (49%) or even faculty (53%).

AI will dramatically change how humans interact with the world and may lead to enhanced creativity and new explorations and forays into novel, previously unknown horizons. It is expected to significantly boost the global economy by many trillions of dollars over the next decade. Major high tech companies are vigorously competing to develop their own AI tools like

ChatGPT (Microsoft invested \$10 billion in Open AI). Google, which owns DeepMind (an AI lab that invented the T in GPT) developed its own chatbot called Bard. Amazon has invested heavily in Stability AI by giving its founder and CEO Emad Mostaque 4,000 Nvidia AI chips to assemble the world's largest supercomputer (1 year ago, Stability had only 32 AI chips!). Apple recently integrated Stable Diffusion into its latest operating system. Chinese tech giants Alibaba and Baidu also announced their own chatbots to be released soon.

Other competitors include Cohere, Hugging Face, Midjourney, GitHub Copilot, Game Changer, Jasper, and Anthropic, which released Claude as its chatbot at a lower cost than ChatGPT. Open AI also developed Dall-E2 in April 2022, which can generate very realistic images from text, one of which recently won an award at an art competition.

One of the major concerns about these AI developments is that chatbots can make errors or disseminate misinformation and even enunciate racist or misogynist statements.

The greatest worry is that the ultimate implicit goal of AI is what is called artificial general intelligence (AGI), which can think and learn better than humans.

Some fear AGI may wipe out humans as a species, a grave outcome indeed. That's why AI developers intend to align AGI with "basic human values" in the event it surpasses human intelligence. Some are even calling for a transition from AI to AW (artificial wisdom), with built-in empathy, kindness, self-reflection, acceptance of diverse perspectives, and promotion of prosocial ideas.¹³

Creating content: artificial intelligence vs human authors

ChatGPT has opened a Pandora's box of concern about potential plagiarism by students or scientific authors. This has prompted several journals,¹⁴ including Current Psychiatry, to establish policies regarding the use of AI (see "A 'guest editorial'... generated by ChatGPT?" page 6).

To give readers additional concrete examples of the quality of articles generated by ChatGPT and to highlight the differences between text created by AI vs a human, I asked it to write articles on the same 4 topics on which I had written articles for Current Psychiatry:

- Anosognosia in schizophrenia (Box 1, page 9); based on "Is anosognosia a delusion, a negative symptom, or a cognitive deficit?" Current Psychiatry, January 2022, p. 6-8,¹⁴ doi: 10.12788/cp.0210
- Benefits of metformin in psychiatry (Box 2, page 10); based on "Beyond diabetes: The beneficial uses of metformin in psychiatry," Current Psychiatry, March 2022, p. 7-9. doi: 10.12788/cp.0225
- Epidemic of intellectual constipation (Box 3, page 10); based on "From debate to stalemate and hate: An epidemic of intellectual constipation," Current Psychiatry, January 2023, p. 3-4. doi: 10.12788/cp.0321
- SWOT analysis of psychiatry (Box 4, page 11); based on "Contemporary psychiatry: A SWOT analysis," Current Psychiatry, January 2023, p. 16-19,²⁷ doi: 10.12788/cp.0320.

These ChatGPT articles are verbatim as generated, without any copyediting, fact-checking, or addition of reference citations. One can easily notice that while factually acceptable, the ChatGPT articles tend to be rather synthetic, simple, bland, and lacking creative language or going beyond the facts to express personal viewpoints. However, I have no doubt that future versions of ChatGPT or other chatbots will evolve into far more sophisticated products and may match what a human can compose in terms of quality and complexity.

AI has arrived with a bang. Going forward, I predict it will continue to surprise us, with elements of "future shock." The credit (or blame) belongs to the boundless creativity of human intelligence that is seeking to invent an intelligence higher than its own. Caveat emptor!

Precision Medicine



<https://medlineplus.gov/genetics/understanding/precisionmedicine/definition/>

https://en.wikipedia.org/wiki/Personalized_medicine

Precision medicine is "an emerging approach for disease treatment and prevention that takes into account individual variability and environmental characteristics to allow the clinicians and researchers to predict more accurately which treatment, procedures and strategies will be more effective for particular disease.

Although the term "Precision medicine" is relatively new, the concept has been around for many years. For example, a person who needs a blood transfusion is not given blood from randomly selected donors; instead, the only blood type is administered to the recipient that reduces the risk of complications.

Most medical treatments are designed for the "average patient" as a one-size-fits-all approach which may be successful for some patients but not for others. Precision medicine, sometimes known as "personalized medicine" is an innovative approach to tailoring disease prevention and treatment and takes into account differences in the patient's genes, environments, and lifestyles. The goal of precision medicine is to "Supertarget" the right treatment for the right patients at the right time.

Advances in precision medicine have already led to powerful new discoveries and FDA-approved treatments that are tailored to specific characteristics of individuals, such as a person's genetic make-up, or the genetic profile of an individual's tumor. Patients with a variety of cancers routinely undergo molecular testing as part of their care, enabling physicians to select treatments that improve chances of survival and reduce exposure to adverse effects.

Next generation sequencing (NGS) tests

Precision care will only be as good as the tests that leads to the right diagnosis and treatment. Next generation sequencing (NGS) tests are capable of rapidly identifying or sequencing large sections of the person's genome and environment to advance the clinical application of precision medicine. Physicians and researchers can review the tests to find genetic variance that help them diagnose, treat and understand more about human diseases.

The vast amount of information generated through NGS tests poses a formidable regulatory challenge for the FDA. The FDA is working to ensure the accuracy of NGA tests, so that patient and clinician can receive accurate and clinically meaningful test results. In April 2018, the FDA issued two final guidelines and recommended approaches to streamline the review of data supporting the clinical and analytical validity of the NGS-based findings. These recommendations are intended to provide an efficient and flexible regulatory oversight approach as technology advances.

