PANHANDLE HEALTH

A QUARTERLY PUBLICATION OF THE POTTER-RANDALL COUNTY MEDICAL SOCIETY

WINTER 2025 | VOL 35 | NO.1

MENTAL HEALTH

You Take Care of Your Patients.

We'll Take Care of the Banking.

Alisha Milam

Vice President P&E Private Banking

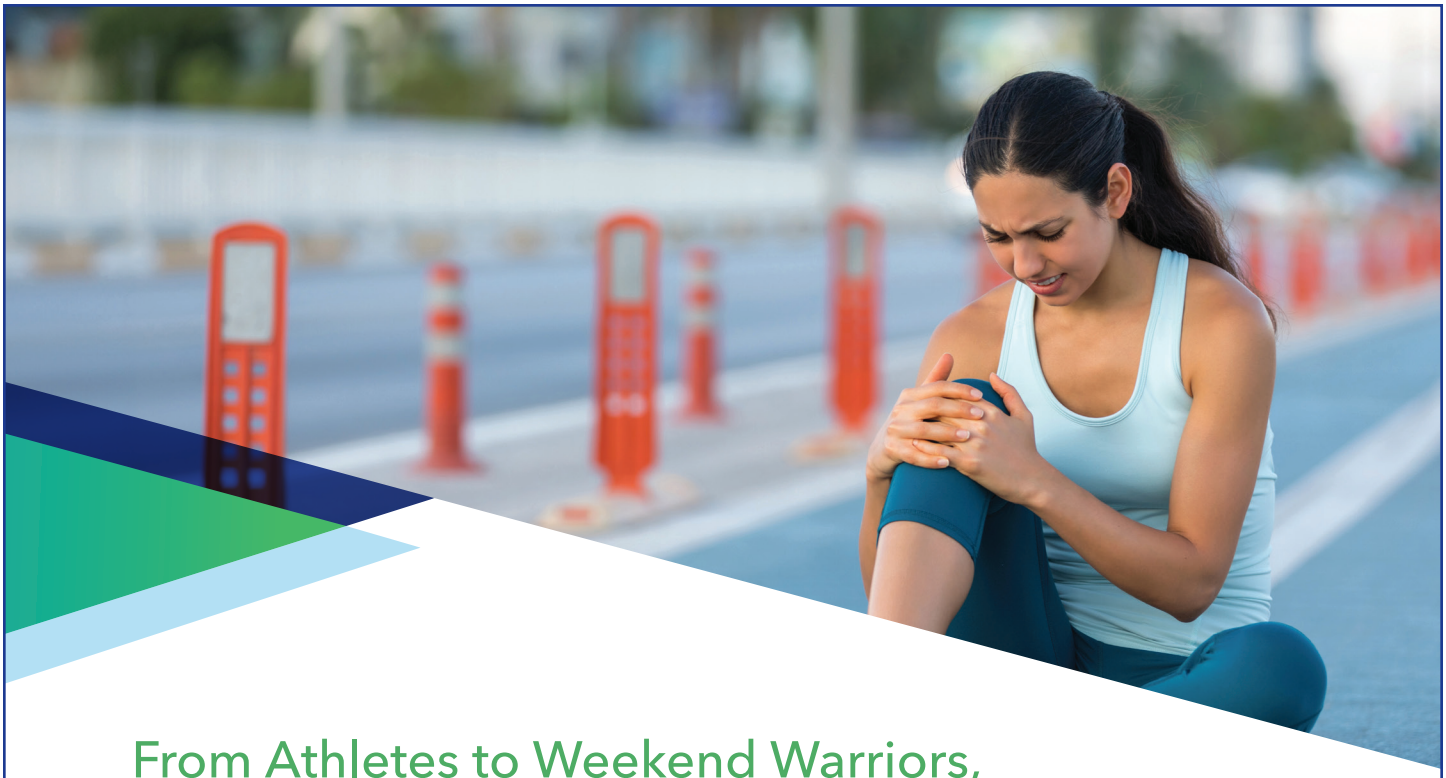
P: 806-356-5890 | **C:** 806-674-6134

alisha.milam@anb.com | NMLS# 737134

Amarillo National Bank

Awesome Service

1500 Coulter Street, Suite 3 | Amarillo, Texas 79106 | **anb.com**



From Athletes to Weekend Warriors,

WE HAVE YOU COVERED!

If you have suffered an injury to your knees or hips, an orthopedic surgeon can help you relieve pain and regain function using minimally invasive techniques. These techniques often result in a quicker recovery and fewer complications.

Our orthopedic surgeons treat a variety of conditions, including:

- Bone fractures
- Tennis elbow
- Carpal tunnel syndrome
- Trigger finger
- Anterior hip replacement
- Shoulder and knee issues
- Sports injuries

In addition to surgery, orthopedic surgeons can recommend treatment plans, including rehabilitation, exercise and other therapies to help patients get back to an active lifestyle.

Visit **nwtpg.com/ortho** for more information or to book an appointment.

Northwest Physicians Group

Individual results may vary. There are risks associated with any surgical procedure. Talk with your doctor about these risks to find out if minimally invasive surgery is right for you. For language assistance, disability accommodations and the nondiscrimination notice, visit our website.
252923864-2952815 11/24

Manage Costs & Get Group PPO Health Insurance

WITH OR WITHOUT EMPLOYEES

Owners **Independents**

Whether you own a practice with employees or practice independently, most physicians want to find ways to reduce expenses. And one of the most significant expenses for physicians is health insurance.

TMA Insurance Trust is focused on helping all Texas physicians manage costs and operate more efficiently. So we want you to know about special health insurance options that can help you control costs and get the coverage you really want. This goes for practice owners and independents – with and without employees.

- **For practice owners with group coverage for their practice** there are opportunities to help control the cost to your practice and be able to offer your employees health insurance – with a mix of group PPO and HMO plans.
- **For practice owners with staff on their own health coverage** (a spouse's plan or that of another provider) you may be able to get group PPO coverage just for yourself and your family.
- **For partners with no W-2 employees**, you may be eligible for group coverage only for yourself. You'll need to provide partnership documentation and the company's SS4 or recent K-1 (Form 1065).
- **For physicians who own a business with their spouse, or their spouse is a W-2 wage employee**, you may qualify for group coverage even without partnership documentation.

TMA INSURANCE TRUST

LIFE ★ HEALTH ★ INCOME ★ PRACTICE

Contact a TMA Insurance Trust advisor for more details and to benefit from unbiased guidance and advice. They can be reached at **1-800-880-8181**, **Monday through Friday from 8:00 AM to 5:00 PM, CST**, or scan the QR code to call. ▶

SCAN TO CALL

PANHANDLE HEALTH

A Publication of the Potter-Randall County Medical Society

WINTER 2025 | VOL 35 | NO. 1

CONTENTS – Mental Health

On The Cover: ***"Pueblo"*** by Danny Gamble

PANHANDLE HEALTH is published quarterly by the Potter-Randall County Medical Society, (806) 355-6854. Subscription price is $12.00 per year.

POSTMAN: Send address changes to PANHANDLE HEALTH, 1721 Hagy, Amarillo, Texas 79106. ISSN 2162-7142

PHOTOCOMPOSITION AND PRINTING BY COLORART-AMARILLO.

President's Message

by Nicole Lopez, MD, FAAFP

As winter approaches, with a crispness in the air and Christmas music in the stores as soon as Halloween was over, it is no surprise that the holiday season is upon us. For many people, this is their favorite time of year--a time for family, friends and great food. But for some, the holidays bring stress, worry and sadness. Although I absolutely love Christmas, this time of year is also bittersweet, with the loss of my parents and with grown children starting college, jobs, and family traditions of their own. I am so glad for this issue of Panhandle Health that focuses on mental health and for our colleagues in this field who serve as licensed professional counselors, social workers, psychiatrists and primary care physicians.

Thanksgiving reminds us to be grateful for many things. Often, it is a loss that reminds us of how fortunate and blessed we are. The first Thanksgiving without my kids was spent with my stepgrandma and with my dad and stepmom at an assisted living facility. I did not know then that it would be my last Thanksgiving with my dad, and I cherish those memories now. Having no access to a working EHR at Texas Tech for the past 2 months has definitely made me realize how fortunate we are, now that I am trying to navigate the world of paper charts again. Being able to see patients and to work in a supportive environment as a family doctor is something I am thankful for--especially with the added stress of writing out paper prescriptions again!

I think it is important to remember to be kind to one another; when a patient is rude to the front desk or a nurse is late to work, you may never know what they going through or what is happening at home. As a single parent, I often struggle with juggling all of the demands of being a physician, mom and community volunteer. I have been honored to be a part of the Potter Randall County Medical Society, and I know that I would not been able to serve without the rest of the Board's input and support, as well as that of my family. I am very excited about the outreach that we are planning with TMA's Walk with a Doc as well as the Alliance's support for programs like Hard Hats for Little Heads. We had a great turnout last spring for our Women Physicians section, and it was good to see a lot of faces at our business meeting in October. As the new year rolls around, we will be hosting another meeting to call for nominations for officers as my term will be ending.

I have enjoyed being able to serve as President the past couple of years and wish each of you a happy, healthy Holiday season.

Yes, I Would Like To Contribute To The Potter-Randall County Medical Society Endowment Fund

The endowment fund was established in 1981 to promote the advancement of general education in medical science in Potter and Randall counties through discussion groups, forums, panel lectures, and similar programs. It is the hope of the society that, through the endowment fund, the work of our physicians will be continued by increased public awareness and understanding of the advances in medical science.

We are happy to accept memorials and/or honorariums. Notification of gift is sent immediately. Amount remains confidential. Your contribution is tax deductible. Please make checks payable to Potter-Randall County Medical Society, and send to PRCMS, 1721 Hagy, Amarillo, Texas 79106.

Enclosed is my contribution of $_____

Print Name_____

Address _____

City _____ State _____ Zip _____

My gift is in memory of _____ My gift is in honor of _____

Please send acknowledgement of this gift to:

Name _____

Address _____

City _____ State _____ Zip _____

Executive Directors' Messages

by Cindy Barnard, Outgoing Executive Director
& Katt Massey, Incoming Executive Director

Dear Readers,

As I prepare to step down after 34 incredible years with this organization, I want to take a moment to reflect on our journey together and express my heartfelt gratitude.

When I joined, I could never have imagined the remarkable experiences and relationships that would shape my career. Together, we've navigated challenges, celebrated milestones, and driven meaningful change in our community. Each of you has played a vital role in our success, and I am deeply grateful for your support and dedication.

I am proud of what we have achieved—launching initiatives that have made a lasting impact, fostering partnerships that have expanded our reach, and cultivating a culture of collaboration and innovation. It has been a privilege to work alongside such talented and passionate individuals.

As I transition into retirement, I carry with me cherished memories and the knowledge that this organization is in capable hands. I am excited to see where you will take it next and how you will continue to build on our legacy.

Thank you for the wonderful years, the laughter, and the shared purpose. Though I am stepping back, I will always remain a supporter of our mission and a friend to this community.

With warmest regards and best wishes for the future,
Cindy Barnard

Hello PRCMS Members and beyond,

I am the new Executive Director of the Potter-Randall County Medical Society.

Amarillo is dear to my heart. I will self-proclaim that I am its biggest fan. This community has given me and my family so much, and contributing to what it has to offer the Panhandle is my passion.

2024 was jam packed for me, from Rotary to HOODOO Mural Festival, Opportunity School's LIPS, and then Christmas Round-Up, with a few things in between. I have begun to slow down on my volunteer positions within the community--not stepping down but refocusing. So, when the Executive Director position at PRCMS was posted, I knew it would be a good fit for me.

I am ready to focus on PRCMS. Cindy left big shoes for me to fill – a size 34 (year) -and I am excited about supporting a group of health care providers who pour themselves into the community every day. I look forward to meeting you all.

We hope you can join us for "Walk with a Doc." It will begin at Medi Park in February 2025. Stay tuned for details.

Katt Massey

Our Next Issue Of
Panhandle Health
Features:
Maternal Health
The 1000 days
with Guest Editor:
Dr. Christine Garner

Message from the Potter-Randall County Medical Alliance

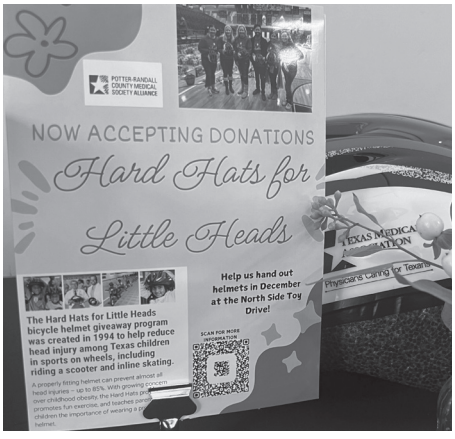
by Alena Martin & Madeline Lennard, Co-Presidents

2024 has been a year of rebirth and growth for the Potter Randall County Medical Alliance. Fun membership events have been a priority for the board, and we hope you have enjoyed them as much as we have. This year we've hosted a BUNCO night, medical student and resident outreach events, a family potluck and BBQ competition and a cookies and costumes daytime event for Halloween. We have intentionally planned events to hopefully reach all facets of our membership and really appreciate everyone's enthusiastic reception and attendance. Our intention is to work to blur the line between spouse and physician and welcome all members of the medicine family to the Alliance.

September brought back an annual member favorite; the Fall Couples Social. A beautiful, September evening played host to the outdoor social event at the SchniederJones shared home at Lake Tanglewood. Friends, old and new, networked and caught up over delicious street tacos from a local food truck, hand shaken specialty cocktails, and live music. Our board heard from many of the medical society members who were glad to place a face-to-name for the many referrals they share. We were also glad many members with young families took the evening as an opportunity for an easy, fun date night.

The Couples Social served to kick off our 2024 fundraising efforts for our Hard Hats for Little Heads event at The North Side Toy Drive. We are proud to announce that the Alliance has raised $2000 this year and recently delivered our first set of books to Heal the City as part of TMA's Texas BookShare initiative. Additionally, we will hand out helmets to area kids on December 14th. Our community outreach continued with the Alliance providing cookies and speaking about our organization at a grand rounds event hosted by TTUHSC in recognition of Physician Suicide Awareness Day.

We have had a fun year in 2024 and cannot wait to dance and dine with everyone in January. Save the date for "Twirl Your Girl", an evening of steak and country dance lessons on January 16th at The Western Horseman Club. Thank you again for being an active, enthusiastic membership. Happy Holidays everyone!



Guest Editorial

by Amy Stark, MD

Dear Panhandle Health Reader,

I was so excited when I was asked to be the guest editor for this issue of Panhandle Health, and that there was an entire issue dedicated to mental health. By way of introduction, I am a psychiatrist and the Regional Chair of the Psychiatry Department at Texas Tech University Health Sciences Center in Amarillo. I have dedicated my life to treating mental illnesses and teaching future physicians about psychiatry. Being an educator is one of the best parts of my job, and this issue of Panhandle Health feels like a natural extension of that.

Mental illness is common. According to the CDC, more than one in five adults live with any mental illness (https://www.cdc.gov/mental-health/about/index.html). That means odds are you or someone you care about has struggled with a mental illness at some point. As a physician engaged in patient care, even if you aren't a psychiatrist, you will be caring for patients with psychiatric needs--especially out here in the Panhandle where my primary care colleagues treat the vast majority of psychiatric illness. This is due to a nationwide shortage of psychiatrists that is felt even more acutely here at home. The more we talk about mental health, the better off we'll be – how to recognize psychiatric issues in our patients, the barriers facing patients seeking care, and how to care for our own mental health as physicians. These conversations help to break down the stigma that is still alive and well for people with psychiatric diagnoses.

Recognizing that many of the medical students who pass through my office will not pursue psychiatry, there are lessons that I try to impart to them. These lessons aren't part of the curriculum and don't really show up on a test. As an introduction to this issue of Panhandle Health, I wanted to share these lessons with you, too.

LESSON #1: MENTAL HEALTH IS HEALTH.

We should be conceptualizing mental illness the same way we do physical illness. When you've been struggling with something like reflux, you go see your doctor, you ask for help, you make lifestyle changes and you take medications if needed. I would wager that most patients wouldn't hesitate to make that appointment and wouldn't feel any shame in filling that prescription for omeprazole. Why should it be any different for mental illness? My hope is that we create spaces in our practices that invite patients to ask for help when they need it without fear of judgement, that we teach our community to prioritize their mental health, and that we work to destigmatize going to therapy or taking psychiatric medications.

With my students, I always try to highlight the complex interplay between physical and mental health. The relationship is bidirectional, so it behooves non-psychiatric physicians to recognize and treat mental illness when present. If you're looking for a quick read that backs this up, check out The Heart and Soul Study by Ruo et. al from JAMA in 2003 (Ruo B, Rumsfeld JS, Hlatky MA, et al. Depressive symptoms and health-related quality of life: the Heart and Soul Study. JAMA. 2003 Jul 9; 290:215-221).

LESSON #2: THE DIAGNOSIS ISN'T THE DESTINATION.

We all know that arriving at an accurate diagnosis is important, but in psychiatry that diagnosis isn't our final destination. I try to explain to my patients that a diagnosis helps us guide treatment and talk to other providers so we're all on the same page, but, at the end of the day, I don't want patients to overidentify with a diagnosis. I am more interested in their functioning than in the words we use to describe their illnesses. Our goals should always be to decrease symptom burden, improve functioning and enhance quality of life. Social media has given us access to more information than ever and helps connect us with people with shared experiences, but it also exposes us to vast seas of misinformation. There are corners of social media platforms that seem to romanticize mental illness, and we have seen more patients come in seeking "popular" diagnoses. I use these encounters as an opportunity to explain that it is always a good time to wonder and learn about ourselves. A diagnosis is unlikely to be the key to earth-shattering changes in their lives, but I am glad they are asking for help, and I am happy to help them learn about themselves and find ways to improve their lives (see lesson #4 below).

LESSON #3: LISTEN MORE THAN YOU TALK.

Once in a blue moon, someone will tell me they are interested in psychiatry because they love talking to patients. I always ask them how they feel about listening to patients. I love getting to hear patients' stories and playing detective in piecing together the clues of illnesses. We can't look at a brain scan or draw any blood tests to determine what psychiatric illness may be present. That means we come to our diagnostic impressions through the clinical history, though listening to our patients. I try to help my students learn to ask questions that invite patients to share their narratives and create space for them to explore their symptoms in a safe environment. On my clinic

days, I do relatively little talking. I ask questions to get the conversation going and to clarify patterns and symptoms, but I listen much more than I talk. There is therapeutic value for the patient in simply being heard and feeling understood. Learn to listen.

LESSON #4: MEDICATIONS AREN'T ALWAYS THE ANSWER.

This may be a surprising lesson coming from a psychiatrist. Not every feeling needs to be medicated, nor should it be. There are times when sadness is a normal, appropriate reaction—for instance, grieving the loss of a loved one. Anxiety can serve an adaptive purpose to keep us safe or prepared. Especially with young patients, it can be beneficial in the long term to help them find ways to cope with negative emotional states instead of just reaching for a "PRN" or as-needed medication.

Certainly, when functioning is impaired, we should consider treatment, but again, treatment isn't always going to be medications. I know I have a bias here, but I think everyone should be in therapy. Learning about ourselves and developing skills to process and manage our emotions is one of the best gifts we can give to ourselves. A nice bonus: there are no side effects to therapy! In medicine, we often recommend "lifestyle changes" which usually adds up to a healthier diet, better sleep and making time for physical activity. These lifestyle changes have a role in psychiatric illness, too. Movement is one of the best treatments for both physical and mental ailments. Making time for joyful movement helps with stress management, energy and mood. I tell my patients that they don't have to be pounding out their 10,000 steps on a treadmill, but just to find a way to move their body each day that brings joy: dodgeball, belly dancing, walking the dog – the world is your oyster.

I think one of the marks of a good psychiatrist is not just knowing when to prescribe medications, but when not to prescribe and when to deprescribe. This can be a challenge in a fast-paced world where people want quick fixes for things, but helping our patients by developing well-rounded treatment plans that include more than just pharmacological interventions will always be the best approach.

In this issue, you will read about psychiatric issues across the lifespan and in special populations. You will learn about some of the unique challenges and opportunities for psychiatric patients in the Panhandle. You will learn about some exciting treatment options (not just medications!) that are newly available or on the horizon. I hope you find this issue enjoyable and educational, and the lessons I've shared are helpful to you. If we are able to dispel one myth about mental illness or chip away just a bit at the stigma that still exists for psychiatric patients, then we have successfully done our job here. Thank you for spending time with us learning and growing and for your commitment to our community.

With Gratitude,
Amy Stark, M.D.

If Mama ain't happy, ain't nobody happy; Perinatal Psychiatry and a call to treat Mama

by Ruth Grant, MD and Kate Jurek, MS4

INTRODUCTION

About 208 million women worldwide get pregnant every year (2). While pregnancy and childbirth can be a joyful time, it is also an incredibly stressful time for most women. On the Holmes and Rahe Stress Scale, a list used to assess 43 stressful life events that can contribute to illness, pregnancy and gaining a new family member ranked twelfth and fourteenth (13). Unplanned pregnancies, which account for nearly half of all pregnancies, present even more challenges and often force women to make difficult decisions about abortion, relinquishing a child to adoption, or raising a child without the necessary financial and/or emotional support (15). Whether intended or unintended, pregnancy and the addition of a new child result in profound changes for a woman. Indeed, there are few areas of a woman's life that are left unchanged by pregnancy and motherhood. A woman's body, career, finances, sleep, time, and brain are often forever changed.

We are just beginning to understand how a woman's brain is changed by pregnancy and motherhood. New research using magnetic resonance imaging (MRI) shows widespread reduction in cortical gray matter volume and increases in white matter during pregnancy (12). Some of these structural changes persist up to six years postpartum, whereas others revert to levels similar to those of the preconception period by two months postpartum. Interestingly, pregnancy alone does not account for all brain changes seen in motherhood, as evidenced by the fact that adoptive mothers also experience notable changes in brain activity (8). These structural and functional changes are theorized to help mothers recognize and respond to their baby's needs. However, they may also contribute to the development of perinatal mental illness. While it is unclear whether genetics, hormonal fluctuations, structural changes in the brain, or stress contribute most to the development of perinatal mental illness (another version of the age-old nature vs. nurture debate), it is abundantly clear that, no matter the cause(s), perinatal mental illness is common and takes an enormous toll on everyone involved.

PREVALENCE

Many women experience slight mood changes, anxiety, and emotional lability during pregnancy and then following childbirth. These symptoms are likely due, at least in part, to hormonal changes and are normal. These symptoms do not necessarily warrant treatment. In contrast, perinatal mood and anxiety disorders (PMADS) are mental health conditions that significantly interfere with a woman's life, and warrant further assessment and treatment. The perinatal period is defined as pregnancy and the first year postpartum. The World Health Organization (WHO) estimates that approximately 10%-15% of women will develop a PMAD (29).

Perinatal anxiety disorders are common (15-23%) and include generalized anxiety disorder (GAD), posttraumatic stress disorder (PTSD), and obsessive compulsive disorder (OCD). Perinatal anxiety disorders may go unrecognized initially, because physical symptoms of anxiety (including fatigue, irritability, tension, difficulty concentrating, and insomnia) may be dismissed as normal in pregnancy and postpartum (23). Common worries in perinatal GAD, include worry about the baby's wellbeing, worry about one's own physical health or ability to be a good mother, and worry about dying. PTSD often presents with hypervigilance, irritability, nightmares, and unwanted memories or flashbacks. Miscarriage, abortion, preterm delivery, stillbirth, and difficult deliveries may result in a mother having perinatal PTSD. Perinatal OCD often presents with unwelcome thoughts, images, or urges to harm the newborn. In her book, "Good moms have scary thoughts: A healing guide to the secret fears of new mothers", author Karen Kleiman explains that over 90% of mothers have intrusive thoughts about their baby (14). Even though most mothers experience these thoughts, mothers are often afraid to voice these worries for fear others will think poorly of them, or worse, report them to child protective services. Again, while it is normal for mothers to worry about their children, the anxiety experienced by mothers with perinatal anxiety disorders is so frequent, intense, and persistent, that it hinders a woman's ability to function normally.

Perinatal depression affects approximately 1 in 7 mothers and presents with sadness, indifference, and changes in sleep and appetite. Some mothers feel worthless or guilty. Others complain of difficulty concentrating or making decisions. Suicidal ideation is common in women with perinatal depression, with estimates ranging from 5 to 14% (18).

Postpartum psychosis is an extremely rare disorder, affecting 0.1% of new mothers. Symptoms include delusions, hallucinations, and disorganized thoughts or behavior. While bipolar disorder is a strong predictor of this condition, over 50% of women with postpartum psychosis have no prior psychiatric history (6).

RISK FACTORS FOR PERINATAL MOOD AND ANXIETY DISORDERS

Risk factors for PMADs include history of mental illness, biological factors, poverty, intimate partner violence, substance use, absence of a social support network, racism and discrimination, extreme stress, exposure to violence, natural disasters, and trauma (29). Unfortunately, pregnancy is associated with an increased risk of intimate partner violence and homicide. In fact, the leading causes of pregnancy-associated deaths are homicide, suicide, and drug overdose (4). Pregnancy-associated homicides accounted for 8.4% of maternal mortality deaths. African American women, women under the age of 25, and unmarried women are at the highest risk for pregnancy-associated homicide (4).

