

F P C A L I N T

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YOUTH, YOUNG ADULTS, & MENTAL HEALTH

V. 26



HEALTHY BODY ↔ HEALTHY MIND

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INTRODUCTION

HEALTHY BODY ↔ HEALTHY MIND



This issue of *Focal Point* focuses on the recognition that mental health and physical health should not be considered separately. The integration of physical and mental health is sometimes referred to as holistic health. Holistic health is an approach to well-being that recognizes the inter-relationships among who we are, how we are feeling inside and out, and what we are experiencing in the world around us.

The idea of a link between a healthy mind and a healthy body is far from new. Thousands of years ago, the Chinese developed a system of medicine that is based on the yin/yang – the idea that life is lived best when in balance. Food and exercise, work and sleep, stress and play – all help us thrive, but only if we experience them in proper balance. Similarly, some tribal cultures are guided by the Relational World View. This model states that good health only exists when things are in balance; the four quadrants of ourselves – our mind, body, context, and spirit – all need to be in harmony in order to achieve well-being. The trick is, by simply living our day-to-day experiences, our lives are in a constant state of change. We are not the same people now that we were when we first woke up. Our levels of rest, stress, and nutrition are constantly shifting. Whether we realize it or not, we are continually altering ourselves to remain in balance so that we feel more grounded and whole. Sometimes, however, we are not able to maintain balance among

the quadrants, and we feel out of sorts, even lost.¹ That's OK. With time and support, we can find our way back into well-being.

Thus, this issue of *Focal Point* is dedicated to exploring how the mind and body impact each other, and how we can strive to achieve good balance within ourselves. Some articles in this issue address how a healthy body can improve mental health. One written by Casadi Marino highlights how mental health can benefit from moving the body and getting in touch with the senses through yoga. Another article written by Celeste Moser emphasizes the importance of eating right and getting proper nutrition in order to improve mental health. A Data Trends research review summarizes how much exercise is enough to curb depression, and another article written by Belinda Garner and colleagues describes a program in Australia that uses massage therapy in residential treatment as a means to reduce stress.

Sometimes, however, one's mental health can interfere with a desire to maintain a healthy body and/or lifestyle. Two articles on medication used by persons with schizophrenia – one from the medical perspective written by Victor Vieweg and Mehrul Hasnain, and another from a counselor's perspective with insight from a young adult client – underscore the seriousness of weight gain as a side effect to medication treatment. Thankfully, some solutions are provided to help navigate the difficult balance between

medication use and maintaining a healthy body.

Finally, some articles address overcoming the tensions between the mind and body. One article written by Robert Roeser describes how young adults can benefit from mindfulness, the practice of bringing one's attention to the present experience to reduce stress and promote a positive outlook on life. Additionally, three youth describe their struggles to maintain both positive physical and mental health – and how these two goals are consistently intertwined. While their stories reveal challenges, they also offer hope.

Achieving balanced health is a process, not an outcome. The goal of holistic health is simply to function at our very best level possible.² There will always be times in a person's life that are healthier than other times. If you are feeling healthy while you are reading this, that's great. If you are experiencing a time when your health is not ideal, hopefully some of these articles will support your journey toward an improved sense of well-being in both body and mind.

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Yoga for Youth in Trauma Recovery



I am in recovery from bipolar disorder and substance abuse. I have a history of trauma and was homeless for periods during my transition age years. I have worked in the mental health field for eighteen years and am a National Yoga Alliance registered yoga teacher. Yoga was part of my recovery and is now part of my wellness plan. In this brief article, I will introduce the practice of yoga and review some of the available literature related to its use by youth who may be classified as at risk or have trauma histories. In addition, I will offer some guidance regarding pursuing a yoga practice.

INTRODUCTION TO YOGA

Yoga is a mind-body practice believed to have originated thousands of years ago in India. The term “yoga” translates from Sanskrit as “to unite.” Its practices include both physical and mental techniques for calming the nervous system; developing self-awareness and grounding; and building flexibility, balance, and strength.¹ Yoga classes invite individuals to check in with their bodies and feelings, notice any sensations or experiences, direct attention, and return again and again to the breath which is always present. Movements in yoga may be coordinated with the breath and emphasis is placed on full awareness of moment-to-moment experience.