FDA bioinformatics plan for has been created at the cloud-based community research and development portal and engages users across the board to share clinical data for tools to test.

Precision psychiatry

Leanne Williams, PhD and Laura Hack, published online: 18 August 2022

It is estimated that 1 in 10 people have a mental disorder; that translate into 970 million people Waldwide. Unlike many other chronic diseases, many mental disorders often have their early onset in childhood and youth. If left untreated or insufficiently treated, they can deprive individuals of the opportunity to live productive and satisfying lives. In the April 2015 issue of the journal of psychological medicine, a group of investigators reported that mental disorders are the leading cause of disability in people worldwide. By 2030, the annual costs associated with mental disorders are estimated to be \$6 trillion globally.

Precision psychiatry aims at connecting each patient with the exact needed treatments at an early stage by using advances in science and technology. It seeks to develop therapeutic approaches tailored for specific individuals with specific constellations of health issues, characteristics, strength, and symptoms. Through the approaches, it hopes to reduce the burden of the disorder experienced by patients, families, and wider communities.

The diagnostic and statistical manual of mental disorders (DSM-V–TR) and international classification of diseases and related health problems (ICD–10) provide the standardized nomenclature. The rapid accumulation of neuroscience insights has given us the opportunity to complement the classification systems with neurobiological information and psychosocial factors that interact with neurobiology and symptom expression. Neuroscience insights offer ways to account for the heterogeneity within and across mental disorders and to consider treatment selections accordingly. The insight of clinical phenotypes to an individual opens the possibility that treatment can be adapted and selected to target his specific clinical features on time. In some cases, underlying neurobiology may align with his DSM or ICD based classifications. In other cases it may cut across diagnostic classifications or identify unforeseen, novel issues on time.

For precision psychiatry to make a difference in the patient's lives and be useful to clinicians, it must be driven by clinical translational goals. The clinical decision making can be complemented by tools and measures that help to diagnose individual clinical wild-type profiles and tailor treatment to these profiles. Realizing this future will involve an ongoing integration of findings from basic and clinical neurosciences, as well as population–level data from clinical practice and new forms of clinician researcher partnership. No single specialty discipline will have all the required for the domain of precision psychiatry.

According to Tom Insel, precision psychiatry is an approach that focuses on understanding the underlying neurobiological mechanisms that caused his symptoms of psychiatric disorder. Using this understanding, we have foundations for developing treatment that can target his mechanisms, which will address previously untreatable aspects of psychiatric disorders by providing more specific symptom control and possibly altering the trajectory of the disease process. Rather than focusing on diagnostic categories that there is a syndrome based treatment approach, the emphasis is on solution than that span pharmacological, behavioral, normal modulation and normal pressure. Takes and can all the alters the specific biological processes that lead to the manifestations of symptoms and feeling tired. This is critical because mental disorders are collections of many different processes that interact across time to develop the unique pattern of symptoms that are experienced by each individual. The precision psychiatry is also recognized as "stratified medicine", "personalized medicine, and Precision mental health's". "Stratified medicine" focuses on the identifying subgroups the patient would benefit from treatment as a step toward a fully personalized approach that Taylors treatment with individual people.

Precision child and adolescent psychiatry

Jonathan POSNER, et al;

Journal of American Academy of Child and Adolescent Psychiatry, 2018 (November)

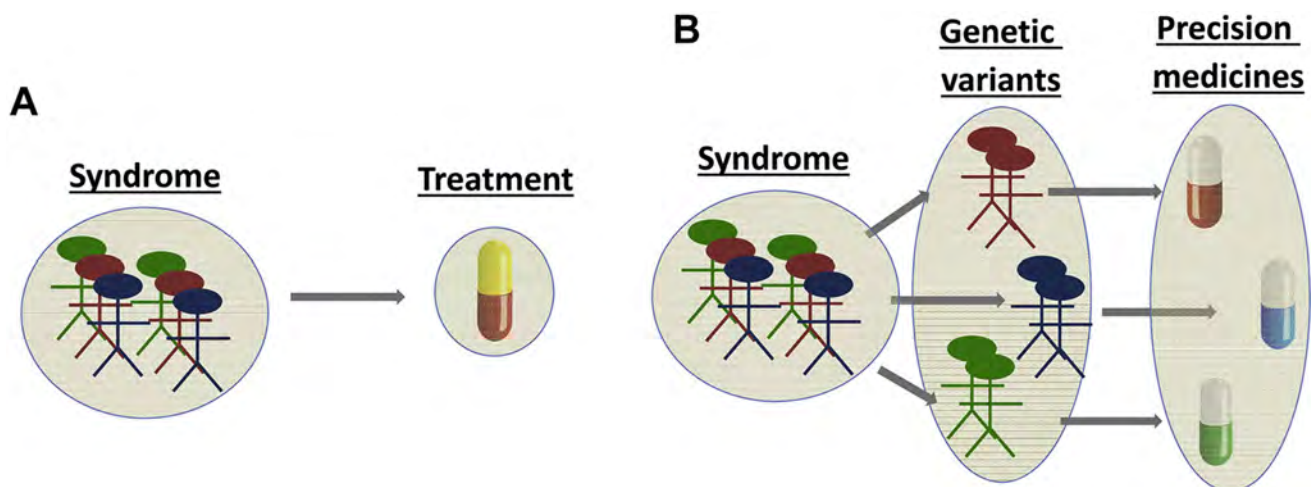
In the United States, nearly 1 in 5 adults and 1 in 4 children suffer from a mental illness, which confers significant social, occupational or academic impairment. Whereas considerable progress has been made in diminishing the impact of mental illness, in the last few decades, advances toward new, more effective and more refined psychiatric treatment has slowed. First-line medications for depression, schizophrenia, bipolar disorders and ADHD introduced decades ago, have made little progress in augmenting their effectiveness.