CONSEQUENCES OF PERINATAL MENTAL ILLNESS

The consequences of PMADs are widespread. Prenatal exposure to maternal depression is associated with stillbirth, preterm birth, low birth weight, attachment difficulty, and detrimental effects on cognitive, behavioral, and psychomotor development of the child (24). Depressed mothers have been found to be more punitive, hostile and rejecting, and less responsive to their children (21). Children of depressed mothers have significantly higher rates of various psychopathologies in adolescence including depression, oppositional defiant disorder, and conduct disorder (21). While it is well-known that mental illnesses can be inherited, this increased risk of psychopathology in children of depressed mothers is not explained by genetics alone. Research has shown that children adopted by mothers with depression are also at risk (24).

Partners of people with PMADs also bear the consequences of untreated mental illness. People with anxiety and depression are often irritable, and they may take out their frustration on their loved ones. Partners of people with PMADs may feel frustrated, disconnected, or helpless. They are also at increased risk of developing a PMAD themselves. While the rate of partners developing a PMAD is 10%, this rate jumps to 50% if the birthing parent has a PMAD (27).

Maternal consequences of untreated mental illness include relationship difficulties, social isolation, physical health problems, maladaptive substance use, missed work, unemployment, poverty, homelessness, and suicide. Research on the financial toll of untreated PMADs in the United States estimated that the societal cost of untreated PMADs from conception through 5 years postpartum was $14 billion in 2017, or ~$32,000 per affected mother-child dyad (19). While some of these costs are absorbed by employers and insurance companies, the vast majority of these financial costs are borne by the mother. Drug-related deaths, suicide, and homicide account for 22% of pregnancy-associated deaths in the United States (4). In 2022, nearly 49,500 people in the United States died by suicide (5). Maternal suicide has tripled over the last decade and is the leading cause of maternal mortality, accounting for about 20% of postpartum deaths (1). Of note, more than half of pregnancy-associated suicides involved intimate partner conflict (4).

TREATMENT / PREVENTION

Treatment of most illnesses begins with prevention. PMADs are no different. Exercising, getting sufficient sleep, eating a balanced diet, practicing mindfulness and gratitude, connecting with supportive friends and family members, spending time in nature, and avoiding alcohol and other substances are known to improve mental health. When prevention fails, the next step in treatment is identification. In the United States, the expected number of prenatal medical visits is between 8-14 for a low-risk, term pregnancy (28). While these visits tend to focus on the physical health of both the expectant mother and the neonate, they do offer an opportunity for physicians to assess for PMADs. Screening tools, including the Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 (GAD-7), and Edinburgh Postnatal Depression Scale (EPDS) may provide some insight into whether a woman is experiencing symptoms of depression and/or anxiety. However, physicians must recognize that these screening tools, while helpful, have a limited scope and do not assess for symptoms of mania or psychosis. In addition, women may be hesitant to answer these questionnaires honestly. It is no secret that stigma is a major challenge in addressing mental health disorders. This stigma is even more pronounced in the perinatal period, when mothers may feel guilty for being depressed during pregnancy or after childbirth. This guilt may be exacerbated in mothers who struggled with infertility prior to getting pregnant. It is estimated that 60% of perinatal women with depressive symptoms do not receive a clinical diagnosis--and that 50% of those with a diagnosis do not receive treatment (21). Therefore, it is imperative that physicians have a high index of suspicion when assessing for PMADs.

PSYCHOTHERAPY

Psychotherapy is a mainstay of treatment for PMADs. Interpersonal psychotherapy (IPT) and cognitive-behavioral therapy (CBT) are effective treatments for mood and anxiety disorders. While goals for therapy differ, they often include processing trauma, setting/maintaining boundaries, and learning new communication strategies in hopes of improving relationships, changing unhelpful behaviors, and developing coping strategies to deal with anxiety or overwhelming emotions. Research shows that about 75% of people who enter psychotherapy benefit from it (3). Of note, the most important predictor of success in therapy is the quality of the relationship between therapist and client (9). Therefore, physicians recommending therapy should tell patients that it may take a few tries to find a therapist who is a good fit.

EXERCISE

Exercise may be an effective complement or alternative to psychotherapy and pharmacotherapy. Exercise triggers an increase in endorphin levels and neurotransmitter production. Walking, jogging, yoga, strength training, and dancing have all been shown to reduce depression levels. The benefits of exercise tended to be proportional to the intensity prescribed--with vigorous activity being better--but even light physical activity (walking, yoga) provides clinically meaningful effects (25).

SLEEP

Fragmented maternal sleep is an under-addressed modifiable risk factor for PMADs, both during pregnancy and postpartum. Postpartum, a mother's nocturnal sleep is typically frequently interrupted and often insufficient due to infant night feedings. Sleep disturbances significantly increase the likelihood of suicide attempts and suicidal thoughts (11). Therefore, researchers suggest that "in the setting of postpartum depression, periods of consolidated sleep should be viewed as a crucial daily medicine." (17). They recommend protecting one 4-5 hour period of consolidated nighttime sleep during which a partner or other adult takes over 1-2 infant night feedings.

PHARMACOTHERAPY

Neurotransmitters are chemical messengers that carry signals from one nerve cell to another nerve cell, muscle cell, or gland. After delivering its message, a neurotransmitter either fades away (a process called diffusion), is reabsorbed by the nerve cell that released it (a process called reuptake) or is broken down by enzymes (a process called degradation) (7). There are over one hundred neurotransmitters. Serotonin, norepinephrine, dopamine, glutamate, and gamma-aminobutyric acid (GABA) are neurotransmitters implicated in mental health conditions. While there are several types of antidepressants, including selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), atypical antidepressants, tricyclic antidepressants (TCAs), and monoamine oxidase inhibitors (MAOIs), they all work by preventing the breakdown of neurotransmitters in the brain, thus allowing the neurotransmitter to continue passing further messages. Research on antidepressant use during pregnancy has generally focused on SSRIs (as opposed to other types of antidepressants). While there are rare risks (preterm birth, low birth weight, respiratory distress) associated with prenatal exposure to SSRIs, SSRIs are generally considered safe to take during pregnancy. The exception to this rule is paroxetine, which may increase the risk of heart defects in neonates exposed during the first trimester (22). Although they do pass into breast milk in small amounts, SSRIs are also safe during breastfeeding. When deciding whether to initiate or continue antidepressants

during pregnancy and/or postpartum, it is critical that physicians weigh the relatively benign risks of exposure to SSRIs with the even greater risks of exposure to a mother with untreated PMADs.

Mood stabilizers, including lithium, valproic acid, carbamazepine, and lamotrigine are used to treat bipolar disorder. Lithium is considered the gold standard treatment for bipolar disorder. It works by reducing excitatory (dopamine and glutamate) and increasing inhibitory (GABA) neurotransmission (20). Maintenance of lithium treatment during pregnancy helps prevent relapse during pregnancy and postpartum. Lithium is excreted renally, and therefore blood plasma levels depend on intravascular volume and glomerular filtration rate (GFR). As pregnancy progresses, total body water, plasma volume, and glomerular filtration rate (GFR) are increased, leading to a decrease in lithium blood levels. Therefore, lithium doses often have to be adjusted over the course of pregnancy and then again prior to delivery or immediately postpartum. Because lithium has a narrow therapeutic range of 0.5-1.2 mmol/L, it is critical that physicians monitor lithium levels closely during the perinatal period. Prenatal lithium exposure during the first trimester has been associated with cardiovascular malformations including Ebstein anomaly (26). This condition is rare. Nonetheless, physicians should weigh tapering lithium during the first trimester against the risks of relapse. Whereas the benefits of lithium and lamotrigine may outweigh the risks during pregnancy and postpartum, valproic acid and carbamazepine are known teratogens potentially causing neural tube defects and should be avoided in women of child-bearing age.

Antipsychotics are approved for the treatment of schizophrenia, bipolar disorder, and psychosis. The frequency of antipsychotic use during pregnancy has nearly doubled during the last decade. Discontinuation of antipsychotics during pregnancy increases the risk of bipolar and schizophrenia episode recurrence. Atypical antipsychotics (including clozapine, risperidone, lurasidone, lumateperone, olanzapine, quetiapine, ziprasidone, aripiprazole, and paliperidone) appear to be safer during the perinatal period than typical antipsychotics (10). Although data are still limited, most studies on atypical antipsychotics suggest these agents are safe during pregnancy and breastfeeding.

The first FDA-approved medication specifically for postpartum depression was brexanolone in 2019. Brexanolone is administered to inpatients via intravenous infusion over sixty hours. The benefits of brexanolone include its rapid onset of action, but challenges include its limited access, high cost ($34,000, which does not include cost of hospital stay), need to withhold breastfeeding during treatment, and requirement to monitor the infusion in the hospital setting (16). The first FDA-approved oral medication for the treatment of postpartum depression was zuranolone in 2023. It is taken once daily for fourteen days and does not require inpatient hospitalization. However, its cost is still prohibitive for many. Without insurance, zuranolone costs nearly $16,000 for the 14 day course of treatment. Zuranolone is present in breast milk in small concentrations, and the current recommendation is to "pump and dump" breast milk during treatment and then for one week after. Both brexanolone and zuranolone, acting as a synthetic neurosteroids, work by modulating GABA receptors; they provide an exciting glimpse into the future of treating psychiatric illnesses (16).

While pharmacotherapy can provide immense relief to mothers experiencing PMADs, psychotropic medications often take weeks to months to be fully effective. Patients who are suicidal, homicidal, manic, or psychotic may need to be hospitalized while medication is initiated/titrated. Unfortunately, many mothers are resistant to inpatient psychiatric hospitalization, since they are separated from their baby over the course of their hospital stay. Some hospitals have removed this barrier to care by opening mother-baby psychiatric units. However, these units are still rare in the United States.

CONCLUSION

In conclusion, the importance of recognizing and treating mental illness in the perinatal state cannot be overemphasized. The benefits of early and effective treatment to these patients can be widespread and lifesaving.

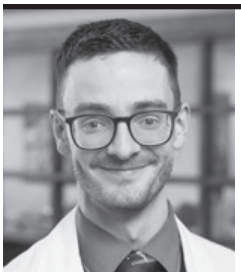
REFERENCES

1. 2020 Mom. Maternal suicide in the U.S.: Issue brief. Retrieved October 26, 2024, from https://www.2020mom.org/blog/2024/1/2/maternal-suicide-in-the-us-issue-brief.
2. Aragaw FM, Amare T, Teklu RE, Tegegne BA, Alem AZ. Magnitude of unintended pregnancy and its determinants among childbearing age women in low and middle-income countries: evidence from 61 low and middle income countries. Frontiers in Reproductive Health. 2023; 5: 1113926 https://doi.org/10.3389/frph.2023.1113926.
3. American Psychiatric Association. Psychotherapy. Retrieved October 26, 2024, from https://www.psychiatry.org/patients-families/psychotherapy.
4. Campbell J, Matoff-Stepp S, Velez ML, Cox HH, Laugho K. Pregnancy-associated deaths from homicide, suicide, and drug overdose: Review of research and the intersection with intimate partner violence. Journal of Women's Health. 2021; 30(2): 236-244. https://doi.org/10.1089/jwh.2020.8875.
5. Centers for Disease Control and Prevention. Facts about suicide. Retrieved October 26, 2024, from https://www.cdc.gov/suicide/facts/data.html.
6. Chandra PS, Satyanarayana VA, Pasha S. Postpartum psychosis: A clinical review. Indian Journal of Psychiatry. 2017;59(1): 60-66. https://doi.org/10.4103/0019-5545.155191.
7. Cleveland Clinic. Neurotransmitters. Retrieved October 26, 2024, from https://my.clevelandclinic.org/health/articles/22513-neurotransmitters.

8. Early Learning Nation. Parents are made, not born: Research shows the act of caregiving creates parenting brain. (2020, October 13). https://earlylearningnation.com/2020/10/parents-are-made-not-born-research-shows-the-act-of-caregiving-creates-parenting-brain/.
9. Family Institute The importance of the relationship with your therapist. Retrieved October 26, 2024, from https://www.family-institute.org/behavioral-health-resources/importance-relationship-therapist.
10. Gonzale D, Leach M. The frequency of antipsychotic use during pregnancy and its potential association with congenital malformations: A review of the literature. Archives of Women's Mental Health. 2016; 19(3): 383-392. https://doi.org/10.1007/s00737-016-0603-5.
11. Harris LM., Huang X, Linthicum KP., et al. Sleep disturbances as risk factors for suicidal thoughts and behaviours: A meta-analysis of longitudinal studies. Scientific Reports. 2020;10: 13888. https://doi.org/10.1038/s41598-020-70866-6.
12. Hoekzema E., et al. Pregnancy leads to widespread changes in brain structure. Nature Neuroscience. 2017; 20(2): 138-148. https://doi.org/10.1038/nn.4483.
13. Holmes TH, Rahe RH. The social readjustment rating scale. Journal of Psychosomatic Research. 1967; 11(2): 213-218. https://doi.org/10.1016/0022-3999(67)90010-4.
14. Kleiman, K. Good moms have scary thoughts: a healing guide to the secret fears of new mothers. Familius; 2019.
15. Klima C Unintended pregnancy: Consequences and solutions for a worldwide problem, Journal of Nurse-Midwifery. 1998; 43(6): 483-491, https://doi.org/10.1016/S0091-2182(98)00063-9.
16. Larkin M. Brexanolone and zuranolone for the treatment of postpartum depression. Pharmacy Times. 2023; Retrieved October 26, 2024, from https://www.pharmacytimes.com/view/brexanolone-and-zuranolone-for-the-treatment-of-postpartum-depression.
17. Leistikow N, Baller EB, Bradshaw PJ, Riddle JN, Ross DA, Osborne LM. Prescribing sleep: an overlooked treatment for postpartum depression. Biol Psychiatry. 2022;92(3):e13-e15. doi:10.1016/j.biopsych.2022.03.006.
18. Lindahl V, Pearson JL, Colpe L. Prevalence of suicidality during pregnancy and the postpartum. Archives of Women's Mental Health. 2005;8(2): 77–87. https://doi.org/10.1007/s00737-005-0080-1.
19. Luca DL, Margiotta C, Staatz C Garlow E, Christensen A, Zivin K. Financial toll of untreated perinatal mood and anxiety disorders among 2017 births in the United States. American Journal of Public Health. 2020; 110(6): 888-896. https://doi.org/10.2105/AJPH.2020.305619.
20. Malhi GS, Tanious M, Das P, Coulston CM, Berk M. Potential mechanisms of action of lithium in bipolar disorder. CNS Drug. 2013; 27(2): 135-153. https://doi.org/10.1007/s40263-013-0039-0.
21. Maternal depression and child development. Paediatr Child Health. 2004;9(8):575-598. doi:10.1093/pch/9.8.575.
22. Mayo Clinic. Antidepressants during pregnancy: What you need to know. Retrieved October 26, 2024, from https://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/antidepressants/art-20046420.
23. Misri S, Abizadeh J, Sanders S, Swift E. Perinatal generalized anxiety disorder: assessment and treatment. Journal of Women's Health. 2002; 24(9): 762–770. https://doi.org/10.1089/jwh.2014.5150.
24. Natsuaki MN, Shaw DS, Neiderhiser JM, et al. Raised by depressed parents: is it an environmental risk? Clin Child Fam Psychol Rev. 2014;17(4):357-367. doi:10.1007/s10567-014-0169-z.
25. Noetel M, Sanders T, Gallardo-G, Ãmez D, Taylor P, et al. Effect of exercise for depression: systematic review and network meta-analysis of randomised controlled trials. BMJ. 2024; 384: e075847 doi:10.1136/bmj-2023-075847.
26. Organization of Teratology Information Specialists (OTIS). Lithium. 2023. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK582797/.
27. Postpartum Support International. Resources for partners. Retrieved October 26, 2024, from https://postpartum.org/services/for-partners/.
28. Turrentine M, Nguyen BH, Choby B., Kendig S, King, TL, et al. Frequency of prenatal care visits: Protocol to develop a core outcome set for prenatal care schedules. JMIR: Research Protocols. 2023; 12: e43962. https://doi.org/10.2196/43962.
29. World Health Organization. Maternal mental health. 2024. https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/maternal-mental-health.

Dr. Ruth Grant is a native of Amarillo. She went to Texas Tech for medical school and the University of Missouri - Columbia for psychiatry residency and child and adolescent psychiatry fellowship. She is a partner at Amarillo Medical Specialists and sees women and children. For fun, she enjoys reading and spending time with family and friends.

Kate Jurek is a fourth-year medical student at TTUHSC with distinctions in Medical Humanities and Global Health; she plans to attend a psychiatry residency following graduation. Her background as a classical violinist informs her approach in resolving questions of mental and physical health. Kate's research spans gastrointestinal somatic symptom disorders, pancreatic cancer, addiction medicine, maternal nutrition, and perinatal psychiatry; her work has appeared in esteemed journals such as Addiction, American College of Physicians, American College of Gastroenterology, Neurogastroenterology & Motility, and Infant Risk. In addition to her passion for psychiatry, Kate enjoys rock climbing, music making, and crocheting!



Monsters under the bed: Understanding Pediatric Mental Health Issues

by Anders Leverton, MD

Every child has a monster under their bed. As children grow, some of those monsters remain and some are forgotten. I remember when I was a child, I was quite positive that there was a ghost snake that would roam the halls between my bedroom and my parents'. And not only was it a snake but it was a ghost snake! Meaning it could go through walls. I believed that closing my eyes tight or grabbing my lightsaber was all the protection I needed. This was also my defense if Chucky or any other living doll would be lurking. I never brought this up to my parents because I knew somehow that I would not be believed. Also, in my defense, my parents never asked me if I was concerned about any paranormal entities creeping in the house. Over time and with the help of puberty, these monsters did not bother me anymore. No, I became worried about other invisible monsters such as rejection, failure, and talking to the opposite sex.

Similarly, mental health issues in pediatrics are very much like a monsters under a child's bed. Children do not always bring them up, and parents or physicians do not often ask about them. In fact, for some, opening that door on mental health might cause the provider stress. It is often said that "ignorance is bliss." Unfortunately, ignorance of mental health issues is not blissful for our pediatric patients. In fact, it is a disservice. Multiple possibilities exist for why mental health goes unrecognized in pediatric patient, ranging from distinct and less recognized presentations from adult populations, to mislabeling as normal development, to provider stigma (1). This wide variety of confounders can prevent successful diagnosis and treatment of these disorders.

Data collected by the Centers for Disease Control and Prevention have shown that the most common mental health disorders in childhood are attention deficit hyperactivity disorder (ADHD), anxiety, and behavioral disorders such as depression. Ideally, after reading this article, the reader will have an increased understanding of these illnesses and can identify tools to assist them in battling these monsters and finding victory in relief for their patients. Now on to battle.

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

Contrary to public perception, cases of ADHD have been described since 1775 (2); however, the concept and definition have changed multiple times. In 1901 Dr. George Frederick Still described ADHD as "an abnormal defective moral control in children." By 1980 the DSM-III described ADHD as attention deficit disorder with or without hyperactivity. Today, ADHD has 2 flavors, but if you are lucky you can get them in combination as a third subtype! They are inattentive type, hyperactive type, or combined type. Myths often arise about misunderstood concepts, and ADHD is no different. One myth is that it is overdiagnosed. In reality, it is actually underdiagnosed, possibly due to provider bias (3). There are social biases and racial biases, but the bias I fear most is a misinformation bias. Within the last decade in Amarillo, you may have seen billboards linking ADHD medications to school shootings. These scare tactics rooted in misinformation can prevent parents from seeking treatment for their children. Believe it or not, that is a bunch of nonsense. Stimulant medications have an unfairly earned poor reputation due to stunts like those billboards. Stimulant medications are evidence-based and represent the first-line treatment for ADHD; they are often underappreciated for the degree of benefit they can confer.

Compared with children who have untreated ADHD, those treated have increased self-esteem, a prolonged life expectancy, improved school performance, and longer-lasting relationships. From my own personal experience, not recognizing that I had ADHD until I was older led to my teachers constantly reprimanding me and, consequently, my inability to complete assignments or understand concepts. The end result was that I believed that I was truly unteachable and that becoming a physician was out of my reach. That is just one example of how impaired self-esteem can be an unintended consequence of untreated ADHD. Poor self-esteem can also lead to depression, which has significant effects on cardiovascular as well as mental health.

Another prevailing myth is that ADHD can be caused by bad parenting. Through the use of PET scans, however, we see that individuals with ADHD actually have decreased activity in the frontal lobes where executive functions like decision-making, exercising good judgment and problem-solving are concentrated. Thus, treatments for ADHD stimulate the frontal lobes to make them more active; this is accomplished with the use of stimulants.

While I said that an environmental factor like poor parenting is not the "cause" of ADHD, it can be associated with ADHD. There are genetic and neurological factors that underlie this disorder, but there is also an increased risk with intrauterine exposure to alcohol, tobacco, or opioids, with birth complications, and even with adverse childhood events (ACEs). ACEs are events that result in a change in how your brain functions. These can be traumatic experiences, abuse, or even having CPS come to investigate your family. Poor parenting in and of itself will not give you ADHD, but it most certainly can contribute to predisposing risk factors. This is not to say that a person with ADHD necessarily had poor parenting or experienced any ACEs, just that environmental factors and early life stressors should be considered when evaluating patients.

As a final note on ADHD, I want to remind all practitioners that this is a lifelong diagnosis. It cannot be cured and does not go away just because a patient ages. As one becomes older, though, managing it can become easier. It is also worth noting that adults may manifest symptoms in different ways from children, as adults are more attuned to societal expectations and norms. Contrary to the earliest thoughts on ADHD, this is not a disorder of immorality, but a neurodevelopmental disorder with biological, psychological, genetic and environmental etiologies. Medication may not always be needed as patients learn other ways to help them focus and develop behavioral patterns and skills that mitigate symptom impact.

ANXIETY

Anxiety sucks! Every person in the world has experienced anxiety. You may have been anxious before you approached a romantic interest for the first time, the night before a major exam, or when your boss asks for a volunteer to complete a long task while looking

straight at you. Anxiety is something everyone experiences, and, in fact, some anxiety can serve an adaptive purpose. However, when anxiety is overwhelming and impairing function, it is pathological, and we call it an anxiety disorder. One in 12 children and one in four adolescents experience an anxiety disorder (4). Anxiety first develops around age 6 months when infants display stranger anxiety. In preschoolers, anxiety usually manifests around fears related to the dark, certain animals or imaginary situations. School-aged children often have anxiety regarding bodily harm. The trend continues into adolescence with anxiogenic triggers shifting yet again, becoming more generalized to school and social competence; adolescent anxiety usually remits as teenagers mature. However, at any point in childhood or adolescence, an anxiety pathology may manifest if this normal development is obscured, or if the anxiety itself is causing enough distress to interrupt functioning.

In pediatrics, anxiety can come in many different shapes--from separation anxiety disorder, to specific phobias, to generalized anxiety disorder. Rarely, if at all, when patients come to see their PCP will the reason for the visit say anxiety. Anxiety can be insidious in onset and develop slowly over time; it takes a high index of suspicion and great history taking skills to tease out the various symptoms. A common theme in pediatrics is that the patient's difficulty or inability to communicate contributes to challenges in accurate diagnosis. Contributing to the difficulty in discovering these disorders is that the stress of the individual may not be externally evident; it can be experienced as more internally than what is outwardly observable.

Anxiety symptoms include school refusal, perfectionistic tendencies, fatigue, muscle tension, nightmares, or avoidance of people, places or things known to cause anxiety. Clearly, this is much more difficult to see than a foreign body in an ear canal causing pain. There are multiple validated questionnaires to help screen for anxiety disorders, but these can be limited by parent and patient perspective on the level of distress. The best way to diagnose an anxiety disorder is with time and patience. Nothing can take place of a thorough history.

When defining what anxiety is, however, it is also important to remember what it is not. Anxiety symptoms can also mimic other disorders such as thyroid disorders. To complicate this further, issues of physical health can lead to symptoms of anxiety. Mental health is health, and the mind-body connection is strong. It is important to not think of mental health issues being different from health issues in general, as they go hand in hand. Being thorough in your evaluation, considering the contribution of comorbid diagnoses or ruling out physical disorders as causes is paramount. Do not fall into the trap of thinking psychiatry is divorced from the rest of medicine.

While ADHD is a lack of stimulation to the brain, anxiety is actually the opposite. It is suspected that hypermetabolism in the frontal pre-cortical area is a plausible pathophysiologic mechanism. These theories underlie best practices in treatment. Treatment for anxiety is best accomplished with concurrent psychotherapy and pharmacotherapy. Cognitive behavioral therapy (CBT) is the preferred initial therapeutic modality, because anxiety can be accelerated by our own thoughts, beliefs and behaviors. Reshaping those thoughts, beliefs and behaviors will therefore decrease that hypermetabolism. Selective serotonin reuptake inhibitors or SSRIs are the first-line options for pharmacotherapy in anxiety disorders in both children and adults.

Anxiety can steal your youth. That is to say, long-term complications of anxiety can prevent our patients from enjoying the fruits of youthfulness. Anxiety can lead to children avoiding school and missing out on important times for education and social development. In teenagers, anxiety may prevent them from enjoying basic life experiences. This can vary from going on dates, indulging in hobbies, or (when severe) reaching their further dreams. Yes, everyone has anxiety, but when it is causing distress or impairing functioning, its effect on the individual must be evaluated more closely, and anxiety disorder must be considered.

DEPRESSION

Depression can aptly be described by the title of a Run-D.M.C. song "It's Tricky." Simply because it is! Depression is under-recognized and undertreated in the pediatric population. As with the other disorders discussed above, part of the reason is that the presentation can be difficult to discern and can easily be confounded with normal pubertal changes. Highlighting this difficulty is the range of symptoms children can experience. Presenting signs and symptoms can range from psychosomatic complaints, to social isolation, and even to psychotic symptoms in cases of severe disease.