By attending to immediate experience, one may become aware of sensations, thoughts, and emotions that are present. In a yoga class, participants are invited to “direct attention,” or simply observe experience without judging or

trying to change what is in the moment. A yoga instructor might begin a session by saying something resembling the following:

Place your awareness at the belly and begin to notice your breath... Notice the rise with each inhale and the fall with each exhale... Do not try to change your breathing... Just attend to the breath... Continue to breathe... The breath coming in, the breath going out... As you breathe, sensations, thoughts, or emotions may arise... Simply allow the sensation, thought, or emotion... Do not focus on it, do not push it away... Simply notice it without judgment and return to your breathing... Keep breathing... The breath coming in, and the breath going out... As you continue to breathe, you may notice another thought or feeling... You might say to yourself, “That is a thought,” or “That is a feeling,” and return to your breathing... Breathing slowly, breathing deeply... The breath always present... Whatever arises, arises... Breathe in and breathe out... Return your attention again and again to the breath.

LITERATURE REVIEW

Studies that evaluate the benefits of yoga for youth are limited. One systematic review of the clinical literature on yoga and youth concluded that, while controlled studies appeared to provide evidence of yoga benefits for mental health and behavioral issues, methodological issues prevented strong conclusions.² Another review of the literature concluded that the development of self-regulation abilities is a key component of the effectiveness of yoga for

youth. Yoga practice helps youth develop skills to regulate and calm their bodies and emotions.³ Two notable studies found statistically significant effects of yoga on participants' perceptions of well-being, positive self-regard, and emotional regulation skills compared to those in control groups. Improvements in such perceptions and skills may reduce the risks of developing symptoms of depression and anxiety. Both studies were pilots of school-based yoga programs being evaluated as prevention strategies.^{4,5}

YOGA FOR TREATING TRAUMA

The practice of yoga for treating trauma issues is based on the premise that trauma affects the body, mind, and spirit and that all must be engaged in the healing process. Yoga is a technique for addressing trauma holistically and for developing a compassionate relationship with the body.⁶

The Trauma Center at Justice Resource Institute in Massachusetts has adapted a form of yoga for traumatized youth in residential treatment and has facilitated groups in three programs since 2003. A central adaptation consists of instruction to participants that they do not have to do any postures that they do not want to do. The teachers believe that an important aspect of trauma recovery is the exercise of choice to reclaim ownership of one's experience.⁷

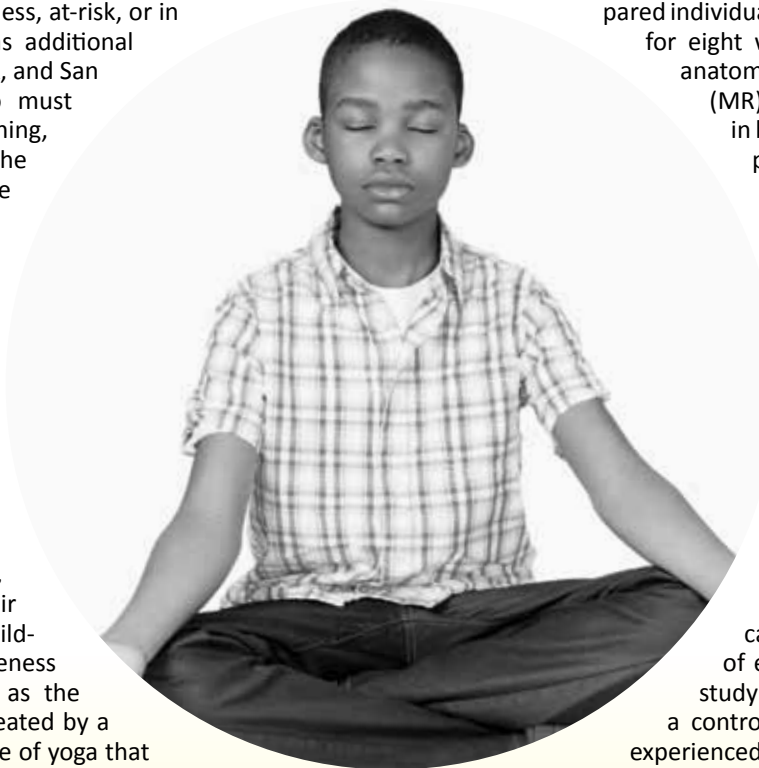
Street Yoga is a Portland, Oregon-based organization whose volunteer teachers lead yoga classes for youth who are homeless, at-risk, or in shelters. Street Yoga has additional sites in Seattle, New York, and San Diego. Instructors, who must go through a special training, are told that most of the individuals served have a history of trauma and have trauma memories or effects stored in their bodies. The philosophy behind Street Yoga is that people need to be at home in their bodies in order to live well and that through a yoga practice, youth can create quiet, safe places to experience their bodies, minds, and feelings.⁸ Their approach emphasizes building strength and assertiveness with a sense of safety as the first priority. Safety is created by a slow and mindful practice of yoga that allows practitioners to become aware of their physiological experiences and regain a sense of control over their bodies. Participants are urged to exercise choice and regard directions provided in class as suggestions that they may choose to decline. In one outcome study of a class for female youth who had survived sexual trauma, 85% of participants reported that yoga had led them to feel more energetic, happier, more focused, and

less nervous and tense; 85% also agreed with statements that yoga helped them learn to feel safe in their bodies.⁹