Overall, the precision medicine and research has represented a solid research base. They have allocated the patients to existing and novel pharmacological and nonpharmacological treatments based on their individual behavioral and neurobiological profiles, consistent with the principals of precision and personalized medicine. Nevertheless, despite this considerable progress, the available literature does not yet provide sufficiently strong evidence for actionable treatment biomarkers for disorders in clinical settings.

The aim of the personalized medicine is to determine which treatments may work best out of the available options for any given patient. However, little work has examined the treatment-specificity of associations between brain pattern and treatment outcomes. Future research testing of treatment-specific associations will be crucial for developing mechanistic models of treatments and individually tailored treatment algorithms.

Precision child and adolescent psychiatry is expected to follow the lead of oncology in successful development of highly refined and targeted therapeutics.

Evidence from other contexts suggests that precision child and adolescent psychiatry has beneficial impact on effective treatment outcomes and efficient resource use. However, there is a lack of evidence in the Child Mental Health about which characteristic of a young person are associated with strongly positive outcomes and resource use, crucial to underpin any precision medicine model.



Reference: *J Am Acad Child Adolesc Psychiatry*. 2018 Nov; 57(11): 813–817. doi: 10.1016/j.jaac.2018.07.874

The enclosed diagram compares the established model of treating the syndromes with certain medication treatment by elaborating on the genetic composition of the syndrome and modifying the model by adding the genetic variance. The diagram addresses these variants and therefore offers three different possibilities instead of one in the standard model.

Acknowledging heterogeneity and tailoring treatments to target individual's underlying cognitive and brain processes. Neuro psychological subtype of ADHD population has been proposed to facilitate this approach and in spite of the lack of consensus regarding the pathophysiological dimensions of greatest relevance.

Etiology also apparently attempted genetic risks as well as environmental exposures. Recognizing heterogeneity of the disorders, could lead to that adoption of precision medicine; the trend in recent years is indeed to recognize and personalize individual treatment in order to improve cognitive and motivational processes and a specific ADHD individual. The neuro psychological support categorization of the ADHD population (inattentive versus impulsive) has been proposed to facilitate this type of approach. Precision medicine includes tailoring treatments and specific disease process and participate in PAR SRI and G etiology of underlying disease mechanism–based on genes and environments. Understanding the distinction etiology of the disease process is required to split complex syndromes into an etiologically homogeneous subtype in terms of target specific etiology. Regarding her seizure medicine or differences in the clinical features of the research sample may contribute to hampering the identification of clinic for evaluation and reliable biomarkers of psychosis.

Thus, all for the patient–sized" treatment selection cannot be easily targeted to specific molecular alterations. More overwhelmed with the frequency of calling–therapist and psychiatric disease increases the frequency of unfavorable BDI as BBI small-business., Affecting the rate of efficacy, safety and patient compliance to the treatment. Such a scenario, which also includes given more fragile patient as a child and evidently, systematic application of pharmacology anomic screaming and DBI smolders analysis of appropriate drug prescriptions, but it is hampered by the complexity of the interaction of 100s of molecular interactions.



David J. Miklowitz, PhD, Professor of Psychiatry in the Division of Child and Adolescent Psychiatry at the UCLA Semel Institute and a Senior Clinical Research Fellow in the Department of Psychiatry at Oxford University. His picture and an active team of researchers in Biological Psychiatry have been working tirelessly on the relationship between Family Structure and Interactions and its correlation in brain structure.

Mental Illness and Gun Violence, Changing the Narrative

Erin O'brien

Psychiatric Times, Vol 40, Issue 4

(<https://www.psychiatristimes.com/view/changing-the-narrative-mental-illness-and-gun-violence>)

Another day, another shooting, another finger pointing to mental illness.

With the extensive news coverage of gun violence, it seems there is a mass shooting in the United States every single day—but the reality is far worse.

According to the Gun Violence Archive, there were 44,313 gun violence deaths in the United States in 2022. Of these, 20,223 deaths were from homicide, murder, accidents, or defensive gun use and 24,090 were from suicide. Furthermore, 647 qualified as mass shootings¹, which are broadly defined as incidents in which 4 or more individuals—not including the shooter—are shot². Alarming, gun violence is now the leading cause of death for US children and adolescents³.

TABLE 2. Four Questions to Ask Patients When Discussing Guns²²

- **Do you have access to firearms?** *Risk assessment must go beyond this question, as “access” can be a varied term.*
- **Why do you own them?** *This must be asked without judgment.*
- **How do you store them?** *This is a good time to discuss locks, separate storage, and other important safety options.*
- **Do you understand the suicide risk firearms pose?** *If patients do not understand the risk, this can be a good time to educate them.*

Source: T Thrasher

Changing the Narrative

Ultimately, having more effective, factual conversations, not just with patients and peers, but in broader society, may be key in helping prevent mass shootings and gun violence.

“[We need to] disabuse politicians that persons with mental illness are the source of the gun violence epidemic and, hence, various restrictions on their liberty, the facile social cure,” Geppert told Psychiatric Times. “It is the too ready availability of firearms that has turned the resentment, anger, and fear of the self into a potential destruction of the other that is a force multiplier of trauma desperately in need of our knowledge and skills.”