This heterogeneous presentation can leave providers confused as to where even to begin diagnostically. A simple approach can be to use a validated screening tool, remembering that the majority of tools are designed for screening in adolescents. If a diagnosis of depression is missed, the consequences can be lethal, but missing depression can have lasting effects other than suicide. It has been shown that depression leads to poor health outcomes in adulthood such as early onset cardiovascular disease (5). As primary care providers, we have a duty to prevent disease. Depression can affect much more than mental health, and overlooking a diagnosis of depression in childhood might cause our patients (and internal medicine and family medicine colleagues) more problems down the line.

As with anxiety, depression has significant immediate effects as well. The depressed patient experiences clinical distress and impaired functioning, but the degree of suffering that is experienced may not be outwardly observable to clinicians, even though unbearable to our patients. Imagine having to carry a large weight up a hill that is just barely within your capabilities, and instead of people offering to help you they simply see a person who should be able to do it and walk away. How long will it take for you to break under that weight?

Just as depression is underdiagnosed, it is often untreated or undertreated. As those practicing in Amarillo are keenly aware, there are limited number of psychiatrists to care for a massive number of patients; this creates barriers to care and leaves the bulk of psychiatric care to be provided by primary care practitioners. As primary care physicians, we are the first line of defense in treating psychiatric illness in our communities. There can also be a subconscious bias or shame that people have when considering seeking therapy with a psychiatrist or psychologist. This is, of course, compounded by societal stigma.

Blackbox warnings are placed on medications to help reduce poor outcomes. Medications classified as SSRIs and SNRIs have a black box warning for increased risk of suicidal thinking and behaviors in children, adolescents and young adults. When this warning first was added for SSRIs and SNRIs, many patients stopped taking their prescribed medications, even when they had been helping with no deleterious effects experienced. Subsequently, patients who went untreated were found to have an increased risk of suicidal thinking and behavior beyond the risk associated with taking one of these medications. We should use informed consent and shared decisions making when developing treatment plans for our patients, with each plan tailored to the needs of the individual. And we must consider that untreated depression is a greater risk factor for suicide than the medication itself in most patients. These medications remain the first line pharmacological intervention for children and adolescents experiencing depressive disorders.

Adolescence is a crucial time for social, emotional, and cognitive development, and it can be compromised by depression. In a world that is seeing an increase in bullying and worsening trends of mental health disorders in children, PCPs need to be increasing their ability to detect these disorders and to initiate and manage treatment. Our pediatric patients struggling with their mental health need us now more than ever.

I no longer think about the ghost snake, or dolls coming to life and trying to get me. Now, my nights are occasionally filled with my own children coming to tell me the big bad wolf is in their closet, or that they think someone is outside the window. Thank God I have not found any wolves in any closet yet. While these cries for help are often tedious and possibly crafty ploys to stay up longer, it is a constant reminder to think about the unseen--to evaluate something that remains unseen but is experienced internally. In the end, mental health is something that we can't afford to take for granted in our pediatric patients. These disorders, with practice and diligence, can be diagnosed and treated, and we are the first line of defense.

REFERENCES:

1. Knaak S, Mantler E, Szeto A. Mental illness-related stigma in healthcare: barriers to access and care and evidence-based solutions. Healthc Manage Forum. 2017;30(2):111-116. doi:10.1177/0840470416679413
2. Barkley, Russell A. History of ADHD. In Barkley RA (Ed.), Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment, 4th ed. New York, NY: Guilford Press; 2018:356-390.
3. Rajaprakash M, Leppert ML. Attention-Deficit/Hyperactivity Disorder. Pediatr Rev. March 2022; 43 (3): 135–147. https://doi.org/10.1542/pir.2020-000612
4. Kowalchuk A, Gonzalez SJ, Zoorob RJ. Anxiety disorders in children and adolescents. Am Fam Physician. 2022 Dec;106(6):657-664. PMID: 36521463.
5. Goldstein BI, Carnethon MR, Matthews KA, et al. Major Depressive Disorder and Bipolar Disorder predispose youth to accelerated atherosclerosis and early cardiovascular disease: a scientific statement from the American Heart Association. Circulation. 2015; 132:965.

Anders Leverton is an assistant professor and general pediatrician at Texas Tech, where he serves many roles including associate program director for the pediatric residency. Outside of work he is an avid Star Wars fanatic, father, and guitarist.

Mental Health in Primary Care

by Kelsey Sprinkles, MPH and Nicole Lopez, MD

MENTAL HEALTH IMPACT

Primary care providers (PCP) are the gateway to a patient's healthcare. They meet many a patient's medical needs and often bear the responsibility of caring for a wide variety of conditions. This certainly includes mental health disorders. Primary care plays a large role in lessening the burden of mental health disorders in this country. Importantly, mental health disorders commonly contribute to a patient's presentation, as these conditions affect more than one in five U.S. adults (1). The most common chief complaints that are likely to be seen include symptoms of fatigue, weight gain, lack of concentration, and irritability. Often these vague symptoms are signs of anxiety or depressive disorders, especially in patients with chronic health conditions. With that background, it's no surprise that many patients see their PCP with a mental health concern as their chief complaint, and this number is increasing. A national study published in Health Affairs found that, from a sample of 109,898 visits, the proportion of visits that addressed mental health concerns increased from 10.7 percent of visits in 2006/2007 to 15.9 percent by 2016 and 2018 (2).

Primary care physicians and providers are well-equipped and prepared to address these patients by remaining vigilant to how mental health conditions affect one's entire being. PCPs are also in a unique position being able to treat a wide variety of patient populations, including many that are considered vulnerable. These would include populations such children, pregnant women, and the elderly. For most patients, primary care is the easiest way for a patient to access mental health care. Texas Tech has trained many internal medicine and family medicine physicians to provide comprehensive care to patients of all ages in the Panhandle. Some of these physicians now have well-established practices in rural communities such as Perryton, Childress and Dimmitt. They are able to see patients the same day and to arrange follow-up within a couple of weeks; because they have an established relationship with that patient, they already know his or her story. Additionally, a PCP may be the provider that a patient sees most frequently, or indeed the only provider that a patient sees. That leaves these providers in a position where addressing mental health disorders and beginning treatment is critical.

THE ROLE OF A PCP

Primary care physicians fill many gaps in psychiatric patient care due to the populations and volume they serve. While most people understood how mental health disorders impact a primary care office, it is important to keep in mind what gaps in care these providers are able to address. Firstly, there is generally a shortage of, or in some regions complete lack of, psychiatry providers. In the Panhandle region specifically, there is a lack of access to most specialists, and psychiatry providers are no exception. Our patients are often limited by factors including cost, travel distances, and even complete lack of available mental health providers. Often the wait for a child to see a child and adolescent psychiatrist is up to 12 months or longer. Adult patients may be put on waiting lists for months, even when referred by the PCP. In addition, insurance issues can create a barrier to accessing psychiatric specialist care. Specifically, those with government-issued insurance, such as Medicaid, often have easier access to primary care when compared to specialty providers. Since many specialists in Amarillo do not accept Medicaid, many residents must travel to Lubbock, Dallas or further to access care. For some, these may not be realistic options; this is another important barrier that PCPs are able to overcome.

Apart from access issues, the patient rapport that has been established with a PCP is a huge benefit in mental health treatment that should not be understated. Patients often have an established trust with their PCP that has taken take months or years to build. This rapport can improve treatment acceptance and adherence. This relationship also allows for conditions to be observed and addressed early on in disease progression. This allows close follow-up for monitoring of symptoms, especially when new psychotropic medications are started. Lastly, primary care has the potential to contribute to reducing stigma surrounding mental health on the individual patient level. By not being labeled as a psychiatry or mental health provider, primary care providers may be viewed through a different lens by patients. This could allow a more open conversation between a provider and patients regarding mental health. These gaps are all barriers to care that can be appropriately addressed by primary care.

CHALLENGES FACED

With the gaps that PCPs address in mind, it's important to acknowledge the challenges that can arise when it comes to treating these patients and their associated mental health conditions. When treating mental health disorders, a major limitation in primary care is

time. More than most settings, a PCPs office has very limited appointment length time. This can make treating mental health conditions challenging and may mean that it takes several visits before the practitioner can make appropriate diagnosis and treatment recommendation. This lack of time can interfere with a provider's comfort level in treating more complex mental health conditions. Also, a PCP, not being a mental health specialist, may feel a lack of confidence in treating patients with acute psychiatric concerns, like psychosis or catatonia. When treating these complex patients, it can also be frustrating not to have accessible resources for referral of patients who need a higher level of care. This is an especially prevalent concern in the Panhandle. Furthermore, as mentioned previously, a PCP's office is responsible for treating people from all walks of life, including vulnerable populations like children, pregnant people, and the elderly. This adds another challenge in tackling mental health disorders because of more complicated medication management and the increased importance of follow-up. Finally, the vulnerable populations in a PCP's office may also include immigrants, where language and cultural barriers can make communication about psychiatric issues even more difficult. These are all obstacles facing the PCP who treats mental health conditions, especially in the Panhandle.

HELPFUL RESOURCES

While not all these problems have easy solutions, there are important considerations and resources that can make addressing these concerns more feasible (Most of the following resources are specific to Texas or the Panhandle). The Waco Guide is a useful tool that aims to address some of the unmet clinical needs that PCPs face in treating mental health. This guide uses algorithms to aid in diagnosis and treatment. It can be a helpful starting point for many common mental health presentations. Another easily accessible resource for the Panhandle is the Child Psychiatry Access Network (CPAN) and Perinatal Psychiatry Access Network (PeriPAN). These services provide quick "curbside" consults that allow a PCP to ask questions regarding these two vulnerable populations and their management. Usually, a psychiatrist will be available within 30 minutes for quick advice, and sometimes they will be able to schedule a direct consult. Lastly, the Panhandle Mental Health Guide is a resource specific to the Panhandle area that compiles all the available services offered in the region. It is a helpful reference in providing guidance to patients in need of a specific service. All these resources help to lessen the difficulty that local PCPs face when treating mental health issues in the Panhandle.

A NOTE FROM A FAMILY MEDICINE PHYSICIAN

It is often helpful to see things as our patients see them, especially those with anxiety and depressive disorders. One patient described how she was terrified to see a provider about her mental health. Places like urgent care centers and the ER would often view her as a chore and would rush through the appointment because there was not anything "physical" that they could treat. She stated that she was fortunate to find a primary care physician who cared enough to take 10-15 minutes to listen to her story and was on her side about addressing her anxiety and depression. This relationship gave her the ability to open up and be honest about what was happening. This allowed her to get on the right treatment plan with medication and a counselor. She continues to come back to Amarillo to see this provider because of the trust she has in him.

As primary care providers, it is important that we do our own research and continue to stay up to date with the latest in continuing education in the field of mental health and to remind ourselves that we are a part of a team of people that includes social workers, LPCs, nurses, psychologists and psychiatrists. Working together can help the patient see that they are not alone and that there are people they can count on.

REFERENCES

1. U.S. Department of Health and Human Services. Mental illness. National Institute of Mental Health. (n.d.) https://www.nimh.nih.gov/health/statistics/mental-illness
2. Rotenstein LS, Edwards ST, Landon BE. Adult primary care physician visits increasingly address mental health concerns. Health Affairs. 2023;42(2):163–171. https://doi.org/10.1377/hlthaff.2022.00705

Kelsey Sprinkles is a 4th year medical student at the Texas Tech School of Medicine. She is originally from the tiny rural town of Little River-Academy, Texas. She obtained an undergraduate degree and Masters of Public Health from Texas Tech University, so she's called West Texas home for a while now. She plans a residency in the field of psychiatry and is ultimately interested in child and adolescent psychiatry. Outside of medicine, she enjoys doing yoga, hunting for antiques, and going to estate sales.

Nicole Lopez, MD is currently an Associate Professor and Clinical Medical Director in Family Medicine at Texas Tech University HSC in Amarillo. She currently serves as President of the Potter-Randall County Medical Society, on the Texas Panhandle ACO Board of Directors, on the TAFP's Council on Medical Practice, and on numerous committees in Amarillo, including chair of the Well-Being Committee on the Amarillo campus. She is a life-long resident of the Panhandle and has 3 children.

Constructing the Future of Mental Health: Developing a Panhandle State Hospital

by Amanda Mathias, PhD and the Meadows Mental Health Policy Institute

THE TEXAS LEGISLATURE PRIORITIZES MENTAL HEALTH

In 2016, the Texas Legislature recognized the need for improvements to the state mental hospital system's deteriorating conditions, outdated building designs, and insufficient information technology systems. In response, the 85th Texas Legislature appropriated an initial $300 million and directed the Texas Health and Human Services Commission (HHSC) to develop a comprehensive inpatient mental health plan for the state. Where feasible, public and private entities would partner with HHSC in development of a master plan for each region. The 86th and 87th Texas Legislatures invested in accordance with the finalized plan, bringing the total commitment to nearly $1.4 billion by the end of 2021. As these projects began to modernize the state hospital system in parallel with an overwhelming forensic waitlist, a focus on regionalization of state hospitals developed. Leading up to the 88th Legislative Session, policymakers shared a strong resolve to do more for mental health in Texas, and state leadership made it a session priority. In the wake of the Uvalde school shooting and the ongoing, long-term impact of COVID-19, a clear and growing need to expand effective programs, address workforce shortages, and build additional capacity for care became evident. Depression and anxiety rates were soaring, and hundreds of state hospital beds were offline due to staffing issues.

By the end of the 2023 session, the 88th Texas Legislature had appropriated a record $11.68 billion for behavioral health, an increase of more than 30% from the previous session. House Bill 1 (Bonnen), the 2024-25 General Appropriations Act, included nearly $9.37 billion for behavioral health funding across 28 state agencies. Senate Bill 30 (Huffman), the supplemental budget, provided an additional $2.31 billion to expand mental health capacity, including $2.26 billion for state hospitals and inpatient psychiatric capacity. Senator Joan Huffman, Chair of the Senate Finance Committee, called it the single largest increase in behavioral health funding by any state legislature in U.S. history.

SHE RAISED HER HAND – HOW THE TEXAS PANHANDLE JOINED THE STATE HOSPITAL SYSTEM

In February 2022, Lieutenant Governor Dan Patrick accompanied Kevin Sparks, then a Texas Senate candidate, on the campaign trail to visit the people of the Texas Panhandle. During their visit, they held a special session with a select group of area judges and sheriffs. In attendance that day was the ever-forthright, always Panhandle-devoted Potter County Judge Nancy Tanner.

For a decade, Judge Tanner has spent three days a week reviewing and hearing cases for commitments to mental health treatment and has seen too many of them recidivate repeatedly through the judicial system. Knowing that the community has inpatient capacity and outpatient treatment options, Judge Tanner realized the individuals who pass through her court needed specialized, extended stabilization periods. And so, when Lt. Governor Patrick asked about the community's needs, she raised her hand and, in her southern twang, told him exactly what they needed — beginning the discussion for a new hospital for the Texas Panhandle.

IN GOD WE TRUST, ALL OTHERS BRING DATA – COORDINATING THEIR CASE

After news circulated that Lt. Governor Patrick had promised the Potter County judge a new state hospital, the local provider community, led and organized by Texas Panhandle Centers executive leadership, quickly developed the Texas Panhandle Behavioral Health Taskforce (TPBHT). The taskforce is composed of representatives from multiple local health systems as well criminal justice leadership, Judge Tanner, and regional health-related institutions. In partnership with the Meadows Mental Health Policy Institute (Meadows Institute), TPBHT executed a coordinated, data-informed proposal to present to the Texas Legislature. Senator Sparks, Representative Four Price, and Representative John Smithee then worked diligently at the Texas Capitol to ensure the proposal was included in all funding discussions.

MENTAL HEALTH NEEDS

The Texas Panhandle, a region characterized by its unique geography, culture, and economy, faces significant public health challenges, particularly in the realms of mental health and substance use. The quantitative data analysis completed by the Meadows Institute to inform the legislative proposal estimates that 75,000 of the 320,000 adults in the region have a mental health need. Most (81%) adults with mental health needs had mild or moderate conditions that providers can often treat in an integrated primary care setting. However, approximately 17,000 adults were estimated to have a serious mental illness (SMI) in 2022 and may require intensive mental health services. Among the adults with SMI, nearly 50% were living in poverty.

The Meadows Institute estimates that major depression was the most common diagnosis among adults (11% of adults), followed by specific phobias (6%), generalized anxiety disorder (5%), and post-traumatic stress disorder (5%). In 2022, an estimated 5,000 adults suffered from bipolar I disorder, 1,600 had schizophrenia, and 30 adults ages 18-34 were estimated to have a new, first episode of psychosis.

ACCESS TO INPATIENT TREATMENT

Most providers and the community assume that regional hospitals have limited psychiatric inpatient bed capacity. However, the Meadows Institute identified that, between 2020 and 2022, Panhandle adults accounted for 8,572 psychiatric bed admissions, with 94% occurring at regional hospitals (Northwest Texas Hospital, Oceans Behavioral Hospital of Amarillo, and Pampa Regional Medical Center). Notably, the number of admissions to Panhandle region psychiatric beds increased by about 9% annually.

A comparatively small (and declining) number of Panhandle residents were admitted to non-Panhandle psychiatric beds for care, averaging 174 admissions per year. Overall, these data indicate that Panhandle residents have sufficient psychiatric beds available to serve their needs.

ACCESS TO STATE HOSPITAL TREATMENT

While data indicate that the Panhandle has sufficient inpatient psychiatric treatment capacity, a shortage remains in the regional availability of the intensive, specialized level of care and extended periods of treatment--most specifically, for forensic patients--that a state hospital supports.

The Panhandle lacks necessary crisis alternatives and civil and forensic inpatient capacity, particularly for the indigent and uninsured. As a result, residents and law enforcement must travel a minimum of three hours to access safe and secure inpatient bed options. Not only is the travel extensive, but the wait time for admissions is also lengthy.

Twelve-Month Mental Health Prevalence Among Panhandle Adults, [1, 2]

	Entire Panhandle
Total Adult Population	**320,000**
Population in Poverty	100,000
All Mental Health Needs (Mild, Moderate, & Severe)	**75,000**
Mild Conditions	32,000
Moderate Conditions	29,000
Serious Mental Illness (SMI)	17,000
SMI in Poverty	8,000
Specific Diagnoses	
Major Depression	35,000
Bipolar I Disorder	5,000
Anxiety Disorders	
Generalized Anxiety Disorder	17,000
Panic Disorder	10,000
Social Phobia	9,500
Specific Phobia	18,000
Post-Traumatic Stress Disorder	15,000

1. Population data from U.S. Census Bureau's American Community Survey 2018-2022, 5-year data release. 2023 December. Available from: https://www.census.gov/data/developers/data-sets/acs-5year.2022.html
2. All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.
3. "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS): https://www.census.gov/programs-surveys/acs/data/pums.html
4. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005 Jun;62(6):617-27. PubMed PMID: 15939839.
5. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005 Jun;62(6):617-27. PubMed PMID: 15939839.
6. Texas county-level mental health prevalence estimates, 2022. Dallas, TX: Meadows Mental Health Policy Institute.
7. Poverty data from U.S. Census Bureau's American Community Survey 2018-2022, 5-year data release. 2023 December. Available from: https://www.census.gov/data/developers/data-sets/acs-5year.2022.html
8. Unless otherwise cited, prevalence rates were generated by Texas county-level mental health prevalence estimates, 2022. Dallas, TX: Meadows Mental Health Policy Institute.

Number of State Hospital Admissions from the Texas Panhandle Center by Year and Commitment Type, All Ages (FY 2019–FY 2023)

Fiscal Year	Overall	Commitment Type	
		Civil / Voluntary	Forensic
2019	60	21	39
2020	61	17	44
2021	44	25	19
2022	39	21	18
2023	<70	<41	<29
Total	**<274**	**<125**	**<149**

9. As of 2024 Texas Health and Human Services Commission is labeling values between 1 and 2 as "<3" to ensure patient confidentiality.
10. Reyes V. Texas A&M University Board of Regents approve land deal to bring mental health hospital to Amarillo. Myhighplains.com. 2024 May. Available from: https://www.myhighplains.com/news/local-news/texas-am-university-board-of-regents-approve-land-deal-to-bring-mental-health-hospital-to-amarillo/

Nearly a quarter (22%) of the adults admitted to hospitals outside the Panhandle region were admitted to state hospitals. The number of admissions to state hospitals among Panhandle residents declined by 44% between 2020 and 2022. Texas Panhandle Centers admitted fewer than 274 adults to state hospitals between FY 2019 and FY 2023 — roughly 55 admissions per year. Admissions slightly declined between FY 2020 and FY 2021 before rebounding to their highest level in 2023 (<70). More than half (about 54%) of these admissions were forensic.

A REQUEST GRANTED AND A COMMUNITY RESPONDS

This community effort culminated in the 88th Texas Legislature approving $159 million to construct a 75-bed non-maximum-security Panhandle State Hospital. The new state hospital will support the behavioral health needs of people with serious mental illness, substance use disorders, or co-occurring conditions for both civil and forensic adult patients. Regionally located, the state hospital will allow people to remain connected to their families and communities in the Panhandle as they receive treatment and seek recovery.

With funding secured, local leaders and our legislators continued their extensive work by turning to the next task at hand — finding land. The Legislature approved the budget for the design and construction of the hospital's actual structure but charged HHSC with partnering with the Panhandle community to identify the appropriate location and the land on which to build.

After contributions by the City of Amarillo, our local representatives and elected officials, West Texas A&M, and many others, Texas A&M University announced that its Board of Regents unanimously voted to approve a land deal in Amarillo for a 10-acre tract of land to help build the only state hospital for inpatient mental health care in the Panhandle. The Texas A&M System will lease this site to HHSC for $1 per year. Construction is expected to break ground in late 2024, with the hospital beginning admissions in fall 2027.

For anyone familiar with the culture of the Texas Panhandle, it would come as no surprise that the pioneer spirit of its people in identifying resources and working together as a community to leverage and evolve their use for the betterment and growth of their home drove this creative solution — the beginning of a better system of care for families, friends, and neighbors.

Amanda Mathias, PhD, Executive Director of the Meadows Institute-Panhandle, brings 25 years of experience in both community social services and community mental health. Her clinical career centered around serving the indigent, homeless, and underserved populations living with co-occurring, complex medical and behavioral health disorders. For most of the last decade, Dr. Mathias has applied her clinical expertise to transforming local systems through clinical implementation strategy aimed at improving and integrating state-of-the-art programming throughout the community mental health systems of Texas and nationally. She works closely with national leaders seeking to improve quality and access to care through innovative and sustainable practices.

The Science of Happiness: An Exploration of the Growth Mindset and Optimism

by Ardalan Naghian, MS4, TTUSOM

DEFINING HAPPINESS

Time and time again, we hear the statement, "Just be happy." But what does happiness really mean? Can it truly be measured? And is it purely a mental state, or does it have a physical side as well? These are important questions that touch upon not just psychology but also physiology, philosophy, and our daily human experience. Happiness is not just an abstract mental state; it has tangible physical effects on the body. Extensive research demonstrates that positive emotions are closely associated with physiological processes that promote well-being and longevity. Happiness works alongside various systems in the body that help improve overall health, reduce the risk of chronic disease, and promote longevity.

CAN HAPPINESS BE MEASURED?

While happiness may seem like an abstract concept, it can indeed be measured, though not in absolute terms. Researchers often measure happiness through self-reported surveys, such as the Subjective Well-Being Scale (SWB), which asks individuals to assess their satisfaction with life (7). These surveys assess life satisfaction of participants through various socioeconomic variables. They help us measure both short-term and long-term happiness and understand the numerous factors which influence a person's happiness. Additionally, positive emotions and happiness correlate to biological indicators, including the release of neurotransmitters such as dopamine and serotonin, which create feelings of pleasure and contentment (6).

Physical changes in the body also indicate a person's level of happiness. Lower levels of the stress hormone cortisol, improved heart health, and a strengthened immune system are just some of the physiological markers that suggest happiness is not just a mental state but has tangible effects on physical health (10).

THE PHYSIOLOGY AND PATHOPHYSIOLOGY OF HAPPINESS

From a biological perspective, happiness results from a complex interaction between various brain systems, neurotransmitters, and hormones that create positive emotional states. Key players in this process include dopamine, serotonin, oxytocin, and endorphins, which we often refer to as "feel good" hormones (6).

Dopamine is responsible for feelings of pleasure and reward and is released when we engage in activities that bring joy, such as eating tasty food, exercising, or achieving goals. Serotonin regulates mood and social behavior, contributing to feelings of satisfaction and calm. Oxytocin, sometimes called the "love hormone," plays a significant role in social bonding and trust, while endorphins help alleviate pain and induce euphoria.

Research has also identified structural and functional differences in the brains of people who report higher levels of happiness. These individuals tend to have increased activity in the prefrontal cortex and anterior cingulate cortex, areas responsible for decision-making, emotional regulation, and goal-directed behavior. Furthermore, the limbic system, particularly the amygdala and hippocampus, is deeply involved in processing emotions and memories, playing a crucial role in how we experience happiness. Studies have shown people with lower levels of happiness have different activations of different parts of the brain. Through use of functional MRI, researchers measure activity levels of these brain areas. Different areas, each of which responds to emotional variability, display increased activity, as shown in Figure 1 (4).