The National Child Traumatic Stress Network (NCTSN), funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), consists of 69 sites in which researchers and clinicians work on trauma-specific Evidence Based Treatments (EBTs) and promising practices. The NCTSN has identified core components of complex trauma intervention that include restoring a sense of safety, enhancing self-regulation, and developing ability to direct one's attention.¹⁰ A focus group of NCTSN clinicians spoke to the need to engage in pretreatment work or stabilization of youth with trauma histories before administering EBTs. Most pretreatment strategies named by these clinicians involved building self-regulation skills through such practices as yoga.¹¹

THE SCIENCE OF YOGA

Three recent studies have explored the neurochemistry of yoga practice. One assigned individuals to one of three experimental conditions: yoga, dance, or a control group of no intervention. The researchers then measured changes in salivary cortisol levels (high levels of the hormone cortisol are associated with stress and anxiety). Only in the yoga intervention were participants found to have significantly decreased cortisol levels.¹² In a study that compared individuals who participated in yoga for eight weeks to a control group, anatomical magnetic resonance (MR) images showed increases in brain gray matter in the hippocampus and cerebellum, brain regions involved in memory and emotional regulation. Depression, anxiety, and posttraumatic stress disorder are among the mental health conditions that are associated with decreased density or volume of the hippocampus. While the cerebellum is best known for functions related to coordination and motor control, it plays a significant role in the regulation of emotion as well.¹³ Another study found that, compared to a control group, yoga participants experienced a statistically significant increase in brain GABA levels after each one hour session of yoga (lower GABA levels are associated with mood and anxiety disorders).¹⁴ These studies are providing objective documentation of what yoga practitioners have been reporting for centuries: yoga leads to beneficial changes. The science appears to be catching up to the wisdom in the yoga communities.



ADVICE IN PURSUING A YOGA PRACTICE

Yoga practice can be challenging, and full benefits require a disciplined practice. It took me years to develop a regular practice, which continues to take effort to maintain. When I have been away from my practice for too long, I actually find myself craving yoga. This craving speaks to a need that I should meet and is vastly different than past cravings that were destructive. I no longer identify with the difficulties in my past. Yoga has enabled me to respect myself and make better decisions. If you take on a yoga practice, you may find that you struggle at times in certain poses and with emotions that may be stored in your body. When this happens, I advise you to think of someone you highly respect. You might choose a family member, teacher, or community or spiritual leader. Ask yourself what you would say to such a person and then say it to yourself. You might say, "I think so well of you for all that you are, what you have done, and what you will do. You are an inspiration and a guide. You are a lovely person. Don't change, just continue. Breathe here. Breathe again. Namaste.*"

**Namaste is a Sanskrit term that translates as, "The light within me bows to the light within you."*

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EZORIA'S STORY

I am just a few months shy of seventeen years of age and while life hasn't been so bad, it hasn't always been on my side either. I was born to the big city of Los Angeles, California: bright lights, movie stars, so much opportunity, and so much identity in just this little part of this huge world. I never thought I'd feel so lost, alone and completely oblivious to who I was.

Growing up started out simple; both my mom and dad worked. We had a house, cars, food: all the necessities of living. We were the typical middle class family. But my dad's anger became out of control. He would go on a rampage for no apparent reason. Things that would make him angry would be physically taken out on my mom at home. He was very controlling and wanted everything his way, until my mom got tired of it and we moved to the "dirty south": Jackson, Mississippi, a place where we were surrounded by family and friends and where I developed the famous southern drawl. For a while we stayed with my grandparents and from what I understand everything was fine, but being a child it wasn't quite possible for me to understand everything completely.

Shortly after moving in with my grandparents, my mom bought a house and finally we were in our own space, just my mom and I, but a new house came with new responsibilities. With my mom being a single mom and all, we struggled a lot and I couldn't help but think that it was my fault. I couldn't be the daughter my mom wanted me to be; I couldn't be as social or make friends like she wanted. I was always the quiet one, trying not to be noticed, but that didn't keep me from being teased by kids my own age. I was very tall and towered over everyone in my grade and that was not accepted.