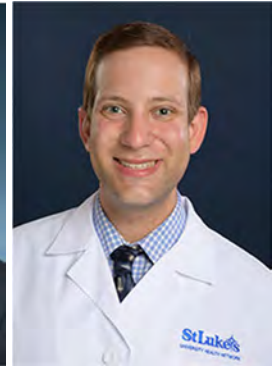
	2022 full year	2023 as of late March
Total deaths from gun violence	44,313	10,007
Deaths from homicide, murder, accidents, or defensive gun use	20,223	4265
Deaths from suicide	24,090	5742
Incidents qualified as mass shootings	647	130

Thrasher added: “[Let’s] embrace the conversation as a major part of what we do, not a side item. We all aim to reduce suicide, and risk mitigation around firearms is the most impactful thing we can do. Focus the conversation around public health. We are looking to reduce gun violence through the lens of public health. This has worked before in medicine, and it can work again. And do not be discouraged and assume this will all work ‘smoothly’ the first time. Consider it an ongoing educational experience that may need tolerance, patience, and elements of change management.”



Sports Psychiatry: Challenges Faced by Bullied, Disabled, and Transgender Athletes

AACAPs Presentation by:
Alexander Strauss, MD



Written by: Dustin Wong, DO and Christopher McCarthy, MD

Bullied Athletes

Sports play a positive role in the growth and development of children and adolescents, serving as a positive outlet for interactions amongst peers, a chance to relieve stress, and an opportunity to boost self-esteem. Additionally, sports foster time management skills, problem solving skills, and health-conscious decision making. In the pursuit of victory, teams go through trials and tribulations, fostering a sense of community and comradery amongst their members. Unfortunately, unhealthy situations may also develop, and players may be harmed while pursuing team unity.¹ In addition, athletes are often expected to prioritize winning at the expense of other areas of life (including both social and academic), potentially causing long-term consequences in both physical and mental health.

To join a sports team, players may undergo initiation rites or rituals that challenge a new member to show commitment that proves themselves “worthy” through feats of strength, intelligence, and tolerance. Initiation rites can instill relational and emotional bonds leading to positive influence on team cohesion; but in contrast, hazing rituals are unhealthy distortions of initiation rites that humiliate and endanger new members.¹ Hazing rituals can be perpetrated by coaches, parents, and peers, and can range from simple pranks to criminal misconduct, and can involve physical, emotional, and sexual abuse. Studies of athletes have shown that hazing negatively correlated with team cohesion and created feelings of resentment towards the perpetrators.¹ Hazing can have long term impacts on self-esteem and can result in depression (with suicidal thoughts and behaviors), anxiety, post-traumatic stress disorder, eating disorders, and substance abuse (including performance enhancing drug use) with 71% of victims of hazing reporting negative impacts from the experience.¹

Unfortunately, victims of hazing often suffer in silence. Of NCAA athletes, 80% experienced activities that would be classified as hazing; however, 60 - 95 % of those individuals stated they would not report the event. Multiple factors, including normalization of hazing, fear of retribution, unclear reporting guidelines, and team allegiance often prevent hazing activities from becoming known.² Individuals who engage in bullying are at an increased risk for violent offenses in the future and victims of bullying are more likely to struggle with self-esteem and experience depression and anxiety (with suicidal thoughts and behaviors).¹

Efforts to prevent both hazing and bullying involve educating teams, parents, and players about the dangers of these activities and advocating for an impartial reporting system for inappropriate activities. Improper behaviors should be met with severe penalization or expulsion. In addition, sports-related activities should be supervised to prevent inappropriate activities from occurring.

Disabled Athletes

It is important that authorities in the sporting world recognize the diversity of competitors and ensure that all have equal opportunities to participate. Players that have mental disabilities and physical disabilities are more likely to face discrimination, stigmatization, and social exclusion, and are more likely to be the victim of physical, mental, and sexual abuse. It is vital to advocate for the rights of players who struggle with physical and psychosocial disabilities and ensure that they are protected from discrimination and harassment.³

Individuals with mental illness are often the victims of stereotypes and unfortunately may be feared as a threat to the safety of others. Discrimination can take many forms and involve both overt and covert actions such as players being excluded from receiving services or excess burden imposed on a player for no legitimate reason. Discriminated and excluded athletes are more likely to feel disconnected from the school environment, struggle academically, and experience feelings of anxiety, humiliation, and anger.³

As sport involvement plays a critical and defining role during the formative and pre-adolescence years, efforts must be made to determine how participation can be adjusted for players suffering from physical, sensory, and intellectual disabilities. Many mental illnesses pose challenges in competitive environments due to emotional volatility and disruptive behaviors.⁴ In addition, mental illnesses can influence inappropriate behaviors, including swearing, aggression, hypersexuality, impulsivity, and intrusiveness.⁴ Having a mental illness does not excuse inappropriate behavior; however, behavioral challenges must be considered in an individual context.

Regrettably, many individuals in the sporting world are not trained to interpret and address behavioral challenges related to mental illness. Efforts to prevent discrimination and promote equal opportunities for individuals struggling with mental illness must involve communication with and education from mental health professionals to identify sport appropriate accommodations for individuals struggling with mental illness.³ Coaches and athlete programs should be counseled regarding appropriate developmental expectations, as key attentional milestones may be delayed or absent in individuals suffering from ADHD and other neurodevelopmental disorders. In addition, resources should be developed to help families and athletic programs identify individuals that would benefit from a mental health assessment.