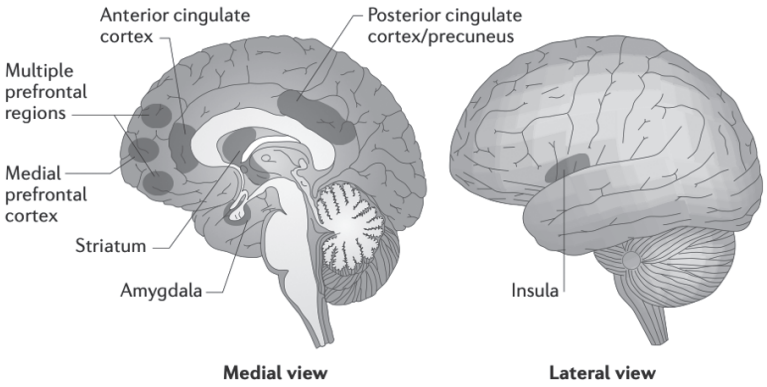


Figure 1 | **Brain regions involved in the components of mindfulness meditation.** Schematic view of some of the brain regions involved in attention control (the anterior cingulate cortex and the striatum), emotion regulation (multiple prefrontal regions, limbic regions and the striatum) and self-awareness (the insula, medial prefrontal cortex and posterior cingulate cortex and precuneus).

Tang YY, Hölzel BK, Posner MI, 2015

Pathologically, an imbalance in these neurochemical systems leads to mood disorders such as depression, where the brain's capacity to experience happiness is diminished. Restoring balance through therapy, mindfulness, or medication helps patients regain emotional equilibrium and increased levels of happiness. While, clearly, pre-existing physiological factors influence happiness among individuals, we can strive to implement various mindfulness techniques to better our ability to achieve happiness.

HAPPINESS THROUGH THE GROWTH MINDSET AND OPTIMISM

Carol Dweck, an American psychologist, developed the concept of the growth mindset in 2012. Her idea refers to the belief that one's abilities and intelligence develop through various effort and learning techniques. This mindset fosters resilience, enabling people to view failures not as roadblocks but as opportunities for growth (1). The growth mindset exists in contrast to the fixed mindset. Individuals who rely on the fixed mindset often fixate on failures or interruptions in their lives, unable to move forward and implement positive changes learned from their past experiences.

Optimism also plays a significant role in a person's ability to achieve and maintain happiness. Optimism refers to the tendency to focus on the positive aspects of life and to expect favorable outcomes. Optimistic individuals are better equipped to handle stress and overcome challenges, from minor setbacks to life-altering events (8). They cultivate happiness by framing adversity as temporary and solvable, rather than permanent and overwhelming. Mindfulness teaches us to incorporate optimism into our daily lives through good thoughts, good words, and good actions: principles that align with positive thinking and behavior.

Ultimately, happiness is a blend of mental and physical experiences. The growth mindset enables us to navigate failures with resilience, seeing them as necessary steps toward progress. Optimism allows us to approach life with a hopeful outlook, which enhances our ability to handle stress and to maintain mental well-being. Together, they provide the foundation for a happier, healthier life. Happiness also improves our physical health, with tangible benefits such as reduced stress, a stronger immune system, and better cardiovascular health. Therefore, happiness is both a mental mindset and a physical reality. By cultivating practices that foster happiness--such as adopting a growth mindset, maintaining optimism, and being mindful of our thoughts and actions--we not only improve our emotional well-being but also enhance our overall health and quality of life.

PANHANDLE HEALTH

A Publication of the Potter-Randall County Medical Society

Editorial Policy and Information for Authors

Purpose *Panhandle Health* strives to promote the health and welfare of the residents of Amarillo and the Texas Panhandle through the publication of practical informative papers on topics of general interest to most physicians while maintaining editorial integrity and newsworthiness.

Spectrum *The Journal* seeks a wide range of review articles and original observations addressing clinical and non-clinical, social and public health, aspects as they relate to the advancement of the state of health in the Texas Panhandle. Pertinent letters to the editor, news submissions, and obituaries listings are accepted pending editorial review. The Editorial Board accepts or rejects submissions based on merit, appropriateness, and space availability.

Submission process Material should be e-mailed to the editor at prcms@suddenlinkmail.com or mail a hard copy to Cindy Barnard, PRCMS, 1721 Hagy, Amarillo, TX 79106. A recent photograph of the author (optional) and a curriculum vitae or a biographical summary are also to be submitted.

Conflict of Interest Authors must disclose any conflict of interest that may exist in relation to their submissions.

Journal Articles Manuscripts should be double-spaced with ample margins. Text should be narrative with complete sentences and logical subheadings. The word count accepted is generally 1200 to 1500 words. Review articles and original contributions should be accompanied by an abstract of no more than 150 words.

References References to scientific publications should be listed in numerical order at the end of the article with reference numbers placed in parentheses at appropriate points in text. The minimum acceptable data include:

Journals: Authors, article title, journal, year volume, issue number, inclusive pages.

Books: Author, title, place of publication, publisher, year.

Web sites: URL of the site and the date the information was accessed.

Other sources: Enough information must be included so that the source can be identified and retrieved. If not possible, the information for source should be included parenthetically in the text.

Illustrations Illustrations should be black and white only with complete-sentence legend.

Previously Published Material Short verbatim quotations in the text may be used without permission but should be quoted exactly with source credited. Otherwise, permission should be obtained in writing from the publishers and authors for publishing extensive textual material that was previously published.

Editing Accepted manuscripts are edited in accordance with the *American Medical Association Manual of Style*.

Letters Letters will be published at the discretion of the editor and editorial board. The length should be within 400 words. References should not exceed five. All letters are subject to editing and abridgment.

News News should be e-mailed prcms@suddenlinkmail.com or mailed to Cindy Barnard, PRCMS, 1721 Hagy, Amarillo, TX 79106.

Obituaries Listings of deceased members of PRCMS with highlights of their contributions are published when adequate information is available.

Point of View Opinions published in any article, statement, or advertisement are the responsibility of the author and shall not be construed by any means to represent those of the editors or the medical society.

walk® with a doc

Amarillo

Saturday, February 15, 2025

9:30 – 10:30 AM

Medi-Park 1000 Wallace Blvd.

(meet at the AMBUCS park near the Discovery Center)

This walking program is a fun and safe place to take a walk (at your own pace), learn health tips from local healthcare providers, and meet new friends. The event is FREE and all are welcome!

Future walks will be held on the 3rd Saturday of every month.
Even months at Medi Park, odd months at Martin Road Park
In case of inclement weather, we'll meet at
Arts in the Sunset: 3701 Plains.

POTTER-RANDALL COUNTY MEDICAL SOCIETY
Founded 1903

Questions?
contact@walkwithadoc.org
(614) 714-0407

We are a local chapter of an international 501(c)3. Learn more at walkwithadoc.org

THE PHYSICAL BENEFITS OF HAPPINESS

Happiness has a profound impact on long-term health, influencing multiple bodily systems in positive ways. Research shows that happiness significantly helps to reduce the risk of chronic diseases, to promote longevity, and to enhance immune function. People who report higher levels of happiness also tend to have lower levels of cortisol, the hormone linked to stress. Lower cortisol levels directly correlate with reduced blood pressure and improved cardiovascular health, offering protection against heart-related conditions (10).

In recent years, numerous studies have explored the physiological effects of happiness, particularly through mindfulness practices such as cultivating a growth mindset and optimism. Researchers have observed changes in brain structure and function, including increased gray-matter volume, greater cortical thickness, and enhanced neuroplasticity. These findings suggest that mindfulness practices lead to measurable short-term and long-term benefits, contributing to overall brain health and emotional resilience.

LOOKING FORWARD

Happiness, though subjective, is a powerful force that influences both mind and body. By adopting a growth mindset, fostering optimism, and practicing mindfulness, we face life's challenges with greater resilience while also experiencing the physical benefits of a healthier, more fulfilling life. However, it's essential to acknowledge that not every day will be filled with happiness. Life's unpredictability often brings challenges beyond our control, and it's important to accept that sadness is a natural part of the human experience.

As we navigate the ups and downs of life, it's okay to feel down at times. What's crucial is how we approach those difficult moments: with support and adaptability. As we ride the rollercoaster of life, we cannot experience the ups without experiencing the lows. How we confront the lows shapes our strength and well-being.

People can call or text 988 or chat 988lifeline.org for themselves or for a loved one who may need crisis support. No matter where you live in the United States, you can reach a trained crisis counselor who can help.

REFERENCES:

1. Carver CS, Scheier MF. Optimism, pessimism, and self-regulation. Psychology Press. 2014.
2. Dfarhud D, Malmir M, Khanahmadi M. Happiness and health: the biological factors--a systematic review. Iran J Public Health. 2014;43(11):1468-1477.
3. Dweck C. Mindset: The New Psychology of Success. New York: Random House. 2007.
4. Kringelbach ML, Berridge KC. The neuroscience of happiness and pleasure. Soc Res (New York). 2010;77(2):659-678.
5. Ng B. The neuroscience of growth mindset and intrinsic motivation. Brain Sci. 2018;8(2):20. doi:10.3390/brainsci8020020
6. Steptoe A, Wardle J. Positive affect and biological function in everyday life. Neurobiology of Aging, 2011;32(2), 504–512.
7. Subjective Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience [Internet]. Washington (DC): National Academies Press (US); 2013 Dec 18.
8. Tang YY, Hölzel BK, Posner MI. The neuroscience of mindfulness meditation. Nat Rev Neurosci. 2015 Apr;16(4):213-25. doi: 10.1038/nrn3916. Epub 2015 Mar 18. PMID: 25783612.
9. Yeager DS, Dweck CS. What can be learned from growth mindset controversies? Am Psychol. 2020;75(9):1269-1284. doi:10.1037/amp0000794
10. Hannibal KE, Bishop MD. Chronic stress, cortisol dysfunction, and pain: a psychoneuroendocrine rationale for stress management in pain rehabilitation. Phys Ther. 2014;94(12):1816-1825. doi:10.2522/ptj.20130597

Ardalan Naghian is a fourth-year medical student at Texas Tech University Health Sciences Center, who is simultaneously working towards his master's degree in public health. He is originally from Plano, Texas, graduating from the University of Texas at Dallas with a degree in healthcare sciences. Ardalan's passion lies in the intersection of medicine and public health; he is committed to making a difference in both fields. He is dedicated to addressing systemic health challenges by bridging the gap between individual well-being and community improvement.

The New, The Novel, and The Next Generation of Psychoactive Medications

by Trista Askins Bailey, PharmD, BCGP, BCPS, FASCP;
Jacy Sconce, PharmD Candidate 2025;
Emily Lundy, PharmD Candidate 2025

Over the course of the past several years, significant advancements have been made in the pharmacological treatment of mental health disorders. Newer agents within various medication classes have been approved, offering improved safety profiles by reducing the adverse effects associated with older therapies and enhancing the duration of therapeutic benefits. Additionally, combination products have emerged, harnessing the synergistic effects of multiple agents to target specific psychological conditions more effectively. Research has also led to the discovery of novel mechanisms of action, enabling treatments to engage neurotransmitter pathways in innovative ways. Furthermore, several established medications have received expanded approvals, broadening their use to new indications or patient populations. These advances in psychoactive medication treatments offer new hope for improving patient outcomes by enhancing efficacy, minimizing side effects, and expanding therapeutic options.

RECENT UPDATES IN PSYCHOACTIVE MEDICATIONS: NEW OPTIONS ON THE HORIZON

Recently, the field of **depression** has welcomed some new players. Gepirone (ExxuaTM), approved in 2023 for major depressive disorder (MDD), has a novel mechanism that targets serotonin but acts as an agonist rather than a reuptake inhibitor. This new mechanism offers a different side effect profile that does not include the usual weight gain or sexual dysfunction associated with selective serotonin reuptake inhibitors (SSRIs), making gepirone a suitable candidate for patients struggling with these side effects. However, despite FDA approval, it is currently unknown when it will be on the market for prescribing. Dextromethorphan/bupropion (Auvelity®) was recently approved for MDD and has shown to improve depression symptoms as soon as one week from initiating the medication, which is a quicker onset compared to most other antidepressant options. Dextromethorphan acts to block N-methyl-D-aspartate (NMDA), which helps to decrease brain excitability, while bupropion functions as an antidepressant through dopamine and norepinephrine reuptake inhibition, augmenting the action of dextromethorphan. Dextromethorphan/bupropion is typically reserved for depression that is not responsive to first-line treatment. Cariprazine (Vraylar®) is a second-generation atypical antipsychotic that was originally approved in 2015 for schizophrenia and bipolar disorder. In 2022, cariprazine received extended approval as an add-on therapy for MDD to help augment the psychoactive medications that patients may already be taking.

In the area of **anxiety**, escitalopram (Lexapro®) gained extended approval for generalized anxiety disorder (GAD) in children 7 years old and older in 2023, which is exciting for a medication that has been in use for over 20 years. This extension makes escitalopram one of three SSRIs with FDA approval for GAD in this age group, joining citalopram and fluoxetine. Escitalopram comes in a tablet and solution version, which will be helpful for younger patients. However, prescribers still need to be aware of the boxed warning for all SSRIs, including escitalopram, regarding the increased risk of suicidal thoughts and behaviors in pediatric and young adolescents that was previously noted in short-term studies. Prescribers should watch closely for suicidal ideations in this patient population.

The last 5 years have brought significant changes to the treatment of **postpartum depression**. Prior to 2019, there were not any FDA-approved medications for postpartum depression and most options, such as SSRIs, used were based on off-label indications. In early 2019, brexanolone (Zulresso®) received approval for postpartum depression as a novel progesterone-based molecule similar to allopregnanolone. This molecule acts as a positive allosteric modulator on the GABA-A receptor. However, it does have a complicated administration regimen, since it is given as a 60-hour continuous intravenous infusion. Brexanolone is only available under a Risk Evaluation and Mitigation Strategy (REMS), and it also must be given in a monitored setting, such as a hospital, due to its risk of excessive sedation and/or sudden loss of consciousness during administration (for which is has a strong boxed warning). While brexanolone is an innovative take on postpartum management, this complex hospital-based administration may intimidate both new mothers and prescribers. To combat this issue, an oral GABA-A receptor positive modulator was developed as zuranolone (Zurzuvae®) in 2023. Zuranolone is an oral medication taken over a two-week period; it begins to show improvement within days of starting treatment. These special characteristics make zuranolone a better option than previous postpartum depression treatments, like brexanolone and SSRIs, that take longer to evoke a response and require longer overall treatment periods. (See also the article by Grant and Jurek in this issue.)

Schizophrenia treatment has long relied on the antagonism of dopamine and serotonin receptors utilized by

| *continued on page 34*

From the Potter-Randall County Medical Society

Active Members:

Anthony Joseph Agostini, DO
Kalil I. AL-Nassir, MD
Brendan C. Albracht, DO
Douglas Anthony Albracht, DO
Muhammed Farhan Ali, MD
James M. Allman, MD
Julie R. Allman, MD
Jade Garrett Anderson, MD
John Lee Andrew, MD
Carin C. Appel, MD
Antonio Venceslado Aragon, II, MD
Estelle Archer, MD
Lova T. Arenivas, MD
Alexander Woolf Armour, DO
Brent Loyd Artho, MD
Assadour K. Assadourian, MD
April Alexander Bailey, MD
Christi Anne Baker, MD
Teresa E. Baker, MD
William M. Banister, MD
Kuldip Singh Banwait, MD
George T. Barnett, MD
Scott Bass, MD
Perry Eugene Bassett, MD
Omar Bazzaz, MD
Sarah Emily Biggs, MD
William Curtis Biggs, MD
Kathryn Nicole Bonds, MD
Trey C. Bowen, MD
David Brabham, DO
Ako D. Bradford, MD
Todd W. Bradshaw, MD
Kenny Maurice Brantley, MD
Victor L. Bravo, MD
Walter Joseph Bridges, MD
David Ernest Brister, MD
Bartholomew A. Britten, MD
Charles D. Brooks, MD
Anna Christella Burson, MD
Agustin Cabrera-Santamaria, MD
Maria Cristina Espera Caga-Anan, MD
Richard Christopher Campin, MD
Londa Leigh Carrasco, MD
Roberto Bejarano Carrasco, MD
Debora Esther Carrizo, MD
Ricardo J. Carrizo, MD
Kade D. Carthel, MD
John R. Chandler, MD
Ashwin Chandra, DO
David Lyman Chastain, MD
David Childress, MD
Tadeusz Ciszak, MD
Abby S. Clark, MD
Crandon F. Clark, MD
Kathleen Anne Clark, MD
Summer Clark, MD
David Bruce Clarke, MD
Kelly Eileen Clements, MD
Elaine Remmers Cook, MD
Stanley D. Cook, MD
Dena L. Cornelius, MD
Amy D. Cosgrove, MD
Dhana Ruth Cox, MD
Eric Charles Cox, MD
Sammy Lane Cox, MD
Robert Norwood Crabtree, MD
Reagan Lee Crossnoe, MD
Samuel James Cunningham, MD
Tully J. Currie, MD
Michael E. Daniel, MD
Nicole Lee Davey-Ranasinghe, MD
William Wilder Davis, III, MD
Johannes De Riese, MD
Prakash K. Desai, MD
Javier Fernando Dieguez, MD
Nam Huu Do, MD
Amber A. Dobler-Dixon, MD
Cathryn Anne Doughtie, MD
Keith Elliott Dyer, MD
John Phillip Dzik, DO
Aaron M. Elliott, MD
Tyler H. Enos, MD
Bret D. Errington, MD
William Vance Esler, MD
Nolan Farmer, DO
Thahir Farzan, MD
Craig E. Fichandler, MD
Rex Albert Fletcher, MD
Ronald Wayne Ford, MD
Leonardo Forero, MD
Jeffrey L. Foster, DO
Dudley Earl Freeman, III, MD
Natalie Pardue Gaines, MD
Jonathan Paul Galassi, MD
Jennifer R. Gallagher, MD
Neetha Gandikota, MD
Amy Deanna Garza, MD
Jonathon Brett Gentry, MD
Mariada George, MD
Robert Evans Gerald, MD
Steven Edward Goettsche, DO
Adan Gonzalez, MD
Anuradha Srinivasa Gopalachar, MD
Miles Warren Grant, MD
Ruth E. Grant, MD
Jill A. Gulizia, MD
Christopher O. Gulley, MD, JD
Jon Luigi Haddad, MD
Paul Fereidon Hakim, MD
Michael Jay Hall, MD
Victor Vern Hands, MD
Jason Hemmerich, MD
Daniel J. Hendrick, MD
Hillary L. Hendrick, MD
Harry Marc Henson, MD
Pedro R. Hernandez-Lattuf, MD
Thomas R. Hines, MD
Shane Eugene Holloway, MD
Andrew Carl Hoot, MD
Richard C. Hopkins, MD
Luzma M. Houseal, MD
Debbie Pamela Hoving, MD
Genkai J. Huang, MD
Melburn Kenton Huebner, MD
James Matthew Hurly, MD
Christina Min Huseman, MD
Esther Orieaku Iheukwumere, MD
Chance Loomis Irwin, MD
Marc David Irwin, MD
Mouin Mahmoud Jaber, MD
Michael Dewayne Jenkins, MD
Paul Jew, MD
Ruiyang Jiang, MD
Jason K. Jones, MD
Jeff Josma, MD
Madhava Rao Kanakamedala, MD
Robert P. Kauffman, MD
Alan Wade Keister, MD
Chad M. Kennedy, MD
Mohamedaouf A. Khaznadar, MD
Richard Corvera Khu, MD
Joshua Edson Kilgore, MD
S. Caleb Kim, DO
Samuel Elam Kirkendall, MD
John Wilfert Klein, MD
Lauren Knight, MD
Christopher T. Kolze, MD
Rouzbeh Khosrovi Kordestani, MD
Megha Minesh Kureti, MD
Michael Odell LaGrone, MD, PA
Michael John Lamanteer, MD
Jenna K. Lane, MD
David Clayton Langley, MD
Jay J. Lee, DO
Benjamin J. Leeah, MD
James R. Lemert, MD

Art: Green Holiday Background Vectors by Vecteezy

Luke A. Lennard, MD
Hanlin Liu, MD
Lisa K. Longhofer, MD
Nicole D. Lopez, MD
Angus M. Lowry, MD
James E. Lusby, MD
Lyudmyla Mykolayivna Lysenko, MD
Taghreed Nayef Maaytah, MD
Andrew Wei Chong Mak, MD
George Mekhael Maliha, MD
Gerald W. Malkuch, MD
James Brian Malone, DO
Cameron L. Manchester, MD
Michael S. Manderson, MD
Lance Steven Martin, MD
Reg C. Martin, MD
Joaquin Martinez-Arraras, MD
Sambasiva Rao Marupudi, MD
Raphael J. Mattamal, MD
Elise M. May, MD
Gregory A. May, MD
Farley Esigfei Mba, MD
Lawrence Rush McAfee, MD
Edward McCarthy, MD
Rebecca McCarthy, MD
C. Alan McCarty, MD
Deborah Burge McCollum, MD
Allan James McCorkle, MD
James Scott McCown, MD
Ryan F. McKenna, MD
Dianne Sharon McKenzie, MD
Kathryn E. McNeil, MD
David Glen McNeir, MD
Shari Orlicek Medford, MD
Nilay V. Mehta, MD
Thomas M. Mercado, MD
Thomas Edward Merriman, MD
Scott Duncan Miller, MD
Sean Michael Milligan, MD
John Scott Milton, MD
Naila Sarwat Mirza, MD
Timothy S. Mooring, MD
Marc Moreau, MD
R. Thane Morgan, MD
Stacie Smith Morgan, MD
Sergio E. Muniz, MD
Amanda Dawn Murdock, MD
Richard G. Murray, MD
Brian Scott Murrell, MD
Walter John Murrell, MD
Tarek H. Naguib, MD
Rajesh Nambiar, MD
Susan Lynn Neese, MD
Bo Tanner Neichoy, MD
Que Vu Nguyen, MD
Anastacia J. Nix, MD
Lyle J. Noordhoek, MD
Steven Kyle Norris, MD
Joshua D. North, MD
Montana J. O'Dell, MD
Joel Craig Osborn, MD
James T. Osteen, MD
Lisa Marie Palacheck, MD
Paul Paolung Pan, MD
Creed L. Paris, MD
James R. Parker, MD
William Andrew Parker, MD
Michael J. Paston, MD
Tanay M. Patel, MD
Wayne C. Paullus, III, MD
Adrian P. Pay, MD
David M. Pearson, MD
Joshua C. Penniman, MD
Robert Louis Pinkston, MD
Robert Thomas Pinson, DO
Carlos Andres Plata, MD
Frederick Dean Poage, DO
Amber Marie Price, MD
Liana Herrera Proffer, MD
Patrick J. Proffer, MD
Paul Lyndon Proffer, MD
Nandkishore B. Raghuram, MD
Ron K. Rankin, MD
Anita Ravipati, MD
Paresh Anantray Rawal, MD
Arunava D. Ray, MD
Srini B. Reddy, MD
James Franklin Reid, MD
Mark Wayne Richardson, MD
Kevin James Rickwartz, MD
Timothy M. Risko, MD
Robert Houston Ritter, MD
Larry Clarke Roberts, MD
Jeri K. Rose, DO
James Avery Rush, III, MD
Ryan Bradford Rush, MD
Sloan W. Rush, MD
Constantine Khalil Saadeh, MD
Armando Salcido, Jr., MD
Ruby D. Saulog, MD
Lawrence Anthony Schaeffer, MD
Daniel Lewis Schneider, MD
Joseph P. Schniederjan, MD
Matthew Bleu Schniederjan, MD
Jason Schocker, MD
Janet Maurine Schwartzenberg, MD
Rebecca J. Scott, MD
Michael Dean Sennett, MD
Kaylee Jane Shepherd, MD
Isaac Siew, MD
John Brian Sims, MD
Monte Lynn Slatton, MD
Aubrey L. Smith, MD
Ryan Batson Smithee, MD
Joshua A. Sorenson, MD
D. Gary Soya, MD
Chiyyarath V. Sreehivasan, MD
James Harry Stafford, MD
Amy Leigh Stark, MD
David S. Stevener, MD
Mark E. Stevens, MD
Randy Lee Stewart, MD
Grace Lea Stringfellow, MD
Robert Houston Stroud, MD
Anthony Leonard Stuart, MD
Sivaram Sudhakar, MD
Janet Kay Swan, MD
Nibras Talib Mamury, MD
Andrew Bamnjo Tatah, MD
Victor Marcus Taylor, MD
Charles Sloan Teeple, MD
Hagos Tekeste, MD
Abdul Thannoun, MD
David Thetford, DO
Ira L. Thomas, MD
Stephen Taylor Tidwell, DO
Robert Mainord Todd, II, MD
Lance L. Trahern, MD
Salil Kumar Trehan, MD
Elijah Shaun Trout, DO
Keelie R. Tucker, MD
Praveen Kumar Tumula, MD
David Lindsey Tyson, MD
Lauren F. Underwood, MD
Martin Uszynski, MD
Julito Pujalte Uy, MD
Tetyana L. Vasylyeva, MD
Bradley B. Veazey, MD
Lisa Edelmon Veggeberg, MD
Neil Roger Veggeberg, MD
David D. Vineyard, MD
Travis J. Vowels, MD
Kent T. Weinheimer, MD
Rachel Andrew Weinheimer, MD
Wyatt Weinheimer, MD
Cody Jim Welch, MD
Carmen Marie Werner, MD
Erica K. Wheat, MD
Jeffery Terrill Whelchel, MD
David Michael Wilhelm, MD
Seth F. Wilhelm, MD
Jamie L. Wilkerson, MD
Jacob N. Williams, MD
James M. Williams, DO
Sheryl Louise Williams, MD
Anwar C. Wilson, MD
Joanna D. Wilson, DO
Susan T. Wingo, MD
Thomas Sanford Winston, MD
Bindu Bhargavi Yalamanchili, MD
Kishan Yalamanchili, MD
James Peter A Yhip, MD
John Martin Young, MD
Rodney B. Young, MD
Jason E. Ysasaga, MD
Lawrence Peter Zarian, MD
Shivani Dalal, MD

Table 1: Selected updates in psychoactive medications for certain psychological disorders

Major Depressive Disorder	Updates	Clinical Pearls	Dosing Range
Gepirone (ExxuaTM)	Novel mechanism	Acts as a serotonin agonist rather than a reuptake inhibitor, which results in increased serotonin	18.2-72.6 mg orally once daily
Dextromethorphan/bupropion (Auvelity®)	New medication	Combination of dextromethorphan (a commonly used over-the-counter cough medicine) and bupropion (a long-used antidepressant) that synergistically works together	45mg/105 mg orally twice daily
Cariprazine (Vraylar®)	Extended approval	Second-generation antipsychotic approved as adjunct therapy for major depressive disorder	1.5-4.5 mg orally once daily
Generalized Anxiety Disorder			
Escitalopram (Lexapro®)	Extended approval	Approved for generalized anxiety disorder in children 7 years and older	10-20 mg orally once daily
Postpartum Depression			
Brexanolone (Zulresso®)	Novel mechanism	Intravenous form of a naturally occurring progesterone called allopregnanolone - must be given as a 60-hour infusion in the hospital	Weight-based intravenous infusion of 30-90 mcg/kg/hour
Zuranolone (Zurzuvae®)	Novel mechanism	Oral formulation of positive allosteric modulator for GABA-A receptors that can be given as an outpatient	50 mg orally once daily
Schizophrenia			
Xanomeline/trospium (CobenfyTM)	New medication	A combination of xanomeline (muscarinic agonist) and trospium (muscarinic antagonist)	50 mg/20 mg orally twice daily up to 125 mg/30 mg orally twice daily
Attention-Deficit Hyperactivity Disorder			
Viloxazine (Qelbree®)	New medication	Mechanism similar to atomoxetine and provides another non-stimulant option for ADHD	200-600 mg orally for adults 100-400 mg orally for children <17 years old
Insomnia			
Daridorexant (Quviviq®)	New medication	Orexin antagonist that helps to promote sleep onset	25-50 mg orally at bedtime
Agitation due to Alzheimer's Disease			
Brexpiprazole (Rexulti®)	Extended approval	Only FDA-approved medication for agitation associated with dementia due to Alzheimer's disease	0.5-3 mg orally once daily

first-generation typical and second-generation atypical antipsychotics. However, there is a high rate of discontinuation of treatment due to the immense number and severity of adverse effects associated with these medications. Xanomeline/trospium (CobenfyTM), approved in 2024, utilizes a novel mechanism with a combination of xanomeline (a muscarinic agonist) and trospium (a muscarinic antagonist, typically used to treat overactive bladder). The pro-muscarinic actions of xanomeline act centrally in the brain to treat schizophrenia while the anti-muscarinic actions of trospium work to prevent peripheral adverse effects, such as excessive salivation and increased urination. The side effect profile of xanomeline/trospium is mild in comparison to other antipsychotics and consists mostly of gastrointestinal effects.

Other mental health disorders have seen new treatment options approved in the last few years. With the approval of viloxazine (Qelbree®) in 2021, children 6 years old and older have another non-stimulant option for ADHD management that works similarly to atomoxetine by blocking the reuptake of norepinephrine. In 2022, patients with insomnia gained access to daridorexant (Quviviq®), an orexin antagonist that has less daytime sleepiness and less fall risk than its counterparts. Daridorexant has a shorter half-life than other agents in this class, which reduces daytime sleepiness. Lastly, the FDA has approved brexpiprazole (Rexulti®) for use in agitation associated with dementia due to Alzheimer's disease. At this time, brexpiprazole is the only agent with this indication and may represent a major step in treatment of behavioral and psychological symptoms of Alzheimer's disease. Prescribers still need to be aware that brexpiprazole is a second-generation atypical antipsychotic and still carries a boxed warning for increased mortality associated with use in dementia-related psychosis. (See Table 1)

TEACHING OLD DRUGS NEW TRICKS

In recent years, research has increasingly explored the therapeutic potential of substances traditionally known for their recreational or illicit use. Drugs such as ketamine, cannabidiol (CBD), 3, 4-methylenedioxy methamphetamine (MDMA), and lysergic acid diethylamide (LSD) are being studied for their ability to address complex mental health conditions, including depression, anxiety, post-traumatic stress disorder (PTSD), and more. These studies suggest that, when used under controlled conditions, these substances can offer significant symptom relief with manageable side effects, marking a shift toward innovative approaches in psychiatric care.

Ketamine is approved as an agent for induction and maintenance of general anesthesia. It is known as a "dissociative anesthetic" because it induces a state of calmness and relaxation. However, it is also used as an illicit drug that can induce hallucinations with distorted perceptions of sight and sound. A study published in 2024 tested the use of low-dose ketamine in treatment-resistant depression (TRD). Results showed that ketamine was effective in reducing depression and anxiety symptoms rapidly after administration, with benefit lasting for about 7 days with no serious adverse effects. Some transient minor adverse effects were reported, including lightheadedness, blurred vision, and numb lips, but none lasted longer than 2 hours. This study shows that ketamine is not only efficacious in TRD, but also can be considered safe with no significant long-term adverse effects.

Cannabis has long been used as an illicit substance that induces a euphoric high for most users. While cannabis plants produce many types of cannabinoids, the two main ones are cannabidiol (CBD) and delta-9-tetrahydrocannabinol (THC). THC is the substance that produces the psychogenic effects, including hallucinations. However, CBD is a non-psychotropic agent and is the active agent in a FDA-approved product in the United States for certain seizure disorders under brand name Epidiolex®. Recently, CBD has shown significant benefits in patients with anxiety disorders. In 2024, a study was published evaluating the use of CBD in patients with mild to moderate anxiety. It showed significant improvement in anxiety symptoms when compared to placebo. Only minor side effects were reported, occurring in about 23% of participants. Patients in this study also reported improvements in their depression symptoms and sleep disturbances, which often accompany anxiety.

The product 3, 4-methylenedioxy methamphetamine (MDMA), which is also known as Ecstasy or Molly, is a stimulant that historically is used as a party drug due to its energizing properties. This drug can also induce serotonin release, leading to research of its use in stress-related disorders. For example, a study conducted in 2021 evaluated the use of MDMA as an adjunct therapy for patients with severe PTSD. The patients receiving MDMA reported significant improvements in PTSD symptoms when compared to placebo. MDMA also had minimal transient side effects and no reports of severe adverse events, showing it could be studied further as a potentially effective and safe option. Recently, however, the FDA refused to approve MDMA-assisted psychotherapy, pending further studies.

LSD is a potent hallucinogenic that is typically abused for its psychedelic properties. It currently has no medical indication but has recently been studied for a potential role in anxiety due to its action on serotonin receptors. In 2022, a trial evaluated whether LSD could be a treatment option in patients with anxiety. Participants receiving LSD treatment reported significant reductions in anxiety and depression symptoms over a 16-week span when compared to placebo. Minimal adverse events were reported, with only one serious adverse event that consisted of an acute anxiety/delusional episode. This shows that LSD could be further studied as an adjunctive therapy option for patients with anxiety.

In conclusion, the field of mental health treatment has experienced remarkable progress with the development of

Table 2: Selected illicit drugs with some evidence for use in psychological disorders

Agents	Psychological Disorder Studied
Ketamine	- Treatment resistant depression - Anxiety
Cannabidiol (CBD)	- Mild to moderate anxiety - Depression symptoms - Sleep disturbances
3, 4-methylenedioxy methamphetamine (MDMA)	- Severe post-traumatic stress disorder
Lysergic acid diethylamide (LSD)	- Anxiety - Depression symptoms

novel medications and the repurposing of existing psychoactive agents. These advancements offer new hope for individuals struggling with a range of psychological conditions, providing more effective treatments with fewer side effects. Innovations such as combination therapies, novel mechanisms of action, and the extended use of psychoactive medications for new patient populations reflect a growing commitment to personalized and precise medical care. Furthermore, research into previously stigmatized substances like ketamine, CBD, MDMA, and LSD highlights a shift toward exploring unconventional options to address complex mental health challenges. As science continues to evolve, these new and novel treatments represent promising avenues for improving outcomes and quality of life for patients, creating the next generation of treatment for psychological conditions.

REFERENCES:

1. Rodriguez L. 2023 in review: FDA approvals in psychiatry, tic disorders in youth, and insomnia in major depressive disorder. Psychopharmacology Institute. 2024 Jan [cited 2024 Oct 2]. Available from: https://psychopharmacologyinstitute.com/publication/2023-in-review-fda-approvals-in-psychiatry-tic-disorders-in-youth-and-insomnia-in-major-depressive-disorder-2838

2. Rodriguez L. 2022 in review: FDA approvals in psychiatry, pharmacotherapies for stimulant use disorder, and parasomnias triggered by antidepressant medications. Psychopharmacology Institute. 2023 Jan [cited 2024 Oct 2]. Available from: https://psychopharmacologyinstitute.com/publication/2022-in-review-fda-approvals-in-psychiatry-pharmacotherapies-for-stimulant-use-disorder-and-parasomnias-triggered-by-antidepressant-medications-2764

3. FDA News Release. FDA approves drug with new mechanism of action for treatment of schizophrenia. 2024 Sep [cited 2024 Oct 3]. Available from: https://www.fda.gov/news-events/press-announcements/fda-approves-drug-new-mechanism-action-treatment-schizophrenia

4. Ugorji U. FDA approved psychotropic medications: a list of recently approved psychotropic medications indicated for psychiatric disorders, including a look at drugs in the late-stage pipeline. MedCentral. 2021 Dec [cited 2024 Oct 2]. Available from: https://www.medcentral.com/meds/psychiatric/psychotropic-medications

5. Glue P, Neehoff S, Beaglehole B, Shadli S, McNaughton N, Hughes-Medlicott NJ. Ketamine for treatment-resistant major depressive disorder: double-blind active-controlled crossover study. J Psychopharmacol. 2024;38(2):162-167. PubMed PMID: 38293803.

6. Gundugurti PR, Banda N, Yadlapalli SSR, et al. Evaluation of the efficacy, safety, and pharmacokinetics of nanodispersible cannabidiol oral solution (150 mg/mL) versus placebo in mild to moderate anxiety subjects: a double blind multicenter randomized clinical trial. Asian J Psychiatr. 2024;97:104073. PubMed PMID: 38797087.

7. Mitchell JM, Bogenschutz M, Lilienstein A, et al. MDMA-assisted therapy for severe PTSD: a randomized, double-blind, placebo-controlled phase 3 study. Nat Med. 2021;27(6):1025-1033. PubMed PMID: 33972795.

8. Holze F, Gasser P, Müller F, Dolder PC, Liechti ME. Lysergic acid diethylamide-assisted therapy in patients with anxiety with and without a life-threatening illness: a randomized, double-blind, placebo-controlled phase II study. Biol Psychiatry. 2023;93(3):215-223. PubMed PMID: 36266118.

Dr. Trista Askins Bailey is an Associate Professor and Division Head for the Geriatrics and Pediatrics Division in the Department of Pharmacy at the Jerry H. Hodge Texas Tech University School of Pharmacy. In addition to her teaching, she has a practice site as a long-term care consultant pharmacist for nursing homes and assisted living facilities in Abilene, Texas. She is dual board certified in both pharmacotherapy (BCPS) and geriatrics (BCGP) and is a fellow of the American Society of Consultant Pharmacists. Outside of pharmacy, Trista likes to walk her dog, drive her 3 children to their extracurricular activities, and is always up to listen to a good murder podcast!

Jacy Sconce grew up in the small town of Cross Plains, Texas. She studied pre-pharmacy at McMurry University and started classes at Texas Tech School of Pharmacy at Abilene in 2021. She is set to graduate with her Doctorate of Pharmacy in May of 2025. She has had a passion for independent community pharmacy for the last 5 years and plans to continue her career as a pharmacist in this field.

Emily Lundy grew up Stephenville, Texas, where she met her husband and got her undergraduate degree in biomedical sciences at Tarleton State University. She had known for a long time that she wanted to pursue a career in pharmacy, so she decided to get her Doctor of Pharmacy degree at Texas Tech University Health Science Center in Abilene, Texas. She is set to graduate in May of 2025 and will work as a community pharmacist in Texas.

The Rural Roads of Mental Health

by Holly Jeffreys DNP, APRN, FNP-BC, PMHNP-BC, CRHCP
Dean of the College of Nursing and Health Sciences
High Plains Christian Ministries Professor of Nursing Leadership
West Texas A&M University

THE MEANING OF MENTAL HEALTH

If you asked your closest friends and family members to define mental health, you will likely get a wide array of responses. Mental health has different meanings for individuals based on unique perspectives and personal experiences, ranging from the adoption of good coping skills to a mild case of anxiety or depression to a serious mental illness resulting in substantial impairment. The World Health Organization (WHO) defines mental health as "a state of well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships, and shape the world we live in" (1). No matter how we define mental health or which path we choose to travel in our understanding and acceptance of the realities of mental health, we can probably all agree that mental health plays a crucial role in the overall well-being for individuals and communities.

THE PREVALENCE OF MENTAL HEALTH CONDITIONS

According to the most recent US statistics, at least one in five adults and one in three youth experience a mental health condition each year. Rates of mental illness across the US have steadily increased over the last five years. While mental health rates have been similar for both urban and rural areas, research indicates residents in rural areas experience significantly more challenges when it comes to managing mental health. In fact, suicide rates in rural regions are nearly double that of our urban counterparts, increasing by 55.3% from 2011 to 2022 (2).

Just like heart disease and diabetes, mental illness is a health condition with a plethora of associated risks, prevention strategies, and treatment options. Long term poor mental health can be associated with a shorter lifespan and increased comorbidities such as obesity, diabetes, heart disease, and cancer. A 2022 WHO report stated that people with serious mental health disorders are expected to die up to 20 years sooner than the normal population for curable physical reasons (1).

Individuals in rural regions, such as the Texas Panhandle, face numerous challenges different than those of urban areas. By understanding these challenges and implementing targeted strategies, communities can work towards improving mental health outcomes for rural residents. Through collaboration, awareness, and the expansion of resources, we can foster a greater understanding of mental health issues in rural areas, creating a more supportive environment for mental health and encouraging a positive change across the Texas Panhandle. Three distinct challenges for rural regions with regards to the management of mental health issues include significant barriers in availability, accessibility, and acceptability.

RURAL AVAILABILITY

In the Texas Panhandle, the interplay of geographical, cultural, and socio-economic factors significantly influences the management of mental health. Our rural regions are characterized by vast landscapes, agricultural communities, small towns, and a deep-rooted spirit of self-reliance. We boast of the rich cultural heritage in our close-knit communities as we work together to produce the vast amounts of food, fuel, and fiber that feed, power, and clothe the nation. While hard work and supportive communities play a significant role in mental health, so does the availability of mental health resources.

Of the 254 counties in Texas, 246 counties are designated as mental health professional shortage areas, and only 83 Texas counties report having a psychiatrist (3). Psychiatric Nurse Practitioners have stepped in to fill the gap with a 134% increase in the profession over the last 10 years. Regardless of the increase in mental healthcare providers, an unequal distribution of mental health providers persists when rural areas are compared to urban areas. The ongoing shortage of healthcare workers has had a significantly greater negative impact for rural communities over urban regions and, unfortunately, the ongoing shortage of health workers is anticipated to continue at least for another decade (4).

RURAL ACCESSIBILITY

For the rural communities that are fortunate enough to have mental health providers available locally, the associated cost of accessing these services can represent a significant barrier. Rural residents are typically older, poorer, less educated, suffer from a greater number of chronic conditions, and are less likely to have adequate resources, including transportation and adequate health insurance coverage. While telemedicine and telehealth services offer a viable solution for mental health consultations, up to 30% of rural residents still do not have the capabilities for adequate connectivity (5).

Rural Health Clinics often provide the only access to both primary care and mental health services for counties and communities. Federal law requires that care in rural health clinics be provided

by Nurse Practitioners at least 50% of the time, but staffing challenges continue to make this difficult. Texas regulatory restrictions for Nurse Practitioners continue to be one of the most significant barriers for rural health clinics. The preponderance of evidence suggests that burdensome regulations in Texas increase costs to facilities and patients and decrease quality and access to care (6). Unfortunately, Texas continues to rank the lowest of any state in access and affordability of health care. I believe that, by addressing regulatory restrictions, our legislative leaders have an opportunity to improve the future health of Texans.

RURAL ACCEPTABILITY

Decreased health literacy and a culture that emphasizes strong self-reliance and resiliency can deter help-seeking behaviors. A 2023 study assessing the awareness of mental health in rural communities indicated that 50% of the participants held only a basic understanding of mental health and mental illness, revealing a prevalence of overall negative perceptions in rural communities (7). These negative perceptions, coupled with a long-standing spirit of self-reliance and a pervasive mistrust for outside institutions, can hinder individuals from seeking care; this contributes to a complex mental health landscape where issues such as depression, anxiety, and substance abuse may be prevalent yet underreported and, as a result, undertreated.

RURAL ROADS AHEAD

Despite the myriad of challenges in rural areas, we can all do our part in positively impacting mental health by breaking down known barriers. We can increase our awareness of mental health conditions, highlight the importance of seeking help, encourage individuals to access available services, and remove barriers blocking our path toward better health (8). Collaboration among local organizations, healthcare providers, schools, law enforcement and state legislators can create a comprehensive support system for mental health. By working together, these entities can identify and address the unique needs of individual communities as well as the healthcare of Texans across the state.

RURAL CONNECTIONS

Communities can invest in the overall infrastructure by creating local partnerships with regional universities like WTAMU to access remote care as well as to participate in regional educational opportunities. These efforts can create a pipeline of professionals dedicated to serving home communities, thus making it easier for individuals within the community to seek help and access care. WTAMU and the Laura and Joe Street School of Nursing offer a number of programs--from our rural neighborhood nurse program to our mental health telehealth outreach to our collegiate addiction recovery education and support (CARES) program--where both individuals in your communities and on campus can connect with WTAMU for new or ongoing support. In addition, WTAMU offers hands-on comprehensive educational experiences for individuals desiring to pursue any number of career opportunities, including a wide array of health and mental health specialties. We know the needs for education and healthcare are lifelong, and those needs don't stop at a county line. We are proud to serve as the only regional university in the Texas Panhandle, and we look forward to partnering with you as we positively impact individuals and communities throughout our region and beyond.

REFERENCES

1. Mental Health Overview and Impact. World Health Organization. Available from: https://www.who.int/health-topics/mental-health
2. Morales DA, Barksdale CL, and Becket-Mitchener AC. A call to action to address rural mental health disparities. Journal of Clinical and Translational Science. 2020;4:463-467.
3. Health Professional Shortage Areas: Mental Health. Rural Health Information Hub. 2024 August 2. Available from: https://www.ruralhealthinfo.org/topics/mental-health
4. All Texas Access Report. Texas Health and Human Services. 2023 December. Available from: https://www.hhs.texas.gov/sites/default/files/documents/all-texas-access-report-dec-2023.pdf
5. Rural Minds [Internet]. The rural mental health crisis. Available from: https://www.ruralminds.org/rural-health-includes-mental-health
6. Issues at a Glance: Full Practice Authority. American Association of Nurse Practitioners. 2024 Aug. Available from: https://www.aanp.org/advocacy/advocacy-resource/policy-briefs/issues-full-practice-brief
7. Jayan V, Vishwas S. Awareness and practices in rural community regarding mental health problems. Cureus. 2023 June 11;15(6).

Dr. Holly Jeffreys completed a BSN and MSN from West Texas A&M University and a Doctorate of Nursing Practice from the University of Texas Health Science Medical Center. Holly is a licensed EMT, RN, and APRN with national Board certifications as a Family Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner, and Rural Health Clinic Professional. In addition to providing primary and psychiatric healthcare across underserved areas of the Texas Panhandle, Holly currently serves on the leadership team at WTAMU in her role as the Dean for the College of Nursing and Health Sciences. Holly serves our region in a number of local and statewide positions including Board President for Bushland ISD, Texas Board of Nursing advisory board, Northwest Texas Small Business Development Centers advisory board, Texas Clinical Partners Accountable Care Organization board of directors, Harrington Cancer & Health Foundation board of directors, and the Texas Lt. Governors' Advisory Board. Holly has been previously named Texas Panhandle Small Businessperson of the Year by U.S. SBDC SBA, Texas Nurse Practitioner of the Year by TNP, University of Texas Distinguished Alumni, and has been recipient of the TNA 25 Great Panhandle Nurses Award and the AANP State Excellence Award for Texas. Holly and her husband love ranching and rodeoing as well as spending time with their 4 children, 6 grandchildren, and extended church family and friends.

Conceptualization and Care for Those with Post-Traumatic Stress

by Elizabeth Clark, MA, LPC-S and Lori Thompson, MS4 (TTUSOM)

INTRODUCTION

People are amazing. Our brains and bodies are sophisticated and innately equipped for survival. Despite this, suffering exists. At times, difficult circumstances will overwhelm us and leave us with post-traumatic stress (PTS), a psychological injury. Like all injuries, PTS deserves care, compassion, and intentional treatment. In this article, I aim to glimpse into how we conceptualize and care for PTS. Although this article is an oversimplification, I believe this conversation matters.

DEFINING PTS

Post Traumatic Stress occurs when an event overwhelms an individual's capacity to cope. When we experience threat or prolonged stress, our nervous system responds with fight/flight or freeze/fold mechanisms to increase our potential for survival. Fight/flight responses promote safety through action, while freeze or fold (compliance) responses promote safety through enduring situations we cannot escape (1, 2). PTS disrupts an individual's perception of time. Individuals with PTS do not just remember traumatic information cognitively; they experience it as if it is still occurring. As a result, the mechanisms intended to keep us safe (fight/flight/freeze) become highly sensitive.

Imagine what it might look like to be "stuck" in fight/flight. We might describe an individual stuck in fight/flight as hyper-aroused or hypervigilant. They may suffer from reactivity, anxiety, sleep disturbance, muscle tension and pain, a high resting heart rate, or high blood pressure. Now imagine someone stuck in a freeze response. They might be hypo-aroused, avoidant, depressive, numb or apathetic, have difficulty with connection or intimacy, and suffer from increased dissociative symptoms. Depending on the trigger or the relationship, some individuals will suffer from both states. In all cases of PTS, there are intrusive memories, images, or sensations, and the stress response system is hypersensitive. Survival responses are engaged more readily, or in complex cases, engaged most of the time (3, 4).

Post Traumatic Stress Disorder (PTSD) is the DSM diagnosis we use to describe a specific set of symptoms an individual experiences in reaction to a traumatic event. For this article, I will use the term PTS.

EARLY TRAUMA AND COMPLEX PTS

Early in my schooling, I assumed that if someone experienced a traumatic event when they were "too young to remember" it would not impact them as much. I know now that the opposite is true. Trauma will most significantly impact whatever part of the brain is developing at the time. When we consider all the brain development that takes place in utero and first few years of life, it becomes clear that early trauma can have a devastating impact, even if there is no narrative memory (1, 2, 4).

Consider a tree. A mature tree can endure a thunderstorm, and, while it may lose a few branches, by the following season we probably won't be able to see the impact of the previous storm. The same storm, however, may affect the growth of a young tree for the rest of its life. Our brains are much the same way. Our brains develop from bottom to top, inside out (2, 3, 4). Without protective support and early intervention, early trauma impacts lifetime development. There may be insults in mood and sleep regulation, relational health and attachment, immune function, and many other health factors.

Complex PTS or Complex PTSD (C-PTSD) is the result of repeated or prolonged exposure to traumatic events or neglect where escape is not possible. C-PTSD is common in survivors of childhood physical or sexual abuse and early life trauma. C-PTSD impacts an individual's affect regulation, identity and worldview. As a result, there is often significant relational distress. Acute PTS, occurring from single or time-limited incidents such as a motor vehicle accident or assault, is more likely to result in hyperarousal and intrusive symptoms. C-PTSD more often results in a higher rate of dissociation, learned helplessness and perpetual shame (2, 3, 4, 5).

THE IMPORTANCE OF THOROUGH ASSESSMENT AND HISTORY-TAKING.

Clinicians cannot easily define the origin of mental illness. Mental illness at times occurs organically, with no clear contributing events. Even when we suspect this is the case, exploring an individual's unique history is crucial. If we only consider symptom presentation, it is easy to assume the hypo-aroused individual is depressed or the patient with severe relationship distress has borderline personality disorder. And while they may very well meet the criteria for these diagnoses, if we are not asking the right questions, we miss the opportunity to treat contributing factors. While standardized measures like the PCL-5 or DES-II can help us assess symptoms, a life experiences inventory or an adverse childhood events (ACE) scale can further alert us to the possibility of PTS that is subclinical or highly dissociative (5).

Regardless of the measure, our goal is to maintain curiosity. Curiosity is an antidote to judgment; it helps us to stay compassionate for ourselves and others. It is the practice of really seeing people. Can we be curious enough to consider that the symptoms we observe exist for a reason? Perry and Winfrey offer a small but powerful reframe in their book "What Happened to You." Rather than asking "What's wrong with you?", they ask "What happened to you?".

If we can take the time to learn someone's experience, will we foster safety in

the relationship, and the information we learn will lead to more appropriate treatment.

A WORD ON SECONDARY GAINS

I attended training with Ana Gomez, a leading expert on treating PTS in children. Ana offered a metaphor to describe the difficult work of trauma recovery:

Imagine growing up in Alaska where you learn you must wear a big heavy coat to survive. One day you are uprooted and move to sunny Mexico. In your big, heavy coat, you are hot and uncomfortable. People look at you funny and tell you, "Hey, life would be better if you just take the coat off." But in your mind, you would rather be hot, uncomfortable, and misunderstood than risk freezing to death.