Transgender Athletes

When comparing transgender to cisgender children, there is a statistical increase in suicidality as well as depression, anxiety, somatic, and conduct problems. Unfortunately, there is a notable lack of mental health services for this patient population. Data indicated 82% of transgender individuals have considered killing themselves and 40% have attempted suicide.⁵ Amongst transgender female athletes there is controversy amongst competitive advantages but no studies of athletes who transitioned during adolescents. Despite Title IX prohibition for sex-based discrimination in education, there is no clear addressment for gender identity or transgender students. Currently, there are multiple bills under consideration and 9 states with passed legislations, banning transgenders from participating on athletic teams.

One controversial case includes Lia Thomas from the University of Pennsylvania swim team who swam on the men's team for 3 seasons and then joined the women's team. She won the 500-freestyle in the NCAA Championship of March 2022, which attracted significant criticism. Currently, the NCAA requires 12 months of hormone therapy prior to competition, and Lia Thomas had 30 months by the start of her season in November 2021. Currently, there is no standard guideline across sports and levels of competition when it comes to competing transgender athletes, with some utilizing varying testosterone cutoffs and timeframe of receiving hormone therapy. There are multiple bills that restrict competitions, with some impacting athletes as early as elementary school. Notably, the International Swimming Federation (FINA) restricts transgender athletes from elite women's events and requires transgender swimmers to have transitioned by age 12 - a rule placed 3 months after Lia Thomas' win.⁶

Common amongst these athletes are concerns about unsafe environments such as bathrooms and locker rooms. For clinicians working with transgenders and particularly transgender athletes, it is important to acquire the patient's identity, preferred names, pronouns, and their transition plans (hormones, binding and tucking, etc.). Identifying the patient's goals and understanding the rules and laws locally will allow you to guide your care, while also working with the patient's families, schools, sport leagues, coaches, and trainers. Useful resources include Athlete Ally (focus on homophobia and transphobia), LGBT SportSafe (training for coaches/administrators), Transathlete (updated sports policies), and You Can Play (inclusion advocates).⁷

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Psychiatry Residency

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St. Luke's Psychiatry Residency is located within the Lehigh Valley roughly an hour away from Philadelphia. The residency, led by program director - Dr. Christine Marchionni - currently accepts 6 general psychiatry residents per class and will be expecting their first graduating class at the end of this academic year. In addition, the program has recently expanded to accept 2 additional residents in its rural track. All faculty are academically affiliated with Temple University Lewis Katz School of Medicine, and residents are trained in an integrated curriculum to develop to become clinically strong psychiatrists.



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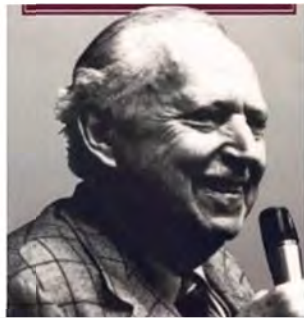
Family Psychiatry:

A Reemergence in the Family Theory and Therapy

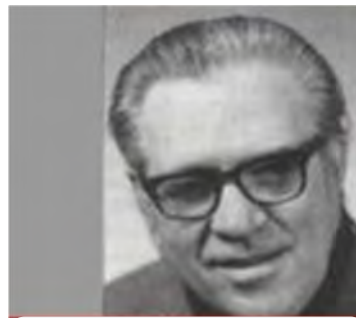
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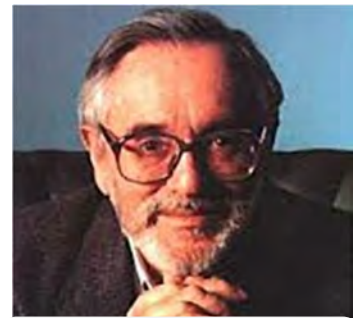
Nathan Ackerman



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Carl Whitaker



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Introduction

From inception, family therapy and family psychiatry were synonymous in the mind of pioneers in family theory. The fathers of family therapy were deeply steeped in an investigation and treatment of schizophrenia with a clear recognition of genetic factors effecting multiregional relationships parallel with intergenerational relational, structural and communication deviances.

The Pioneers included Nathan Ackerman MD, Murray Bowen MD, Don Jackson MD, Theodore Lidz and subsequently Lyman Wynne, MD.

They all had significant recognition and appreciation for schizophrenia and the related relational/interactional family patterns. They assumed such major protocol no clear in family therapy would never be lost.

The term of "family psychiatry" coined by John Howell, MD in 1975 to ensure that multiple major disorders treated by the psychiatrist are not lost or neglected by the brother feels the family therapy who was moving toward treatment

of less profound and more acute behavioral problems, particularly in children and adolescents, with interactional problems in her nuclear family playing a more decisive role.

Three major developments in the field of family intervention have produced a wealth of the findings about a major role of genetic factors in schizophrenia, depression and alcoholism. The delineation of family structures and pattern in the above disorders has disclosed the combined and interconnected in effect of genetic and family patterns as it has been demonstrated in the Finish Adoption Studies:

- A. The heavy loading of genetic factors or the level of family functioning has played a parallel role in the etiology of this disorder. Similar findings have been described with depression and alcoholism.
- B. Established patterns of high expressed emotions (EE) and communication deviance (CD) have been discharged to be connected with the course and relapse of the above major disorders.

C. The role of psychiatric diagnosis is correlation with family patterns has entered a new phase. At the inception of family therapy around the 1950s, the psychiatric diagnosis with poorly defined validated. Presently, the psychiatric diagnosis has not reached the ideal level of clarity correlating with dysfunctions of neuronal networks, higher level of intra and intercellular mechanisms, genetic factors, more refined epidemiological investigations within the cultural perspective and very importantly and matching family relational pattern. However, they are significantly more refined than in 1950s to 1980s and the importance of individual diagnosis can no longer be ignored without a heavy cost of ineffective or unjustified interventions. Furthermore, the decisive role of psychopharmacological agents endorses reliance on diagnosis to guide the selection of the most appropriate medications. Gone are the days that the family therapists could brag about demeaning the diagnosis and its totally relevance to therapeutics.