Individuals with PTS are often hesitant or even terrified to practice different behavior. Skills that were once adaptive for survival, like aggression or over-compliance, are now maladaptive. To practice something different feels incredibly risky. This is especially evident in C-PTS (5). If a complex trauma survivor learned early in life that saying "no" led to increased abuse, she will avoid setting boundaries in adulthood. After all, boundaries lead to more suffering. In adulthood, it is not that she lacks the skills to say "no" or set boundaries: it is that setting boundaries feels fundamentally unsafe.

When an individual has primarily survived by freezing or dissociation, unfreezing will result in anger and rage (4). Unfreezing in psychotherapy involves the work of connecting to the body after one has been disconnected or numb. This requires tolerance of emotions and sensations. Cognitively, it is the shift from shame ("I am wrong or bad") to anger ("what happened to me was wrong or bad"). If the survivor has learned that anger itself is unsafe or "bad," there will be a temptation to re-freeze. In trauma therapy, however, anger is necessary. It represents a shift in responsibility and is often painful and scary.

When we observe confusing or frustrating responses in others, we must assume they are doing their best. We will never truly know the risk required to do something different. Healing is incredibly scary.

TREATMENT APPROACHES

Treatment for PTS aims to reduce symptoms and improve the quality of life for those who suffer. Treatment often includes both psychotherapy, which aims to process traumatic information both cognitively and somatically, and psychopharmacology to reduce symptoms and restore day-to-day functioning. People matter, and we desire to diminish suffering and restore quality of life.

PSYCHOTHERAPY AND THE IMPORTANCE OF STAGING TREATMENT

The American Psychological Association and World Health Organization recognize several effective strategies to treat PTS. In individual psychotherapy, the appropriate staging and pacing of treatment is one of the most important factors to consider.

Individuals suffering from PTS often lack safety in their bodies, have a low stress tolerance, and may have secondary gains that make treatment risky. We must stage therapy to honor the complicated work of healing. When we move too quickly to trauma processing, treatment can be ineffective at best and re-traumatizing at worst. Treatment can be conceptualized in the following 3 phases: establishing safety and stability, memory work or trauma processing, and post-traumatic grieving and the practice of new behaviors and boundaries. These phases are often not linear but offer a framework for psychotherapists (3, 5).

PHASE ONE: ESTABLISHING SAFETY AND STABILITY

Trauma survivors often feel unsafe in relationships, in the world, and in their bodies. Psychotherapy must first focus on creating safety. Effective psychotherapists will establish safety in the therapeutic relationship and guide the client in developing inner safety, or safety in the body. Goals in this phase will include establishing a safe therapeutic relationship, developing internal resources or coping skills to tolerate difficult feelings or emotions, and identifying or developing external support resources.

To establish safety within the therapeutic relationship, I must acknowledge my position of power. I am far less vulnerable than my clients in our relationship. I practice empathy and nonjudgement while establishing firm boundaries for our work together. I will not take advantage of any client's vulnerability. For example, clients who have survived through freezing or dissociation are more likely to be over-compliant in therapy. They may agree to talk about subjects or participate in therapeutic interventions that don't yet feel safe. So, we will practice boundaries in our therapeutic relationship (5). I have a small stop sign in my office that clients can use to signal a boundary with me if they feel they are outside their *window of tolerance" (3)*. We will check in frequently regarding their therapeutic experience.

We will also work to establish internal resources that help the client connect safely to their body. Hyperarousal often results in "flooding," where the individual is overwhelmed with sensations. Hypoarousal will result in feeling numb or disconnected. We will practice connecting to the body safely, titrating sensation to build tolerance (4)**. Phase one interventions may include mindfulness, breath work, self-compassion, external coping skills, or regulation scheduling. Body-based interventions may be used specifically to increase heart-rate variability, which may be connected to emotional regulation and is often lower in those with PTS (2).

Self-compassion is especially helpful during phase one (2, 5). Survivors of trauma may view themselves harshly or repeat messages internally that they heard from abusers (i.e. "you are not good enough", "suck it up", "it is your fault"). Self-compassion allows the survivor to respond to their suffering differently–with kindness and validation rather than judgment. This is a prerequisite to memory processing in phase two.

PHASE TWO: MEMORY WORK AND TRAUMA PROCESSING

We often think of phase two when we consider trauma work. As stated before, there are several effective approaches, including but not limited to eye movement desensitization and reprocessing (EMDR), somatic therapies, internal family systems (IFS), trauma-focused cognitive behavioral therapy (TF-CBT), exposure therapy, narrative therapy, and many others. I will not deeply explore any one intervention as I believe the overarching concepts are more important. I recommend a combination of both cognitive and body-based approaches. Survivors often cognitively know the event is over but still feel the impact as though they are reliving the event. We aim to process body memory as well as narrative memory. If the trauma was pre-verbal, or if survival heavily relied on dissociation, there may be little narrative memory. Somatic (body-based) approaches aim to disengage survival responses (fight/flight/freeze) and allow the individual to reconnect to a safe state, often referred to as social engagement (3, 5).

Treatment goals in phase two include distinguishing the past from the present, both cognitively and in the body (i.e., what was true then is not true now), continued practice in self-compassion, reframing beliefs around responsibility, and disengaging the nervous system response, all serving to return to a pre-trauma baseline (or new experience of safety if the case is complex).

PHASE THREE: POST TRAUMATIC GRIEF AND THE PRACTICE OF NEW BEHAVIORS AND BOUNDARIES

Grief does not always include trauma, but trauma will always include grief. While processing a traumatic experience brings relief, it will also bring waves of grief. We don't fully grieve while we are still surviving. Once a trauma survivor distinguishes between past and present (a goal of phase two), they often realize just what their trauma stole from them. They may grieve lost time, lost opportunity, or even the hope for a "redo". We must not ignore the painful process of grieving when we find ourselves in the aftermath of trauma (5).

While trauma processing may help disengage the overactive nervous system, it will not erase the once-effective strategies that kept the individual safe. Like physical therapy for an injury, PTS survivors must now commit to the intentional practice of new patterns and behaviors. Trauma survivors will work to find meaning and identity, to live out their values, and to engage in healthy relationships--all of which will take intention and risk. Therapeutic support will continue during this time.

PSYCHOPHARMACOLOGY

Psychotherapy is the cornerstone of PTS treatment, but medications play a crucial role in easing symptoms like hyperarousal, intrusive thoughts, and mood disturbances. Providers frequently prescribe SSRIs, such as sertraline orparoxetine, to address comorbid conditions like generalized anxiety and major depressive disorder. These medications are also FDA-approved for primary PTSD; they regulate mood and anxiety by increasing serotonin levels. Providers may also prescribe medications targeting alpha receptors, such as prazosin and clonidine. Prazosin is particularly effective for trauma-related nightmares, while clonidine has shown promise in reducing hyperarousal by calming the nervous system. Benzodiazepines treat acute anxiety, but providers often limit long-term use due to risks of dependency and interference with psychotherapy. Providers may consider antipsychotics and mood stabilizers in more complex cases. Emerging research on ketamine and psilocybin offers exciting potential for PTSD treatment (6).

Research supports several psychopharmaceutical options to reduce symptoms and support those who suffer. Medication support is often necessary to promote stability during phase one of psychotherapy but may be re-evaluated after memory processing in phase two. With thorough assessments and curiosity, medication management may provide the scaffolding for patients to do the difficult work of psychotherapy.

FINAL CONSIDERATIONS

PTS impacts every area of functioning. As a result, individuals may have difficulty accessing care. There are often financial barriers in addition to secondary gains. Individuals may have trouble attending appointments due to the severity of symptoms. Sometimes, our first intervention is to provide support for day-to-day functioning and to maintain compassion for individuals who are unable or not ready to engage in psychotherapy.

Supportive relationships are the most important protective factor. Attachment is a child's primary (if not only) means of safety (1, 2, 4). Safe relationships increase resilience and the capacity for self-regulation. When we create safe relationships and community, we treat trauma at its core.

Treatment of PTS is often slow and challenging. Providers who work with vulnerable populations and high need-clients risk burn-out. I often struggle to balance boundaries around time, energy, and resources with my desire to serve vulnerable people. I do not pretend to have a solution, but I aim to steward my gifts and resources so that I can operate according to my value system for as long as I am able. This work is important because people matter. As healing professionals, we must grieve the suffering we witness and connect to our own sources of support.

**Window of Tolerance is a concept from Sensorimotor Psychotherapy. The window of tolerance describes the degree to which an individual can tolerate stress before moving to fight/flight or freeze.*

***Titration is a concept from Somatic Experiencing. It is the practice of introducing increased exposure to sensation or emotion intermittently in order to incorporate more and more intense experiences safely and within the window of tolerance.*

For more information on the complex neurobiology of PTSD and research supported treatment options, I recommend the following article:

Shalev A, Cho E, and Marmar CR. Neurobiology and treatment of post-traumatic stress disorder. The American Journal of Psychiatry. 2024; 181: 705-719.

REFERENCES

1. Perry BD, Winfrey O. What happened to you?: conversations on trauma, resilience, and healing. New York: Flatiron Books; 2021: 58-59, 29-41, 75-92.
2. Van Der Kolk BA. The body keeps the score: brain, mind, and body in the healing of trauma. New York: Penguin Books; 2016: 82-87, 107-124, 54-58, 89-104, 268-271, 293-297, 162-163.
3. Schwartz A. The complex PTSD treatment manual: an integrative, mind-body approach to trauma recovery. Eau Claire, WI: PESI Publishing Inc.; 2021:1-8, 36-40, 24-27, 19, 41
4. Levine PA. In an unspoken voice: how the body releases trauma. Berkeley: North Atlantic Books; 2010:48-56, 135-138, 60, 88-91, 82, 99.
5. Steele K, Boon S, Van Der Hart O. Treating trauma-related dissociation: a practical, integrative approach. New York: Norton & Company; 2017:12-18,135-140, 481-488, 180-197, 67-92, 69, 12-13, 482-483.
6. Stein, MB. Posttraumatic stress disorder in adults: treatment overview. UpToDate. 2024 October. Available from: https://www.uptodate.com/contents/posttraumatic-stress-disorder-in-adults-treatment-overview

Elizabeth Clark is Licensed Professional Counselor (LPC) and a board approved supervisor in the state of Texas. Elizabeth is certified in Eye Movement Desensitization and Reprocessing (EMDR) therapy. Elizabeth owns Amarillo Professional Counseling and Consultation. She specializes in treating PTSD and complex trauma across the lifespan. In addition to her private practice, Elizabeth partners with numerous nonprofit organizations to provide high-quality services to their clients. You can learn more about Elizabeth and her work at www.amarillo-counseling.com.

Lori Thompson is a fourth year medical student at Texas Tech University Health Sciences Center School of Medicine, pursuing a career as a psychiatrist. She is currently living in Amarillo and enjoys spending time with her friends and hiking at Palo Duro Canyon.

Options for Treatment-Resistant Depression (TRD)

by James Rush, MD

Major Depressive Disorder (MDD) is one of the leading causes of disability worldwide, affecting approximately 8.9 million adults with medication-treated major depressive disorder in the United States, including approximately 2.8 million adults (30.9%) who exhibit treatment-resistant symptoms (1). MDD affects most families in the United States directly or indirectly. One of the most frustrating things about MDD is that it can be difficult to treat. Individuals with treatment-resistant depression (TRD) often experience prolonged depressive episodes, which can lead to treatment discontinuation prior to reaching recovery (2). These prolonged or recurrent depressive episodes can result in difficulties with social and occupational function, decline of physical health, suicidal thoughts, and increased health care utilization (3, 4). TRD is commonly defined as the absence of a response to two or more oral antidepressants of adequate dose and duration (4, 5). Response and remission rates are commonly-used outcome criteria for the treatment of depression, with the ultimate goal of achieving remission.

The Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study by the National Institute of Mental Health (NIMH) found that patients with difficult-to-treat depression can improve after trying multiple treatment strategies. The study's results have been in the news recently. Originally, patients receiving up to four different treatments were thought to have a cumulative remission rate around 67%. More recent analysis of this trial in 2023 found that those rates were probably overestimated, and the real cumulative remission rate was around 35%. Providers across the country use different scales such as PHQ-9, HAM-D, or MADRS, and so sometimes it is difficult to pool data together. We do know as a community that, when a patient fails an antidepressant and moves on to another one, the chance of that next antidepressant working goes down significantly. After a patient has failed four antidepressants, the chance of the next antidepressant working is somewhere around 10% (depending on which scale is used). Clearly, new treatments are needed to improve this response rate. I am going to discuss multiple treatments for TRD while spending the most time on esketamine, as I feel it has the best efficacy.

NEW APPROACHES FOR TRD: ESKETAMINE

Esketamine nasal spray (Spravato) is a noncompetitive N-methyl-d-aspartate (NMDA) receptor antagonist approved by the United States Food and Drug Administration, in conjunction with an oral antidepressant, for the treatment of TRD in adults and for the treatment of depressive symptoms in adults with MDD who have acute suicidal ideation or behavior. It is thought that esketamine works on the neurotransmitter glutamate, a neurotransmitter that traditional antidepressants have not touched. The majority of the antidepressants being used today work on serotonin, norepinephrine, and/or dopamine. Several real-world studies have demonstrated the benefit of esketamine treatments in adult patients with TRD. Based on a pivotal trial for the treatment of depression in the clinical setting, which used esketamine with an oral antidepressant, about 70% of patients can achieve at least a 50% reduction in symptoms. The esketamine studies also showed that 52.5% of patients taking esketamine treatments plus an oral antidepressant achieved remission. This is a huge improvement from past results in this field of psychiatry.

Esketamine treatments do require a larger time commitment on the patient's part. The FDA recommends that patients come in for esketamine treatments twice per week for four weeks, then once per week for four weeks, then every other week for four weeks for their first three months of treatments. After this, most patients require some form of maintenance to preserve their good response. Patients are required to spend a monitoring period of at least 2 hours in the office while receiving the esketamine treatments. Patients are not supposed to drive after their treatment until they have had a good night's sleep. As a result, the esketamine treatments require a time commitment and some planning. However, I was taught that most things in life require time, commitment, and planning in order to be successful. The major side effects reported with esketamine are dissociation, dizziness, sedation, nausea, and hypertension. A patient should have their vital signs monitored closely during the session. The medication has a short half-life, and studies of at least five years duration have shown no long-term side effects or addiction with esketamine.

NEW APPROACHES: TRANSCRANIAL MAGNETIC STIMULATION (TMS), COMBINATION THERAPY, L-METHYLFOLATE

Another treatment for TRD is Transcranial Magnetic Stimulation (TMS). TMS is a non-invasive medical procedure that uses magnetic fields to stimulate nerve cells in the brain. TMS, which is approved by the FDA, requires six weeks of once-daily sessions. TMS sessions normally last between 10 and 60 minutes, depending on the specific protocol. A typical session is 20 to 40 minutes long, but some TMS machines can

deliver high-frequency magnetic pulses in 10 minutes or less. About half of patients who undergo the treatments improve, and about a third experience remission from depression. These are great results for this patient population. TMS also requires time and commitment for the patient to get better.

Other treatments for TRD include the newer add-on medications that are normally in the atypical antipsychotic category. These medications include aripiprazole (Abilify), brexpiprazole (Rexulti), cariprazine (Vraylar), and extended-release quetiapine (Seroquel XR). Add-on medications are added to an antidepressant to give further relief with a different mechanism of action. They are normally used at lower doses where they have properties such as dopamine agonism. L-methyl-folate (Deplin) is another newer add-on medication that is a vitamin. This medication is sometimes appealing to patients who cannot tolerate antidepressants very well. The atypical antipsychotics can have side effects such as weight gain, hyperlipidemia, QTc prolongation, extrapyramidal symptoms, tardive dyskinesia, and sexual adverse effects. These medications should be closely monitored by the patient's mental health provider.

THE CONTINUED IMPORTANCE OF THE PSYCHOLOGIST AND THE THERAPIST

Individual therapies like Cognitive Behavioral Therapy (CBT) are also very wise to consider in patients struggling with TRD. The Texas Panhandle has many well-qualified therapists who offer these services. Most sessions last around an hour and meet regularly, such as weekly or every other week. With the popularity of Telemedicine, patients in the Texas Panhandle can access therapists all over the state and all over the nation (if that therapist has a Texas license). For patients needing more intensive services, both psychiatric hospitals in Amarillo offer Intensive Outpatient Programs (IOPs) that meet three to five days per week in a group setting for four to six hours per day. It is my belief that a combination of therapy and medication gives a patient with TRD their best chance of improving.

In summary, the future looks bright for psychiatry and the treatment of TRD. As mentioned above, several new and effective treatments have recently become available. Medications (such as psilocybin) with unique mechanisms of action are on the horizon. I do encourage all patients to invest time into improving their mental health and not to shy away from treatments that require more time. I also always encourage patients to do their own research on legitimate medical web sites (not people's blogs) for treatments that are soon to be approved. With a cooperative approach involving medications and non-drug therapies, more patients with treatment-resistant depression are able to achieve remission than ever before.

REFERENCES

1. Zhdanava M, Pilon D, Ghelerter I, et al. The prevalence and national burden of treatment-resistant depression and major depressive disorder in the United States. J Clin Psychiatry. 2021;82(2):20m13699. 10.4088/JCP.20m13699.
2. Voineskos D, Daskalakis ZJ, Blumberger DM. Management of treatment-resistant depression: challenges and strategies. Neuropsychiatry Dis Treat. 2020; 16:221–234. doi: 10.2147/NDT.S198774.
3. Burcusa SL, Iacono WG. Risk for recurrence in depression. Clin Psychol Rev. 2007;27(8):959–985. doi: 10.1016/j.cpr.2007.02.005.
4. Al-Harbi KS. Treatment-resistant depression: therapeutic trends, challenges, and future directions. Patient Prefer Adherence. 2012; 6:369–388. doi: 10.2147/PPA.S29716.
5. Gaynes BN, Asher G, Gartlehner G, et al. Definition of Treatment-Resistant Depression in the Medicare Population. Rockville: Agency for Healthcare Research and Quality (US); 2018.

Dr. James ("Jave") Rush has practiced psychiatry in the Texas Panhandle since 2009. He has served as the Chief Medical Officer for the national telehealth company, Forefront Telecare. He is currently one of the leading providers of Spravato, a cutting-edge treatment for Refractory Major Depressive Disorder.

HAPPY

A DIVISION OF CENTENNIAL BANK

Life is busy and there are plenty of things to worry about. Don't let your bank be one of them.

Having a strong financial partner in an uncertain economy is paramount to success.

Happy State Bank's patience, perseverance, commitment, and resilience have created a fortress balance sheet. Never have doubt in your money or your future with Happy State Bank.

HappyBank.com
A Home BancShares Company (NYSE: HOMB)

Member FDIC

Mental Health during the Menopause Transition

by Joanna Wilson, DO

Thanks to a recent flash of media attention, the menopause transition discussion is finally heating up in the medical community.

As a woman progresses through her fourth and fifth decades, ovarian egg aging results in unpredictable hormone fluctuations, which affect nearly every cell in a woman's body, including her brain. Many areas of the brain are rich in estrogen receptors, and several are rich in progesterone receptors as well. Estrogen fluctuations in the menopause transition can affect a woman's mood, sometimes to the degree of depression and anxiety. The peak timing of mood disorders for a woman is two years before and after her last menstrual period. Since the final menstrual period is a mystery until a whole year has passed, deciding when a woman is in this critical window remains an elusive art.

RISK FACTORS FOR ANXIETY AND DEPRESSION IN THE MENOPAUSAL TRANSITION

Identifying risk factors for depression and anxiety lies in the hands of all health care providers. A woman's prior sensitivity to hormonal fluctuations predicts increased sensitivity to the hormone roller coaster of the menopause transition. A history of premenstrual dysphoric disorder, anxiety or depression related to pregnancy and postpartum eras, and intolerance to prior hormone therapy (especially contraceptives) increases the likelihood of recurrence of depression or anxiety during the hormone fluctuations of perimenopause.

A history of depression, anxiety, or bipolar disorder increases risk of recurrence in the perimenopause transition, and the risk increases as well in women with a history of an adverse childhood event (ACE) While obtaining a detailed history of earlier traumas is not necessary, acknowledging the presence of an ACE can be one more detail to consider when determining the appropriate depth of screening. In addition, women with a family history of depression, anxiety, and bipolar disorder are also at increased risk of developing depression or anxiety in the perimenopause.

In women without prior history of mood disorders, lifestyle and life events increase her risk of developing one. Commonly, inadequate sleep duration or quality prevents the required brain reset for proper headspace. Detecting common issues - snoring, restless legs, pain, awakenings due to gastric reflux, overactive bladder, postnasal drip – in her or her partner might prevent the exhaustion which frequently precedes the collapse of her defenses to mood instability; simple measures might eliminate those middle-of-the-night thoughts of creative ways to silence a noisy bedpartner. In addition, sleep disruption by shift work and time-zone travel frequently disrupts mood. Vasomotor symptoms, known as night sweats, bother most women by affecting normal sleep stages and fragmenting sleep in devastating fashion.

Midlife stressors - career and financial challenges, health issues of self and loved-ones, caregiving obligations, and grieving the inevitable changes which occur because of aging – frequently contribute to mood issues. Women in this life stage often forgo their own emotional and physical care and focus on the needs of others, which erodes her social support network and her emotional and physical resilience.

DETECTION AND NON-PHARMACOLOGIC MANAGEMENT OF MOOD DISORDERS IN THE PERIMENOPAUSE

Screening tools commonly employed during annual visits work just as well during the menopause transition. Importantly, they help clarify the diagnosis of anxiety or depression from grief, a common experience of women in this age group. The Patient Health Questionnaire-9 (PHQ-9) for depression and the Generalized Anxiety Disorder-7 (GAD-7) for anxiety are available for free online and are commonly embedded in electronic medical records.

Once anxiety or depression is diagnosed, a holistic approach to treatment is best. Exercise helps reduce vasomotor symptoms and improves cognition and mood. Brainstorming low-cost exercise ideas and achievable goals for each patient improves the likelihood of implementation of exercise in her daily life. Sleep-quality improvement techniques and cognitive behavioral therapy for insomnia are first-line treatment; if unsuccessful, the use of non-habit-forming sleep prescriptions offer great relief from sleep problems. Since many studies show alcohol negatively affects mood and sleep, alcohol avoidance should top the list of helpful suggestions.

Nutrition and supplements show great promise for mood benefit. The Mediterranean diet, rich in omega-3 fatty acids and phytoestrogens, has been proven to improve depression and anxiety. Data suggests that the intestinal biome plays a huge role in neurotransmitter levels in the brain, and the vegetable-rich Mediterranean Diet cultivates biome diversity and neurotransmitter

balance. Some supplements, such as vitamin D3, zinc, EPA, and creatine may also be helpful in women who are deficient in them. Finally, avoiding heavily processed foods, such as fast-food and packaged foods with strangely long expiration dates, gives the biome better opportunity to aid brain function.

Despite jammed schedules and endless to-do lists, engaging in meaningful moments of joy and personal growth helps lower the healthy mood threshold!

Professional counseling (which can include interpersonal psychotherapy to aid women struggling with physical, occupational, and social role transitions at midlife), as well as cognitive behavioral therapy (CBT) (which helps to identify and alter negative thoughts) play a central role in mood treatment. Counselors and therapists offer a safe space, free from judgement and shame, where a person can repair and build from within. Often, combining therapy with medications achieves the best results.

PHARMACOLOGIC MANAGEMENT OF THE PERIMENOPAUSE

Prescription treatment should take several factors into consideration, such as the presence of vasomotor symptoms or chronic pain. Pregabalin is commonly used for pain and off-label for anxiety. Some medications might be less ideal due to side effects such as sexual dysfunction, weight gain, and potential interactions with other medications (e.g., paroxetine with tamoxifen). Good choices for women in the perimenopause include vortioxetine and desvenlafaxine due to less impact on sexual function and weight gain. Serotonin-acting antidepressants may also help reduce the frequency and severity of vasomotor symptoms. Initially, choosing the medication which worked well in the past for depression or anxiety is generally recommended.

Pharmacotherapy is even more nuanced in the realm of fluctuating hormone levels, though there is no need to check hormone levels in women experiencing typical perimenopausal symptoms. Likewise, a follicle stimulating hormone (FSH) level is not necessary if she has no risk of conception or if more than 12 months have passed since any spontaneous vaginal bleeding. Until that time, combination hormonal contraception stabilizes hormones and provides contraception until she is past the menopause and no longer fertile.

Estrogen therapy in the perimenopause and early post-menopause greatly benefits mood and may be used as first-line treatment in the appropriate patient after discussing its risks and benefits. Many FDA-approved, well-tolerated, and affordable options exist in a wide range of doses. Often, even the lowest potency patch or pill provides plenty of benefit. Remember to add progesterone or a progesterone-receptor agonist to protect a woman's uterus in the presence of systemic estrogen therapy. Since progesterone helps with sleep maintenance, adding it may also aid in sleep deficiency.

If estrogen is not suitable in a woman with vasomotor symptoms, data supports the mood benefits of elinzanetant, a non-hormone prescription for vasomotor symptoms. Evidence for testosterone or CBD/THC for depression or anxiety is insufficient.

In summary, hormone fluctuations alter brain regions and can predispose some women to episodes of depression or anxiety for a few years before and a few years after her final menstrual period. Annual screening for anxiety and depression, especially in vulnerable women, provides opportunities for intervention. Lifestyle optimization with great attention to regular exercise, Mediterranean diet, and high-quality sleep of adequate duration creates the foundation of treatment, with counseling and pharmacotherapy as additional proven benefits. Systemic estrogen (with progesterone, if necessary), solo or paired with traditional pharmacotherapy, helps stabilize the hormone chaos and improve mood during the perimenopause transition.

REFERENCES

1. Badawy Y, Spector A, Li Z, Desai R. The risk of depression in the menopausal stages: A systematic review and meta-analysis. Journal of Affective Disorders. 15 July 2024; 357: 126-133.
2. Pinkerton JV, Simon J, Joffe H, et al. Elinzanetant for the treatment of vasomotor symptoms associated with menopause: OASIS 1 and 2 Randomized Clinical Trials. JAMA. 2024;332(16):1343-1354. doi:10.1001/jama.2024.14618
3. Cano A, Marshall S, Zolfaroli, et al. The Mediterranean diet and menopausal health: An EMAS position statement. Maturitas. Sept 2020; 139: 90-97.
4. Herson M, Kulkarni J. Hormonal agents for the treatment of depression associated with the menopause. Drugs Aging. 2022;39:607–618. https://doi.org/10.1007/s40266-022-00962-x
5. Han B, Duan Y, Zhang P. et al. Effects of exercise on depression and anxiety in postmenopausal women: a pairwise and network meta-analysis of randomized controlled trials. BMC Public Health. 2024; 24:1816. https://doi.org/10.1186/s12889-024-19348-2

Dr. Joanna Wilson practices Internal Medicine with a focus on Women's Health at HerCare at Amarillo Medical Specialists. Her practice emphasizes patient interaction and evidence-based interventions to improve health spans. Through her medical student precepting and lectures, she teaches womanology and sex-differences in health and disease.

From the Potter-Randall County Medical Society

Residents:

Lauren Baker, MD
Christopher Bryan Ellen, DO
Thien Ngo, DO
Abiodun Okimi, MD
Kyrylo Olenych, MD
Joshua Sage Payne, DO
Mohammed Abdelsalam, MD
Falah Abu Hassan, MD
Obaidah Adi, MD
Tanzina Afrooze, MD
Tayo Ahmed, MD
Mustafa Al-Bayati, MD
Heba Aldarawsha, MD
Katie M. Alex, MD
Asim Ali, MD
Saima Almani, MD
Aram Aslanian, MD
Basak Basbayraktar, MD
Sheldon Baty, MD
Matthew Bigelow, MD
Samer Bou Karroum, MD
Joshua K. Briggs, DO
Ma Cristine Cabanas, MD
Sarah Grace Day, MD
Saanji Desai, DO
Charles Curtis DeWare, MD
Gnanashree Muthukaruppan Dharmarpandi, MD
Mousab Diab, MD
Noor Dweik, MD
Michael Ebrahim, MD
Brittany Egeh, MD
Mahmoud Elbadrawy, MD
Mahmoud Elmahi, MD
Alaa Mosad Elsaid ElZayat, MD
Brooke K. Estes, MD
Kawthar Faour, MD
Anum Farid, MD
Jessica Farlee, MD
James Faulkner, DO
Saima Hafiz, MD
Mai Hamaad, MD
Mevan Happawana, MD
MD RockyB Hasan, MD
Shereen Henin, MD
Brenden Herrod, MD
Ashton H. Hierholzer, MD
Colton Hoffmans, DO
Naila Iqbal, MD
Samra Iqbal, MD
Farzina Jafar, MD
Vaibhavi Jaywant, MD
Jebin Kaippallil Varghese, MD
Imtiaz Ahmed Khan, MD
Julia Magness, DO
Fatema Mahjabeen, MD
Letisha Mirembe, MD
Basheer Mohammed, MD
Kaitlyn Moseley, MD
Doan Ngoc Chau Nguyen, MD
Amaka Odimegwu, MD
Chukwunonye Ogubji, MD
Adaugo Opiegbe, MD
Muna Salah Mohamed Osman, MD
Maria Ostorga Menjivar, MD
Kajal Parikh, DO
Dhyanesh Patel, MD
Paige E. Phillips, MD
Thabit Farrukh Pulak, DO
Karla Patricia Querales Nava, MD
Aizah Rauf, MD
Anjali Rani Roy, MD
Ahtesham Sabir, MD
Fnu Sangeeta, MD
Laura Sexto Cintas, MD
Jairah Shaikh, MD
Bhamini Shekhawat, MD
Makena Renee Shields, DO
Jessica Lynn Sikora, MD
Nikita Singh, MD
Mohamed Sleem, MD
Kirstie Smith, DO
Nicholas S. Tahmassi, MD
Sadia Tanami, MD
Callie R. Todd, MD
Bailey Turbeville, MD
Onyinye Sylvia Ugoala, MD
Idoroeyin Una, MD
Brock W. Walker, MD
Sinan Yaqoob, MD
Sayma Yaqub, MD

From the Potter-Randall County Medical Society

Retired Members:

Ismaile Sherine Abdalla, MD
William Allen Anthony, MD
Branch T. Archer, MD
Grace Emily Archer, MD
Jack C. Arthur, MD
Beverly D. Axe-Lewis, DO
David F. Beggs, MD
Chand Bhasker, MD
William H. Bordelon, MD
Andrew F. Brooker, MD
Gary Lynn Brown, MD
Gary William Bryan, MD
James D. Bryan, MD
Bruce Alan Byrd, MD
Richard Bennett Clarke, MD
Dennis Bryan Dove, MD
John Robert Ellis, MD
Edgardo Trinidad Espiritu, MD
Roberto Estevez, MD
Don Leon Fong, MD
Bennie Ronald Fortner, MD
Nona Dale Fulton, MD
Milton A. Giron, MD
William A. Guynes, MD
Ann Elaine Harral, MD
George Havasi, MD
Robert James Hays, MD
Thomas Jefferson Hickman, MD
Richard M. High, MD
Jaime Jaime Hull, MD
Dennis Alan Ice, MD
W. Mitchell Jones, MD
Milan Kalus, MD
Panpit P. Klug, MD
Sien Hwie Lie, MD
James K. Luce, MD
Lewis C. Lyons, MD
Robin Elaine Martinez, MD
James W. Mason, MD
Vicente F. Maza, MD
Rahul C. Mehta, MD
Ralph Paul Mennemeyer, MD
Daniel J. Merki, MD
Carl T. Nichols, MD
Suryakant Jashbhai Patel, MD
Steven Shofner Patton, MD
Mary Ann Dunn Piskun, MD
Dennis Patrick Plummer, MD
Loralu Raburn, MD
Leslie Evan Reese, MD
Joan Eleanor Riker, MD
Charles Winford Rimmer, MD
James Franklin Rogers, MD
Thomas August Sames, MD
Usha Sethi, MD
Vinod K. Sethi, MD
Robert Duncan Sutherland, MD
Robert Lee Taylor, MD
Victoria Jean Thompson, MD
Robert Steven Urban, MD, MACP
Frank R. Vincenti, MD
Meganne Walsh, MD
Max E. Warren, MD
Michael Jay Westmoreland, MD
Sheri Richardson Williams, MD

Behind Closed Doors: Mental Health Challenges in Aging

by Kaitlyn Moseley, MD and Ellen Hampsten, MD

Between 10 and 20% of people over age 65 live with a potentially life-threatening condition that often goes unnoticed. This illness often hides from friends, family, healthcare providers, and sometimes even from the individual affected. It's easy to dismiss as part of aging, with phrases like "I'm just slowing down" or "I'm not feeling up to things like I used to". It can be hidden in a laugh as car keys are forgotten, a skipped TV show after years of faithful viewing, or in a 4 AM trip to the coffee pot after a sleepless night. Perhaps it's the crossword puzzle that is left unfinished or the cat's food dish that goes unfilled because getting up takes longer than it should.

Social connections may begin to fade—daily video chats turn into occasional phone calls, weekly bridge games become monthly, and preparing for church is interrupted by distractions like leaving clothes in the wash. Simple tasks become more daunting, and anticipation about the future grows into anxiety. In its most severe form, this condition can even lead to loss of life.

This illness can be exacerbated by the presence of other chronic health conditions, which is especially concerning since 80% of older adults have at least one chronic condition. Additional factors, such as financial strains following retirement, chronic pain, the experience of loss (e.g., death of a spouse, deaths of friends), or family members moving away, further increase risk of this disease.

Decreased functional ability—difficulty driving to social events or religious services—only heightens the sense of isolation, creating a new meaning for the term "Silent Generation." In the U.S., between 1.9 million and 3.6 million individuals over the age of 65 are homebound or have functional limitations that make leaving their homes difficult. These individuals are effectively hidden in their own homes, separated from communities, healthcare, and support networks.

DIAGNOSING AND MANAGING DEPRESSION IN THE ELDERLY

This disease is depression, and diagnosing it in older adults is particularly challenging because its symptoms often differ from those in younger people. While younger adults tend to experience mood disturbances, dysphoria, sadness, or guilt, older adults are more likely to show physical signs—sleep problems, fatigue, slowed movements, loss of interest in life, and feelings of hopelessness. Complaints about memory issues, trouble concentrating, slower cognitive processing, and executive dysfunction can mimic dementia, making it even harder for healthcare providers to identify.

This disparity in presentation, paired with differing generational attitudes and stigma surrounding mental illness, also contributes to the underdiagnosis and treatment of depression in older adults. Among those aged 55 and older, men aged 85 and older have the highest suicide rates, highlighting the urgency of recognizing and addressing this silent epidemic.

Effective treatment for depression is typically multimodal, incorporating both cognitive behavioral therapy (CBT) and medication. These approaches not only alleviate depressive symptoms but also reduce the risk of suicide. The risk of suicide can also be decreased by the presence of protective factors. Protective factors such as strong social relationships, community involvement in volunteer organizations or religious groups, and consistent access to quality healthcare play a crucial role in reducing suicide risk. Establishing these protective connections and helping individuals recognize their support systems are critical components of care.

Pharmacologic treatment of depression and other psychiatric illnesses in the elderly presents additional challenges, because of patient physiology, drug metabolism, and sensitivity to side effects. The most notable attempt to mitigate potential medication- associated risk in the elderly was spearheaded in 1991 by Dr. Mark H. Beers. He developed a set of criteria for inappropriate drug use, which was defined as use of medication where the potential risks outweigh the potential benefits. Criteria were reviewed and adjusted repeatedly by a panel of 13 experts to reach a consensus of medications that should be avoided in the elderly residing in nursing homes. Over the next three decades, the "Beers Criteria" were updated and adopted by various agencies as a standard of care and as a quality indicator. While this set of criteria is a valuable tool to help reduce medication-related adverse events, it can be restrictive and can lead to under treatment as it leaves few alternatives.

A seemingly simple office visit for depression in an elderly male with a history of stroke, high blood pressure, and vertigo can be significantly more difficult when attempting to mitigate medication side effects that could increase falls, alter blood pressure, or cause gastrointestinal symptoms.

BEHAVIORAL MANIFESTATIONS OF DEMENTIA AND DELIRIUM

A family may bring to the clinic a loved one who has had an increase in emotional outbursts or aggressive behavior. Advanced dementia can manifest as psychological or behavioral changes, including violent outbursts. Physicians must then navigate the difficult balance between alleviating the distress of both the patient and the family while managing the risks and side effects of psychiatric medications. These situations become even more complex when patients are no longer capable of making their own healthcare decisions and multiple family members are involved in care.

In the inpatient setting, geriatric patients are at increased risk for hospital-associated delirium, or a temporary and severe alteration in mental status. Delirium is reported to affect up to one-third of hospitalized patients over the age of 70. Effective treatment is complicated, as many medications that are the standard of care for younger populations carry significant "black-box" safety warnings when used in older adults. As a result, healthcare providers often face difficult decisions, balancing the need to protect patients with the potential for serious side effects, the most common being altered mental status and increased risk of falls.

A PATIENT-CENTERED APPROACH

Consider a patient with Parkinson's Disease (PD) who is unable to take oral medications, including those required to manage their Parkinson's symptoms. There are no alternative formulations available. In addition, hospitalized PD patients with delirium (as mentioned above, a common problem) may not always respond to behavioral and environmental measures; in these patients, pharmacological treatments for delirium, such as antipsychotics like haloperidol or olanzapine, may exacerbate Parkinsonian symptoms. In such cases, clinicians might opt for alternative treatments, such as quetiapine or benzodiazepines, both of which pose their own risks, including sedation and impaired cognitive function. This dilemma underscores the complexity of managing mental health in older adults, where therapeutic interventions must be carefully weighed against the potential for harm.

The challenges and considerations in the treatment of mental illness in aging populations are vast and multifaceted. Every individual brings a unique set of medical conditions, personal experiences, and preferences, making a one-size-fits-all approach inadequate. Successful treatment requires more than simply prescribing medication—it necessitates a transparent, ongoing dialogue between patients, families, and healthcare providers (including the nursing staff). These conversations must address the risks and benefits of different treatment options, especially considering that older adults often contend with overlapping mental health issues and chronic physical conditions.

In navigating treatment pathways, healthcare providers must also stay mindful of generational differences in how mental illness is perceived and how older adults respond to care. Cultural, emotional, and social factors greatly influence each individual's mental health experience. Therefore, a holistic, patient-centered approach is essential, ensuring that treatment plans are not only medically appropriate but also aligned with the patient's values, preferences, and lifestyle. Flexibility, compassion, and collaboration are key, and mental health care for older adults must evolve with their changing needs.

The subtlety of symptoms, the complexity of treatment, and societal perceptions often cause the mental health of older adults to be overlooked. Conditions like depression may remain hidden, masked by the broader challenges of aging and other chronic illnesses. However, early recognition, a comprehensive approach that integrates both medication and therapy, and fostering strong social connections can significantly improve outcomes. For healthcare providers and individuals of the community alike, staying vigilant about both the physical and emotional health of older individuals is crucial to addressing this growing public health issue.

REFERENCES

1. Garnett MF, Spencer MR, Weeks JD. Suicide among adults age 55 and older, 2021. NCHS Data Brief, no 483. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: https://doi.org/10.15620/cdc:133701
2. Qiu WQ, Dean M, Liu T, et al. Physical and mental health of homebound older adults: an overlooked population. J Am Geriatr Soc. 2010;58(12):2423-2428. doi:10.1111/j.1532-5415.2010.03161.x
3. Fiske A, Wetherell JL, Gatz M. Depression in older adults. Annu Rev Clin Psychol. 2009;5:363-389. doi:10.1146/annurev.clinpsy.032408.153621
4. Marcum ZA, Hanlon JT. Commentary on the new American Geriatric Society Beers criteria for potentially inappropriate medication use in older adults. Am J Geriatr Pharmacother. 2012;10(2):151-159. doi:10.1016/j.amjopharm.2012.03.002

Dr. Kaitlyn Moseley is senior resident physician at Texas Tech University Health Sciences Center School of Medicine in family medicine. She is passionate about the intersection of medicine and humanities, geriatric care, and inpatient care.

Dr. Ellen Hampsten has been a faculty physician at Texas Tech University Health Sciences Center School of Medicine since 2008. She is a family physician and has a special interest in medical student education.

Psychiatry in the Panhandle: The Past 30 years

by Mike Jenkins, MD

I attended Texas Tech University School of Medicine in 1982 and came to Amarillo in 1984 for my third and fourth year clinical rotations. After completing most of my rotations, my intention was to practice obstetrics and gynecology. I then began my final rotation in psychiatry with Dr. Mitchell Jones, who instilled in me a love for psychiatry and became my mentor through the years.

After completing a psychiatric residency at the University of Texas Tech Health Sciences Center in San Antonio and Audie Murphy VA hospital, my wife and I wanted to return to Amarillo. We interviewed at a private psychiatric hospital in Amarillo. While in Amarillo, I met with Northwest Texas Hospital psychiatrists Dr. Mitchell Jones, Dr. Hugh Pennal, Dr. Dewey Brittain, and Dr. Buster McCoy. These physicians had been providing almost all of the psychiatric care for the entire panhandle and surrounding areas for decades. They were responsible for building the Northwest Texas Hospital Psychiatric Pavilion. These men also provided the teaching and clinical instruction for the growing Texas Tech School of Medicine. Upon my return to Amarillo, this group of physicians blessed me by adopting me into their group and thus providing for the foundation and trajectory of my career.

In 1991, I began a solo private practice in psychiatry. I would share call in covering the Northwest Texas Hospital Pavilion and the emergency room with the long-established group of Dr. Jones, Dr. McCoy, Dr. Brittain, and Dr. Pennal. Another outstanding physician that I had the privilege of working closely with was Dr. Mustafa Hussain, who was then and continues to be very dedicated to the Texas Tech School of Medicine as well as to the people of the Texas Panhandle. I followed their dedicated work ethic and close working relationship with Texas Tech School of Medicine in Amarillo.

Throughout my years in private practice, I also had a worked with the public mental health system—specifically, Texas Panhandle MHMR, which is now Texas Panhandle Centers. During this time, in

close collaboration with a young psychiatrist, Dr. Alex Natividad, we established a telemedicine system to increase access to psychiatric care for the residents of the top 26 counties of the Texas panhandle. The system was the first of its kind in Texas.

Upon leaving private practice, I joined the Texas MHMR as chief medical officer. Throughout this time, I taught and mentored 3rd and 4th year medical students from the Texas Tech University School of Medicine in Amarillo. These students were educated in the areas of serious mental illness and how to interact with their patients in the future, regardless of the specialty they chose. I spent 13 years at Texas Panhandle MHMR, the public mental health system, before accepting the position of chairman of the department of psychiatry at Texas Tech School of Medicine in Amarillo.

Since my return to Amarillo, I have had the honor and privilege to witness the return of many excellent physicians to practice psychiatry in the Texas Panhandle. These dynamic psychiatric physicians include Dr. Jave Rush. He is responsible for one of the largest esketamine or specialty medication clinics in the region. This is a clinic for people suffering from severe treatment-resistant major depression. Dr. Rush is also actively involved in teaching students and supporting Texas Tech School of Medicine. Dr. Amy Stark, now chairman of the department of Psychiatry at Texas Tech School of Medicine in Amarillo, is also a returning student. She is extremely well-trained and has proven to be a leader in advancing psychiatric care throughout the panhandle. Dr. Stark has become a highly sought after mentor for the current medical students in training. Dr. Stacia Lusby has been instrumental in providing psychiatric care for the indigent, as well as those with intellectual and developmental disabilities in the area.

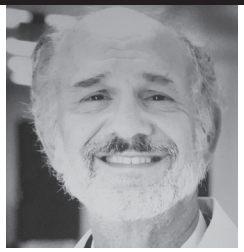
There are also many prior Texas Tech students who have returned to the panhandle to practice medicine in a variety of fields, including pediatrics and internal medicine, surgery, orthopedic surgery, cardiology and many others.

Advances in treatment in psychiatry over the many years I have practiced have been incredible. The diagnosis and treatment of psychiatric conditions has come 100 years in the last 10 years. Medications are much more effective now, with fewer side effects. That would include antidepressant medications, mood stabilizers, and antipsychotic medications, as well as anti-anxiety medications. For depression, there is now esketamine, or Spravato, which is a very rapid and effective treatment for major depressive disorder unresponsive to other treatments. There are now improved neuromodulation techniques, including noninvasive brain stimulation methods like transcranial magnetic stimulation (TMS), which modulates neural activity and improves symptoms. Psychotherapy treatment modalities such as cognitive behavioral therapy and eye movement desensitization and reprocessing (EMDR) are very effective when used concurrently with medication to alleviate the symptoms of virtually all psychiatric disorders. An increase in integrative approaches in psychiatry has emphasized the importance of incorporating psychiatric treatment into primary care. Understanding the underlying neurobiological source of mental illness is leading to new treatments, pathways and interventions, including novel medications which target specific neurotransmitter systems. To summarize, psychiatric treatment continues to evolve, and extensive ongoing research and clinical trials promise a very hopeful future for bringing almost all psychiatric disorders to the point of remission.

There are many challenges facing psychiatric care in this region. One specific challenge is a lack of providers and a very large patient population. With this being said, I remain optimistic for the future, especially with several dynamic psychiatric physicians returning to the panhandle, and the possibility of a psychiatric residency at Texas Tech University School of Medicine in Amarillo. Along with the building of a new psychiatric state hospital, Amarillo will be able to provide comprehensive care and improve accessibility to psychiatric treatment for many across the Texas panhandle.

For myself--37 years of practice and counting--it has been an honor and privilege to provide psychiatric care for people of the Texas panhandle. The future of psychiatry in this region is in good hands due to hard-working past and present psychiatric professionals, along with fine institutions and facilities for the treatment of those most in need of mental healthcare in Texas.

Dr. Michael D. Jenkins attended Texas Tech University, and then Texas Tech University School of Medicine. He completed a residency in psychiatry with a fellowship in sleep medicine at The University of Texas, San Antonio. Dr. Jenkins is married and has 2 children and 3 grandchildren. In his free time, he enjoys traveling.



Behavioral and Psychological Symptoms of Dementia: Overview and Treatment

by Steve Urban, MD, MACP

When you are caring for a patient with dementia, you are participating in a slow-moving tragedy of unimaginable proportions. A beloved spouse is gradually fading away; a mother or father is becoming so distant that they don't recognize their own children. Whereas sudden death of a loved one is shocking and unexpected, the progress of dementia is heartbreakingly slow and agonizing. Loved ones suffer every single day. There are few more devastating things in life, and you as a physician or caregiver bear witness to this tragedy.

This situation becomes even more complicated when Behavioral and Psychological Symptoms of Dementia (BPSD) develop. As we will see, apathy and depression often accompany dementia; they usually become more persistent as the dementia progresses. Things only become worse if agitation begins to complicate the issue. The patient may become verbally abusive or combative; a usually-placid loved one starts to shout and punch at the nurses. Or the patient develops delusions or hallucinations—they will accuse their elderly spouse of infidelity or think that their grandchildren have been replaced by impostors. Hallucinations (either visual or auditory) can be frightening to the patient and bewildering to family members. Other patients may become disinhibited. Grandpa starts exposing himself to passers-by, and the formerly mild-mannered preacher begins to curse like a sailor. And the occurrence of many of these psychiatric symptoms portends a markedly worse prognosis (often a 2 or 3-fold increase in mortality rate) in the course of dementia.

Preventing and managing psychological symptoms of dementia becomes an important job of the care team. In this short essay, I will describe the various dementias and some psychological manifestations that characterize each type. Then I will discuss management—both behavioral and pharmacological—of some of these syndromes. Unfortunately, the drug treatments that I will discuss are often ineffective and carry the risk of serious and potentially fatal side-effects. Few large, carefully- controlled studies have been conducted, and guidelines are often vague. And yet, sometimes, these symptoms carry significant risk of self-harm or harm to others, and you are asked to intervene.

THE DIAGNOSIS OF DEMENTIA

The diagnosis of dementia requires that more than one cognitive domain (memory, language, visuospatial function, behavior, executive function) be significantly impaired and that the impairment interferes with daily functioning. Most dementias affect memory early on, and memory loss is often the chief complaint, usually by the family. But isolated memory loss by itself doesn't mean that the patient is demented. It may represent something we call mild cognitive impairment (MCI). Although dementia is often preceded by MCI (the average duration of pre-existing MCI before Alzheimer disease is about 5 years), as many as 50% of patients with MCI never go on to dementia. Sometimes the deficit improves (perhaps the patient had an intercurrent illness or subclinical depression) and sometimes it remains stable, providing an irritation to the patient and family members but not impairing daily function. The rate of progression from MCI to dementia is 5-15% per year. Although behavioral interventions (e.g., brain exercises) may be slightly helpful, there is no safe and widely-accepted medication that alters the natural history of MCI. This is an area of active investigation.

Several memory assessment tools are available to help diagnose and characterize cognitive decline. Commonly used are the Mini-mental Status Examination (MMSE) and the Montreal Cognitive Assessment (MoCA). Many of these employ 30-point scales to characterize the stage of the dementia: 26-30: no impairment, 21-25: mild impairment, 11-20: moderate impairment, <10: severe impairment. Although these instruments assess multiple cognitive domains and are very useful clinical tools, they only give a snapshot at one point in time and do not assess the degree of functional impairment. Sometimes, formal neuropsychological testing (which is a bit hard to obtain in the Panhandle these days) is required for more detailed analysis of cognitive function.

Most primary care doctors, particularly geriatricians, are taught how to evaluate cognitive impairment in the clinic. If the diagnosis of dementia appears likely, a workup for treatable causes of dementia—including laboratory studies, CNS imaging and sometimes specialized tests—is undertaken to rule out "treatable causes of dementia" such as Vitamin B12 deficiency, hypothyroidism, and normal pressure hydrocephalus. (In this author's opinion, finding a "treatable" cause of cognitive loss isn't all that it's cracked up to be. I saw several patients with elevated TSH levels who progressed despite appropriate L-thyroxine replacement. And determining which patient with dilated ventricles will respond to CNS shunting remains an imperfect art).

I will mention one especially treacherous pitfall: the pseudo-dementia of depression can be very difficult to distinguish from Alzheimer Disease and the other dementias. Purportedly, checking a PHQ-9 or ordering detailed neuropsychological testing will parse this out, but that it not always so. I will never forget a patient who seemed (from history, clinical exam, MoCA, and negative lab and imaging studies) to have Alzheimer disease. I gave her a trial of SSRIs, to no effect; she was well-heeled, so I sent her to the Memory Clinic at Duke University for a second opinion. They concurred in the diagnosis of AD. Fast forward a few years, when my wife and I were dining out. Ms. X came up to me and brightly said, "Dr. Urban, do you remember me? You thought I had Alzheimer disease, and all the time I was just depressed. Now I'm right as rain!" What can you say; separating the pseudo-dementia of depression from AD can be tricky. Life—and diagnosis—can be complicated!