D. The development of "Systems of Care" has established different "levels of care" which guides the delivery of mental health services. They range from preventive services, outpatient treatment, crisis centers, acute inpatient care, partial hospitalization, residential treatment for adolescents and adults, rehabilitative services rehabilitative services for chronic mental illness and a range of services for combined disorders including mental health's disorders, substance abuse disorders and forensic disorders.

The necessity for such broad range of services is an opportunity for psychiatry to visit the long neglected model of "stages of illness" which is a fundamental model and general medicine. This will be consistent with medical admission of practice of "precise medicine".

E. "Staging of the illness"

General medicine has a long cherished the emphasis on the stages of an illness. A simple model will be restaging of the cervical cancer woman from "in situ" to stage IV cancerous lesion. The intervention for each stage is fundamentally different from another stage.

The stages and psychiatric disorders include:

1. Vulnerable and at risk stage of the disorder requiring prevention.
2. Transitional disorders at the time of stress which can be handled in the office of a family physician or pediatrician in consultation with mental health expert'.
3. Recognizable emotional disorder with functional disability which can be defined and treated successfully in an outpatient service.
4. Crisis disorder which can occur at home, in the school, outpatient treatment, residential and long-term treatment which requires intensive intervention necessary for stabilization.
5. Acute care psychiatric hospitalization for more serious or prolonged crisis situations
6. Repeated acute care psychiatric hospitalizations with certain populations such as borderline patients, very vulnerable children and adolescents, etc.
7. Residential treatment for the patient with multiple psychiatric hospitalization who continued to destabilize due to ineffectiveness of treatment or the nature of the disorder requiring a longer term intervention.
8. Rehabilitative services for patients with patients with chronic disorders and disability which requires rehabilitative, remedial and supportive services. The families are generally pertinent with the care of this population at an almost cost and greater than to the family

The Birth of Family Psychiatry

Progress in genetic research, biological psychiatry and pharmacotherapy has broadened the knowledge about the etiological factors in the inception, maintenance, and recurrence of major mental illnesses and emotional disorders. This progress has also substantiated the combined role of a variety of biological, interpersonal and psychological factors. It to feed of family psychiatry has been emerged. Contemporary family psychiatry provides a framework to address both the biological and interpersonal variables in major mental illnesses. Among other findings, the diathesis–stress theory (Rosenthal 1970) and the Finnish adoption studies (Tienari 1987) have provided

significant data emphasizing the combined role of biological and interpersonal variables.

Schizophrenia, depression and alcoholism are examples of disorders whose treatment involves a new integrative orientation of family psychiatry.

Diathesis–Stress Theory

The diathesis–stress or vulnerability–stress theory was first proposed by Rosenthal (1970) and effectively defined by Zubin and Spring (1977). It views the disorder as the product of 2 sets of variables: vulnerability and stressors. The vulnerability can be the result of genetic and biological factors, although psychological and interpersonal vulnerability can function in a similar fashion. Genetic factors have been studied best in schizophrenia, depression and alcoholism.

Finnish adoption studies

The Finnish adoption studies (Tienari 1987) produced data supportive of the combined and interconnected role of genetic and familial variables in the genesis of his schizophrenia. This study examined the level of family functioning, adaptability and organization of adoptive families by dividing them into 5 groups ranging from "optimally functioning" to "inadequately functioning" families. Although all families adopted children with comparable genetic vulnerability, the outcome of the children was significantly correlated with the level of family functioning.

Family variables in schizophrenia

Recent family studies have investigated the variables that can distinguish families with schizophrenic members from those with no schizophrenic members. The studies have looked at indicators of risk and have particularly focused on the three variables of expressed emotion (EA), of communication deviance (CD) and affective style (AS) (Goldstein 1987).

Expressed emotions (EE) refers to criticizing communications and negative attitudes in the family. Communication deviance (CD) refers to lack of

communication clarity. Affective style (AS) refers to negative emotional–verbal behavior in family interactions. The studies use the vulnerability–stress model.

Expressed Emotion (EE)

In 1962, all Brown reported that chronic male schizophrenic patients who had returned to live with their families following psychiatric hospitalization were more prone to rehospitalization than patients who went to other living arrangements. He and his colleagues then designed a prospective study to examine the affective atmosphere of the family and proposed the term "expressed emotion" (EE), a composite variable with the values of high and low, as an index of the family's criticism of and overinvolvement with the patient (Brown et al. 1962). A number of subsequent reports of British and American samples have indicated that the percentage of relapse and the schizophrenic and depressed patients in families with high EE is 4 times higher than in low-EE families (Hahlweg et al. 1989); Hooley et al. 1986; Vaughn and Leff 1976). The intervention with families high in EE, with the specific goal of reducing familial hostility and overinvolvement, have provided experimental evidence that EE is indeed causally related to the course of illness and a decrease in the level of EE results in relapse reduction (Hahlweg et al. 1989).

Communication Deviance (CD)

The family variable of CD was not studied by Wynne and Singer (1963), who looked at the group of the parents of his schizophrenic patients and compared them to his parents of nonschizophrenic patients. They found the lack of communication clarity and disturbances in maintaining attention in the parents of schizophrenic patients. Subsequently studies have indicated that CD is related to the severity of psychopathology and offspring, although some of the disturbances are nonschizophrenic in nature. Further studies also have indicated that high CD, together with high EE or negative affective style, can be a risk marker for schizophrenia spectrum disorders (Wynne 1987).

Affective Style (AS)

Affective Style (AS) as refers to the emotional–verbal behavior of family members during family discussions with patients. It is measured by counting the number of criticisms, guilt inductions, intrusions, and supportive statements made by the relatives.

Family intervention with depression

Deficits in social functioning in depressed patients are common and can persist in the absence of clinical symptoms. Depressed patients tend to be aversive with others and also to feel victimized by them. They engage frequently in escalating negative exchanges with their mates. Depressed patients and their spouses tend to verbalize their negative, subjective feelings more frequently than ordinary couples. The marriages of depressed women and men are characterized by friction, poor communication, dependency, lack of affection, overt hostility, silence, withdrawal, and tendency for husbands to view the spouse’s unspoken misery as an accusation (Coyne 1987; Haas et al. 1985). An intimate relationship with the spouse may be a protective factor against depression, and a good marital relationship seems to help neutralize the effects of the stress–producing situations such as the care of many young children and unemployment (Brown and Harris 1978).

Children of depressed parents are at risk for many psychological problems. The rate of diagnosable psychiatric disturbance in children of depressed parents can be as high as 40% - 50% (Coyne 1987). The risks to children is increased if (1) the depressed person's spouse becomes depressed or is unavailable to the child; (2) there are marital problems or a divorce (Coyne 1987); and (3) a supportive relationship with another adult is unavailable.

A model for prevention of depression in children of depressed parents has been empirically tested in the past decade and its positive outcome confirmed (Beardslee et al. 1997, 1998b).

Psychoeducational family intervention

Psychoeducational interventions enhance the capacity of the family to cope with illness and children by informing the family about the etiology, phenomenology, and treatment process with, for example, schizophrenic and depressed patients. At the same time, psychoeducational family therapy has enabled mental health professionals to intervene with families in ways that prevent further emotional crisis in the family. Application of the psychoeducational model to a child with depression and suicidality has been particularly productive (Brent 1997; Brent et al. 1997; Goldman and Beardslee 1999). The model has been applied preventively to a range of stressful and potentially pathogenic situations for children, such as pediatric cancer and death and dying (Koocher et al. 1996; McCreary et al. 1998; Pettle 1998).

Family intervention with alcoholism

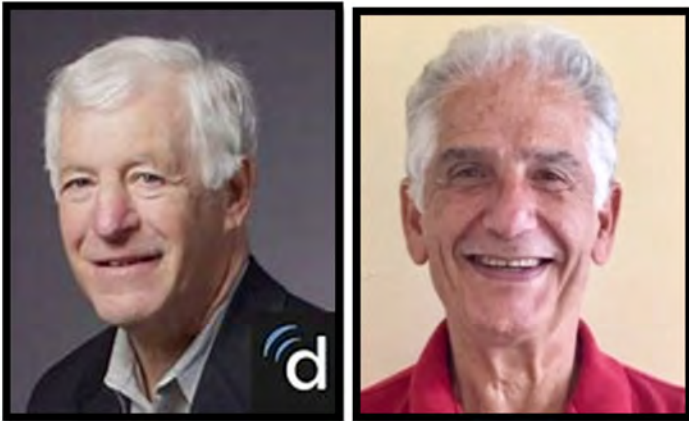
The investigation of the structure and dynamics of families of alcoholic patients, conducted over the past 3 decades, has produced definitions of "the alcoholic family" and the "alcoholic family identity". This family identity is formed when alcohol comes to play a critical role in the day-to-day behavior of the family. Alcohol becomes a central organizing principle in the family, limits the family's flexibility to adjust to changes and crises, and affects the family regulatory mechanisms such as rituals, routines and celebrations.

The transmission of alcoholism to the next generation is facilitated by the interruption in the family regulatory mechanisms. These mechanisms include family rituals and "ritual process" which is a systematized form of communication that contributes to the establishment and preservation of the family's identity and collective sense of self (Wolin an Bennett 1984).

Equally productive and influential has been in the range of family interventions with adolescent substance abuse, using a multimodal approach and multisystemic approach.

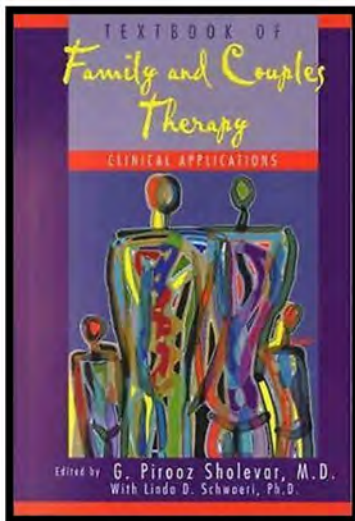
Family classification and diagnosis

The diagnostic and statistical manual of mental disorders series including DSM-V and DSM-V TR has rekindled the interest in empirically based family classification and diagnostic system. A family classification system has been produced by the group for advancement of psychiatry (GHP) although the work has to be correlated with many changes in DSM-V and DSM-V TR particularly in the area of childhood disorders such as disruptive mood dysregulation disorder (DMDD) and autistic spectrum disorder (ASD).



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Family intervention in psychiatric hospitals and residential treatment centers

The goals of family-oriented model of inpatient interventions are to prevent rehospitalization, maintain fragile ties between the family and the patient, and reach

the highest functional level for the identified patient and the family. The inpatient family intervention (IFI) model accepts the patient's illness as the focus of treatment while recognizing the importance of the family variables. Based on the stress-diathesis model and guided by recent research on EE, the relatively "causative" biological factors are placed in perspective along with familial and environmental influences. Medication is considered a natural ally of family intervention (Glick et al. 1985, 1993). The psychoeducational model of IFI has been proposed by Glick et al. (1985, 1993). Sholevar (1983, 1986) has proposed a psychodynamic model of family intervention particularly applicable to hospitalized adolescents. His model has much applicability to the patients who are in residential treatment centers (RTC).