CLASSIFICATION OF DEMENTIA, AND BPSDS THAT CHARACTERIZE EACH TYPE

Of the common causes of dementia, **Alzheimer disease** (AD) is the most prevalent, making up over 60 % of all cases. Five million Americans are living with AD at any one time. Psychological co-morbidities are common in the multi-year course of AD. Depression and apathy occur in 60-80% of AD patients, and each increases the mortality rate twofold or more. Given the difficulty in picking up the pseudo-dementia of depression, and the problems eliciting a reliable response to questionnaires from a cognitively-impaired patient, patients are often given a therapeutic trial of an antidepressant (usually a SSRI) early on in the course of AD. Apathy can be just as troubling to the family. Their loved one just seems to lack motivation to get up and around, to attend to personal hygiene, and to cooperate with planned activities. One patient colorfully told me: "my give-a-shitter is broke." Agitation occurs at some time in 30-60% of AD patients (especially with changes in environment or intercurrent illness). Hallucinations, delusions, and derepressed behaviors are common, especially as the disease progresses. As you can well imagine, these behavioral features are distressing the family members (and sometimes to the patients themselves), and they significantly increase the chances that the patient will be institutionalized.

Certain dementias carry risks of particular psychiatric manifestations (4). **Dementia with Lewy bodies** (DLB) is one of the gait-predominant dementias (along with normal pressure hydrocephalus and Parkinsonian dementia). That is to say, in these conditions, gait difficulties and instability are early signs of the illness. You should think of DLB if the patient has recurrent visual hallucinations early in the course, has prominent fluctuations in level of consciousness (e.g. overwhelming daytime somnolence), or has REM sleep behavior disorder. In REM sleep behavior disorder, people act out their dreams; this includes thrashing about or shouting but may involve violent flailing that can injure the bedpartner. Also characteristic of DLB is extreme sensitivity to neuroleptic medications (especially 1st generation psychotropics). Treatment of the hallucination with neuroleptics, for instance, may result in severe extrapyramidal reactions, orthostatic hypotension, and even death. If these behavioral features occur early in the course of dementia, you should consider dementia with Lewy bodies.

Another dementia with prominent neuropsychological symptoms is **frontotemporal dementia** (FTD). I have often said that FTD is my least favorite disease to encounter. It is often familial, has a relatively young age of onset (often in the 50s or 60s), and can be very difficult to diagnose. This is because the psychological symptoms often precede memory loss. In the frontal lobe or behavioral variant of FTD (the commonest subtype), patients experience frontal lobe disinhibition. They lack executive ability and have no insight into their deficit. They may make erratic business decisions, become rude and insulting to coworkers, tell inappropriate jokes, or display sociopathic tendencies—all long before the diagnosis is ever made. Plus, this disease is very difficult to treat. Although compulsive behaviors in FTD may respond to SSRIs, cholinergics and memantine don't help. FTD progresses more rapidly than the usual dementia, and patients often require early institutionalization. It is simply a horrible disease.

Other dementias have their characteristic behavioral manifestations. **Vascular dementia** can lead to "pseudobulbar affect" (sudden, uncontrollable outbursts of laughing or crying). **Parkinsonism** is associated with a very high incidence of depression, and a 30-60% chance of impulse-control disorder, especially with dopamine agonist therapy. The latter may include impulsive gambling, hypersexuality, binge eating, etc.

PREVENTION AND NON-PHARMACOLOGIC MANAGEMENT OF BPSD

Every expert recommends that prevention and management of BPSDs begin with non-pharmacological measures. Numerous interventions have been studied, and most have shown low- or moderate-quality evidence of benefit. Interventions have usually been studied in the nursing home setting, but many are amenable to use at home by family members or caretakers. Interventions include activity-centered therapy (exercise classes, water therapy, structured activities), sound-based treatments (music therapy, playing recordings of the voices of loved ones), aromatherapy, bright-light therapy, touch therapy—the list goes on (2). It is hard to tell from reviewing the literature which approach is best—but most experts recommend an individually tailored, multimodality approach, with more intense periods of reorientation when the patient becomes agitated or combative.

Before going on to pharmacology, I want to emphasize two things: (a) that non-pharmacological measures are recommended by all experts (since many drug interventions pose a risk of significant side effects), and (b) that the staff and doctors should be attentive to the possibility that a deterioration, especially if sudden or rapid, may indicate delirium (a temporary, reversible confusional state). Although we associate such deteriorations with a change of surroundings (i.e., hospitalization, or even a seemingly minor change such as moving to a new room), you should be cognizant of fever or infection (e.g., a urinary tract infection), medication side effect, unrecognized pain (e.g., a fracture or pressure ulcer) as a precipitating cause. If identified, these precipitating causes are often treatable, and the patient will usually return to their baseline state.

PHARMACOLOGIC MANAGEMENT OF BPSD

Most management decisions are based not on an underlying diagnosis, but on syndromes or manifestations that may call for treatment. I will review the treatment for each manifestation below.

1. **Depression**. Antidepressants seem to work less well in the population of demented patients than in non-demented patients. Several studies have shown equivocal results with SSRIs or SNRIs. The best data exists for citalopram, but at a higher-than-usual dose of 30 mg/d. To complicate matters, it can be hard to use standard measures of benefit (i.e. the PHQ-9) due to the unreliability of patient answers to the questions

2. **Apathy.** Apathy is often associated with frontal lobe hypometabolism on functional MRI scans, suggesting that frontal-subcortical connections are disrupted. There is no approved treatment for this distressing syndrome. Use of modafinil has led to equivocal results, and trials with psychostimulants such as methylphenidate are ongoing. In general, I would say that treatment of apathy with psychostimulants is not ready for prime time.

3. **Agitation**. Most occasions to consider pharmacotherapy relate to agitation (3). It can lead to self-harm (i.e. falling out of bed) or harm to others (i.e. hitting the nurse's aide) and is very distressing to families. Standard management has been with atypical antipsychotics, especially low doses of quetiapine (Seroquel), risperidone (Risperdal) or olanzapine (Zyprexa), but the FDA has imposed a black box warning on most first and second-generation antipsychotics due to a 1.6-fold increase in the incidence of stroke and short-term mortality. Two recent studies (12-week placebo-controlled studies of 433 and 270 patients) have led to FDA approval of brexpiprazole (Rexulti) for treatment of acute agitation in demented patients. Although no increased side-effects or mortality were observed in either study, in my opinion the improvement was modest, and this medication costs $1,600 per month (retail price). The management of acute agitation is complicated; perhaps a small increased risk of mortality is not the worst conceivable outcome in an inexorably deteriorating, severely demented patient. Close consultation with the family is paramount in this situation.

4. Psychotic symptoms such as **delusions or hallucinations** (1). These symptoms, if mild and non-distressing to the patient, may often be tolerated without drug treatment. If severely distressing to the patient, treatment with second-generation antipsychotics has been standard therapy; quetiapine (Seroquel) has often been used. But recent data seems more favorable for risperidone and aripiprazole (Abilify) in this population. A recent study has favored the consideration of pimavanserin (Nuplazid), in patients with Parkinsonian dementia. This drug is not a dopamine blocker (like most antipsychotics) but is a mixed agonist/antagonist of several of the serotonin receptors. Consequently, it won't worsen the movement disorders in PD (or in DLB). Subgroup analysis, however, showed benefit only in PD; patients with Alzheimer disease showed no significant improvement. Therefore, the FDA approved it for use only in PD patients. Pimavanserin costs almost $5,000 per month; so standard atypical antipsychotics are still the usual choice in non-Parkinsonian dementia patients.

5. **Disinhibition** is a very difficult symptoms to treat. Patients with compulsive features may respond to SSRIs, but other symptoms are currently untreatable. Trying to get family members and visitors to understand that these are not voluntary or intentional actions may help. I tell family members that, if Reverend Jones begins to swear profusely and grab at the nurses, it is not really the good Reverend who is misbehaving. The disease has taken over, and their loved one is no longer calling the shots. The family should cherish the memories of what their loved one was like before this terrible disease took over.

6. **Anxiety**. The important thing to remember here is that benzodiazepines make demented patients worse—whether you are treating anxiety or agitation. Giving a demented patient a benzo is like giving them a couple of stiff drinks. For a patient who is already bewildered in their environment, this will only make things worse. If you completely knock them out, they will (hopefully) wake up. Reorientation procedures are often helpful acutely, and SSRIs may provide slight benefit in the long run.

7. **Pseudobulbar affect**. In patients with vascular dementia and distressing "emotional incontinence", the combination of dextromethorphan and quindine (Neudexta) has been approved by the FDA. Why this combination of two generically available and cheap drugs is priced at $1,000/month is beyond me.

CONCLUSION

Dementia is a personal tragedy that inflicts almost unimaginable suffering on the family. You should always be aware that you, who see the patient once a month, have no idea of the magnitude of the patient's bewilderment or the family's slowly unfolding grief. Remember too that no two demented patients—no matter what the underlying diagnosis, no matter what the stage—are ever quite the same. Some patients are sweet and placid as they slowly melt away from the world; some become "another person", speaking cruelly to loved ones or thrashing about in agitation. Of course, we caregivers want to respond to the situation—sometimes with orientation techniques or nonpharmacological management, sometimes with medications. We want to prevent harm and to decrease the suffering of the patient, family members, and nursing staff alike. In our zeal to relieve symptoms, however, we need to be aware of the flimsiness of our tools, of their ability to cause harm as well as relief, of the benefit of simply holding the hand of the sufferer. Nature is not always red in tooth and claw; sometimes she quietly disrespects your dignity while she is getting you out of the way. All our interventions cannot disguise this uncomfortable truth. So, do what you can; do your best to relieve the suffering that you see. But understand that, in the management of dementia, there are limits to the amount of good that you can do.

REFERENCES

1. Cummings J, Lanclot K, Grossberg, Ballard C. Progress in pharmacologic management of neuropsychiatric syndromes in neurodegenerative disorders. JAMA Neurology. June 2024; 81 (6): 645-53.
2. De Oliveira AM, Radanovic M, de Mello PCH, et al. Nonpharmacological interventions to reduce behavioral and psychological symptoms of dementia: a systematic review. BioMed Research International. 2015; 2015:218980. doi: 10.1155/2015/218980. Epub 2015 Nov 29.
3. Devanand DP. Management of neuropsychiatric symptoms in dementia. Curr Opin Neurol. October 2023; 36 (5):498-503.
4. Maristany AJ, Sa BC, Murray C, et al. Psychiatric manifestations of neurological diseases: a narrative review. Cureus. Jul 2024;16(7):1-14.

Dr. Steve Urban is a retired internal medicine doctor. He spent 20 years in private practice and 20 years in academic medicine at the Texas Tech School of Medicine, before his retirement. He still lectures and tutors occasionally at the medical school. He has been on the editorial board of Panhandle Health off and on since the 1990's. He has served as editor-in-chief five times, and will turn the editorial reins over to Dr. Scott Milton after this issue.

PROFESSIONAL CARDS

Dermatology

HIGH PLAINS DERMATOLOGY CENTER, P.A.

Scott D. Miller, MD

Jason K. Jones, MD

Christi A. Baker, MD

Tyler H. Enos, MD

4302 Wolflin Ave.

Near I-40 & Western

(806) 355-9866

Fax (806) 355-4004

PALO DURO DERMATOLOGY, PLLC

Larry C. Roberts, MD

M.A., F.A.A.D.

Diplomat of the

American Board of Dermatology

2005 N. 2nd Ave., Ste.D

Canyon, Texas 79015

(806)510-3376 • Fax: (806)510-3379

www.palodurodерm.com

Hearing

PHYSICIANS HEARING CENTER

Royce A. Armstrong, Au.D., CCC-A

Ryanne Tindell, BS

Audiologist Intern

3501 S. Soncy Road #140

Amarillo, TX

(806) 352-6901 • Fax (806) 352-2245

POTTER-RANDALL COUNTY MEDICAL SOCIETY

Founded 1903

Internal Medicine

Mouin M. Jaber, MD

Board Certified in Internal Medicine

3504 N.E. 24th

Amarillo, TX 79107

(806) 381-1732 • Fax (806) 381-0748

AMARILLO DIAGNOSTIC CLINIC

6700 W. Ninth

Amarillo, TX 79106

(806) 358-0200

Gastroenterology

Daniel A. Beggs, MD

R. Todd Ellington, MD

James E. Lusby, MD

Haq Nawaz, MD

Infectious Disease

J. Taylor Carlisle, MD

Flint Smith M.D.

Internal Medicine

Holly Mitchell, MD

Adrian Pay, MD

Neurology

Sean Milligan, MD

Pulmonary Diseases

Timothy S. Mooring, MD, ABSM

Javier Dieguez, MD

Robert Walley, DO

Rheumatology

Ming Chen, MD, Ph.D

Ali Hussein, MD

Sleep Disorders

Timothy S. Mooring, MD, ABSM

Physician Extenders

Kyla Beedy, RN, FNP-C

Lindsey Criss, AGACNP-BC

Mousumi Dey, PA-C

Misty Lance, RN, FNP-C

Tiffany Randle, RN, MSM, FNP-C

Ashley Roberts, RN, FNP-C

Shelli Tracy, FNP-C

Kayla Williamson, ACNPC-AG

Nephrology

AMARILLO NEPHROLOGY ASSOCIATES, PA

Daniel Hendrick, MD

CV Sreenivasan, MD

Esther Iheukwumere, MD

Adan Gonzalez, MD

1805 Point West Pkwy STE 100

Amarillo, TX 79106

(806) 418-8620 • Fax: (806) 418-8606

amarillonephrology.com

Neurosurgery

S.W. NEURO SCIENCE & SPINE CENTER

Bret D. Errington, MD

Board Certified by the American Board of Neurological Surgery - Cranial and Spinal Neurosurgery

J. Brett Gentry, MD

Neurological & Spinal Surgery Board Certified - American Board of Neurological Surgery

Wayne "CP" Paullus III, MD

Neurological & Spinal Surgery Board Certified - American Board of Neurological Surgery

705 Quail Creek Dr.

Amarillo, TX 79124

(806) 353-6400

SPINE & ORTHOPEDIC SURGERY

Michael O. LaGrone, M.D., P.A.

1600 Coulter St # B,

Amarillo, TX 79106

William M. Banister, MD

1901 Medi Park, C-10

Amarillo, TX 79106

(806) 279-1183 • Fax: (806) 350-7693

Most Insurance Accepted Including Medicare. Diplomat - the American Board of Neurological Surgery

PROFESSIONAL CARDS

Obstetrics & Gynecology

PANHANDLE OBSTETRICS & GYNECOLOGY
Dudley E. Freeman, MD
Gregory A. May, MD
Cullen Hopkins, MD
Jamie Wilkerson, MD
Sarah Bergeron, RNC, WHNP
Ashley Mullin, RN, FNF
Brenna Payne, RNC, WHNP
7620 Wallace Blvd.
Amarillo, TX 79124
(806) 359-5468 • Fax (806) 358-1162

WOMEN'S HEALTHCARE ASSOCIATES, P.L.L.C.
Carin C. Appel, MD
Kathryn N. Bonds, MD
David L. Chastain, MD
Jill A. Gulizia, MD
Christina M. Huseman, MD
Amanda Murdock, MD
Keelie R. Tucker, MD
Jennifer Graham, APRN, NP-C
Maria Campbell, APRN, CNP
1301 Coulter, Suite 300
Amarillo, TX 79106
(806) 355-6330 • Fax (806) 351-0950
whaonline.ne

POTTER-RANDALL COUNTY MEDICAL SOCIETY
Founded 1903

Obstetrics & Gynecology

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Amarillo Campus
1400 Coulter • 414-9650
www.ttuhsc.edu/amarillo/som/ob

Obstetrics & Gynecology
Teresa E. Baker, MD
George Barnett, MD
Stephen J. Griffin, MD
Brandon Haney, MD
Tanay Patel, MD
David Vineyard, JD, MD
Tosha Brandon, APRN, FNP-C
Renee Gray, MSN, WHNP-BC
Chad Winchester, MSN, WHNP-BC

Gynecologic Surgery
Teresa E. Baker, MD
George Barnett, MD
Stephen J. Griffin, MD
Robert P. Kauffman, MD
David Vineyard, JD, MD

Maternal Fetal Medicine
Obstetric Ultrasound
Thomas J. Byrne, MD, FACOG

Menopausal Management
Robert P. Kauffman, MD

Reproductive Medicine & Infertility
Pediatric Gynecology
Gynecologic Ultrasound
Robert P. Kauffman, MD

Genetic Counseling
Ramona Martinez, RN

Canyon Campus
3404 4th Ave., Suite D. • 414-9944
www.ttuhsc.edu/canyon/

Obstetrics & Gynecology
Tosha Brandon, APRN, FNP-C
Brenna Melugin, APRN, FNP-BC

Ophthalmology

PANHANDLE EYE GROUP, L.L.P.
Specializing in the Diseases & Surgery of the Eye
www.paneye.com

Amber Dobler-Dixon, MD
Glaucoma Laser & Surgery
Amarillo: 7411 Wallace Blvd.
(806) 350-1100 • (866) 567-0948

Robert E. Gerald, MD
Comprehensive Ophthalmology
7308 Fleming Ave.
Amarillo, TX 79106
(806) 359-7603 • (800) 283-8018

John W. Klein, MD
Comprehensive Ophthalmology, Cataract Surgery
13 Care Circle
Amarillo, TX 79124
(806) 353-2323 • Fax (806) 351-2323
(888) 393-7488

C. Alan McCarty, MD
Comprehensive Ophthalmology, Cataract Surgery
7411 Wallace Blvd.
Amarillo, TX 79106
(806) 351-1177 • (800) 782-6393

Crystal Truong, MD
Comprehensive Ophthalmologist and Cataract Surgeon

W. John W. Murrell, MD
Comprehensive Ophthalmology, Cataract & Oculoplastic Reconstructive Eyelid Surgery
7411 Wallace Blvd.
Amarillo, TX 79106
(806) 351-1177 • (800) 782-6393

Vish Reddy, MD
Comprehensive Ophthalmologist and Cataract Surgeon

PROFESSIONAL CARDS

Sloan W. Rush, MD
Cornea, Cataract & Refractive Surgery
7625 Fleming Ave.
Amarillo, TX 79106
(806) 353-0125 • (800) 225-3937

J. Edward Ysasaga, MD
Antonio V. Aragon, II, MD
Ryan Rush, MD
Jennifer Gallagher, MD
Diseases & Surgery of the Retina, Vitreous, & Macula
7411 Wallace Blvd.
Amarillo, TX 79106
(806) 351-1870 • (888) 404-1870

Orthopaedic Surgery

James R. Parker, MD
Board Certified
Specializing in Sports Medicine & Total Joint Replacement
7000 W. 9th Ave.
Amarillo, TX 79106
(806) 350-2663 • Fax (806) 350-2664

Otolaryngology (ENT)

PANHANDLE EAR, NOSE & THROAT
3501 South Soncy Road, Ste. 140
Amarillo, TX 79119-6405
(806) 355-5625 Fax (806) 352-2245
Stacie Morgan, MD
Amber Price, MD

POTTER-RANDALL COUNTY MEDICAL SOCIETY
Founded 1903

Pain Management / Treatment

ADVANCED PAIN CARE
Thomas E. Merriman, MD
1901 Medi Park Place
Suite 2002
Amarillo, TX 79106
(806) 353-4699 • Fax (806) 353-4551
Victor M. Taylor, MD
7901 SW 34th
(806) 350-7918 • Fax (806) 418-8982
1901 Medi-Park Dr. Bldg. C, Ste. 2
Amarillo, TX 79106

INTERVENTIONAL PAIN MANAGEMENT
Brian S. Murrell , MD
Board Certified in Pain Management & Anesthesiology
4104 SW 33rd Ave., Suite 200
Amarillo, TX 79109
(806) 803-9671 • Fax (806) 803-9674

Plastic & Reconstructive Surgery

Patrick Proffer, MD, F.A.C.S.
Reconstructive Surgery of Breast & Body
Board Certified by The American Board of Plastic Surgery
Member of the American Society of Plastic Surgery
1611 Wallace
(806) 352-1185 • Fax (806) 352-4987
www.drproffer.com

Radiology

HIGH PLAINS RADIOLOGICAL ASSOCIATION
1901 Medi Park, Suite 2050
Amarillo, TX 79106
(806) 355-3352 • Fax (806) 355-5367
Gage Agers, DO
John Andrew, MD
April Bailey, MD
Charles Brooks, MD
Richard Campin, MD
Crandon Clark, MD
Stanley Cook, MD
Tully J. Currie, MD
Michael Daniel, MD
William Davis, MD
Aaron Elliott, MD
Paul Hakim, MD
Michael Hall, MD
Richard Khu, MD
Megha Kureti, MD
Luke Lennard, MD
Cameron Manchester, MD
Paul Pan, MD
William Parker, MD
Robert Pinkston, MD
Martin Uszynski, MD
Lawrence Zarian, MD

Rheumatology

Janet Schwartzenberg, MD
Board Certified in Rheumatology
1215 S. Coulter Suite 302
Amarillo, TX 79106
(806) 350-2384 • Fax (806) 677-7617

Surgery

AMARILLO SURGICAL GROUP
6 Medical Dr. • Amarillo, Texas 79106
(806) 212-6604 • Fax (806) 212-0355
David Langley, MD
General / Vascular Surgery
Shane Holloway, MD
Surgical Oncology / General Surgery
Chance Irwin, MD
General / Vascular Surgery
Sam Kirkendall, MD
General Surgery
Chris Kolze, MD
General Surgery
Erica Wheat, MD
General Surgery/Breast Surgery
Travis Vowels, MD
General Surgery/VascularSurgery

PANHANDLE SURGICAL GROUP
1301 S. Coulter, Suite 413
Amarillo, Texas 79106
(806) 677-7952 • Fax (806) 353-6081
Bleu Schniederjan, MD
Bo Neichoy, MD
David McNeir, MD

Spotlight on New, Honorary & Life Members

NEW MEMBERS

Donna Ayala, MD
Alexis Borden, DO
Nayeli M. Cabrera, DO
Ryan T. Corjay, DO
Sayyidda Mohammed, MD
Adrian Mola De La Rosa, MD
Allison E. Ogle, DO
Rachel Walker, MD

HONORARY MEMBERS

Charles Kerr Hendrick, MD

LIFE MEMBERS

Masoud A. Alzeerah, MD
Leora Pate Andrew, MD
Robert Merrill Ball, MD
Bill Scott Barnhill, MD
Richard Harris Bechtol, MD
Howard Lysle Berg, MD
Gayle Holberg Bickers, MD
Bill Frank Byrd, MD
Turner M. Caldwell, III, MD
Dennis Lane Canon, MD
G. Arturo Carrillo, MD
David G. Carruth, MD
Rhodesia A. Castillo, MD
Harry J. Cazzola, MD
Ronald Lowell Chaffin, MD
Pamela Ann Chandler, MD
Jeffrey Donald Cone, MD
John L. Coscia, Jr., MD
R. H. Cox, Jr., MD
John Lewis David, Jr., MD
Lon Miles Davis, MD
Pablo Rafael Diaz-Esquivel, MD
Leonard Edwin Dodson, MD
Thomas D. Easley, MD
William Robert East, MD
Richard Harold Franklin, MD
Rolf W O Habersang, MD
James Edward Hamous, MD
J. Franklin Howell, Jr., MD
Douglass Young Hyde, MD
Robert Earl Jackson, III, MD
Richard Lee Jennings, MD
Thomas L. Johnson, MD
John C. Kelleher, Jr., MD
Richard Glenn Kibbey, III, MD
Michael Alan Lary, MD
Jake Crabtree Lennard, MD
Nazre Mawla, MD
Richard F. McKay, MD
John Perry McKinley, MD
Clyde Allen Meeks, MD
Rod M. Nugent, Jr., MD
Robert W. Paige, MD
Virgil A. Pate, III, MD
Mahendra J. Patel, MD
Vinodkumar Somabhai Patel, MD
Phillip O. Periman, MD
Gary Robert Polk, MD
Randal Earl Posey, MD
Brian Thomas Pruitt, MD
Harvey Mac Richey, III, DO
Miguel A. Rios, MD
Pablo S. Rodriguez-Vinas, MD
Matthew C. Scalapino, MD
Martin L. Schneider, MD
Shu Shum, MD
Earl Clifton Smith, MD
Howard Wayne Smith, MD
Rush Alexander Snyder, Jr., MD
Kent K. Sorajja, MD
James S. Spurlock, MD
Margaret E. Thurmond-Anderle, MD
Paul E. Tullar, Jr., MD
Robert Steven Urban, MD, MACP
Aniceta Veloso Velky, MD
Bruce L. Weinberger, MD
Michael D. Williams, MD
Geoffrey Lee Wright, MD

When “it’s complicated” isn’t an option.

You’ve dedicated your life to healing others. But who’s there to protect you if things go sideways? For more than 45 years, TMLT has been the medical malpractice partner you can count on. No mixed signals. No ghosting.

TMLT
Texas Medical Liability Trust

We offer:

- a strong claim defense
- customized risk management
- discounts, dividends, rewards
- policies with coverage for disciplinary actions and cyber events

TMLT — the no-drama partner you deserve. Discover the difference today.

tmlt.org | 800-580-8658

CliffNotes

Insurance Made Simple

Professional Liability
Commercial
Personal
Employee Benefits

Get it All with One Call

NCW
AN ALERA GROUP COMPANY

Cliff Craig, CPCU, CIC
(806) 376-6301 Cell: (806) 672-9534
cliff.craig@ncwriskmanagement.com

PANHANDLE HEALTH
A QUARTERLY PUBLICATION OF THE POTTER-RANDALL COUNTY MEDICAL SOCIETY

1721 HAGY
AMARILLO, TEXAS 79106

PRESORTED
STANDARD
US POSTAGE
PAID
AMARILLO, TX
PERMIT NO. 247