Staging of family disorders

The staging of family disorders and problems has become more significant with the locus of application of family interventions. The Lap-Band will be described later under the level of care.

Disease staging is a classification system that he uses diagnostic findings to produce clusters of patient's who required similar treatment and have similar expected outcomes. It can serve as the basis for clustering of clinically homogeneous patients to assess quality of care, analyze clinical outcome, reviewed utilization of resources, assess efficacy of alternative treatments, and assign credentials to the providers ideally, a diagnostic label should have explained to data about "the location" of the problem as well as its cause, severity and prognostic outcome

Staging theory has been well applied in cancer treatment. In addition to the benefits described above, it facilitates the collaboration between the patients, and multiple professionals in different disciplines involved in treatment to address prognostic outcome which is of paramount importance to the patient's and the providers.

In terms of application to family therapy, the following may be a convenient and practical system for staging:

Stage I: Prodromal manifestations of rescan vulnerability which can lend itself to preventive measures and consultation with the family to ensure optimal outcome.

Stage II: Disorder with no complications.

Stage III the disorder has produced limited complications such as marital problems spilling into children's adjustment and behavior

Stage IV the disorder has involved multiple domain and has systemic complications

Stage V: The problems have reached the stage of disability and chronicity which requires rehabilitative interventions.

Levels and systems of care

The levels of care provide the guidelines for delivery of mental health services. They range from support and preventive care for their vulnerable and at risk population to rehabilitative care for chronically disabled patients with the majority of the burden of care falls on the families. The psychiatrists and child psychiatrist are professionals who are intermittently involved and trained in old levels of care. The psychiatric care on each of these levels is, or should be, family-based. The knowledge of age level of care is essential or highly desirable in treatment planning when the practitioner knows of the previous or next level of care indicated.

The following levels of care closely correspond to stage of disorder and illness. Some level of cares can be used at different stages of treatment such as partial hospitalization can precede or succeed acute inpatient care or residential treatment.

1. Consultation with his family or health provider for vulnerable acute risk population (children).
2. Outpatient treatment
 - Crisis intervention/crisis centers
 - Multiple successive crisis interventions

3. Acute psychiatric inpatient

Multiple psychiatric inpatient care

4. Residential treatment intervention

5. Rehabilitation in home based intervention, partial hospital, outpatient treatment

A complex and challenging issue is when the levels of care alternate and his psychomotor and repetitive pattern. For example, mom the patient is admitted to the short-term child psychiatric units 3 or 4 times in rapid succession. He is assigned to family-based services at home to prevent future hospitalizations and admitted to the patient's subsequently to a residential treatment centers. The goal of the residential treatment center to establish stable therapeutic environment away from the stresses at home so the patient can be sufficiently stabilized and rehabilitated. However, some patients continue to be admitted once or more to short term psychiatric inpatient for further stabilization and returning to the residential treatment facilities. The patient is returned to the partial hospital program or family-based services following discharge from RTF. A continue to require him acute care hospitalization, all some frequently, and then return back to partial hospital program and family-based services.

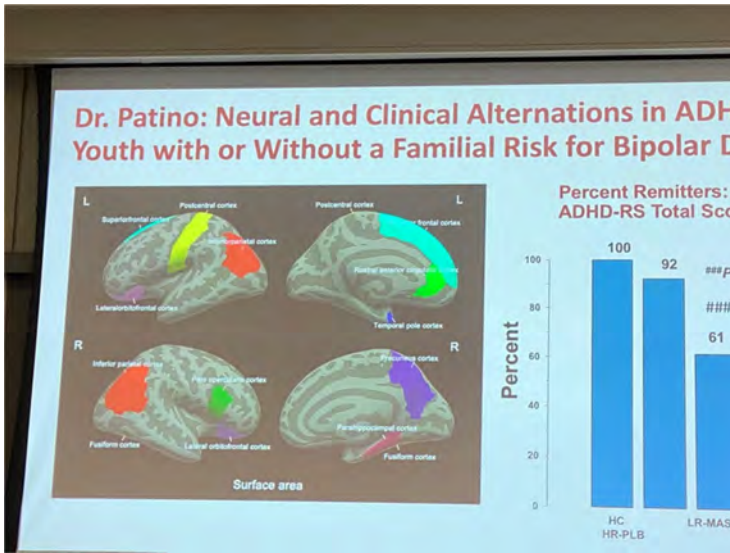
Family psychiatry is in an advantageous position to identify the principal contributors to this pattern and establish a preventive and corrective measure.

Conclusion

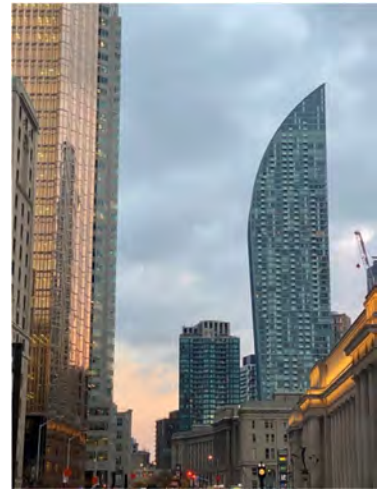
The dramatic move toward "precision medicine" and "precision psychiatry" and "precision biological psychiatry" challenges the family psychiatrists to apply and further define the knowledge of advanced diagnosis, precise intervention, normal staging of the illness and multiple level of care to enhance treatment effectiveness with families and its members.

Annual Meeting American Academy of Child and Adolescent Psychiatry

























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