At that point in time I was in a very vulnerable state. I was an only child so it got very lonely at times. I really depended on my cousins to keep me company. But this one particular cousin had another agenda in mind and I was sexually abused by him at age six. I was so shaken up but I couldn't tell anyone. I didn't know how my mom would react or what would happen to him.

Fast forwarding to eighth grade; middle school had already been hard for me. It was a new adjustment and now I was getting ready for high school. One day I exploded! Everything that I hid, everything that I suppressed came out, not verbally though, but on my arms. I had heard about self injury but I never really thought about it until then, and at that very moment cutting became my life. When I was angry I cut, when I was lost inside my thoughts, I cut, when I was depressed, I cut, when I was frustrated, no problem, I cut. It was a way of life, an art; it was my best friend. It knew when I needed it, it was there whenever I wanted it, but it had a darker side to it. It hurt my loved ones to see me like this. That was the last thing I wanted to do. I really didn't care what I did to myself; I just didn't want to hurt anyone else, especially my mom. That's why I hid my cutting.

My friends didn't understand why I cut, and they thought I needed help. I begged to differ. They dragged me to the counselors, who called my mom. She was so angry at me but I couldn't understand why. I kind of didn't care as long as I could cut after she was done talking (more like yelling). After she was finally done, she asked for all my tools; honestly I feel like you can never take all of a cutter's tools. I found it kind of funny that she actually thought that I was going to give her everything.

A few weeks after my secret was out, I was admitted into an outpatient program where I was diagnosed with depression. It was so great; I made friends and had someone to talk to, but I wasn't ready to give up cutting. Then I developed an eating disorder. It wasn't a substitute for

cutting; it was more like an addition to harm myself even more so. After six months of treatment I was discharged. From there I was admitted into another therapy program but after a few months of being there the staff suggested more intensive care. So then it was off to inpatient. There were people there that were just like me, people I could relate to and vice-versa. But when I said I needed help they rushed to get me meds; when I wouldn't eat they isolated me from the rest of the group; they threatened to put me in inpatient long-term, which made me not want to talk to them. It was horrible. And then the meds made me gain so much weight and that didn't help my eating disorder. I was still self-harming, but I guess I showed improvement because I was discharged within 15 days.

My mom thought everything was good – but I knew better. I had gotten better at hiding the scars and plus it was winter so that made it easier to hide my body under clothes. The clothes and climate didn't keep my doctor from seeing my scars though. She told my mom that I needed to be back in therapy. At that point I was done with everything – the therapy, the meds; I just wanted to keep harming myself and I didn't want anyone in my way. I told the therapist what they wanted to hear and I was discharged. For a while, it was the same ol' thing; cutting every day, purging everything I ate. It wasn't until May, 2010 that I met my mentor who really helped me and I started trying to better myself. She accepted me for who I was; she was always there for me, and not like the others who left when they thought I was alright. She never told me to stop, which I think is very important when dealing with a self-injurer, because most of the reason that I cut was because I mistakenly thought it gave me more control over my life. She loved me for me and all the baggage that I came with. I began to value my life, which was a major change considering that I didn't care at all before. I began to "try." I no longer sat in my sorrow. I tried to better myself because at the end of the day I am all I have. Yes, my mentor was there, and my mom and family, but they couldn't take away the pain that I wanted so desperately to go away. I had my own mind and I had to take the first step and try for my own good. And although sometimes I slip up and resort to old ways, I know better now and so I do better.

AUTHOR

Ezoria Aisuan is a 17-year-old senior with plans to attend The University of Southern Mississippi. Her goal for the future is to become an adolescent psychologist.

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PROJECTS AND STAFF:

CAREER VISIONS tests an approach to career planning and employment for young adults, ages 21-25, who are receiving SSE or extended special education services.

Jo-Ann Sowers, Principal Investigator; Jared Tormohlen, Project Manager; Casadi Marino, Graduate Research Assistant.

BETTER FUTURES tests a comprehensive intervention to assist young people in foster care with serious mental health conditions to prepare to participate in post-secondary education.

Sarah Geenan and Laurie Powers, Co-Principal Investigators; Pauline Jivanjee, Project Advisor; Lee Ann Phillips, Project Manager; Adrienne Croskey, Graduate Research Assistant; Stephanie Raffaele and Isha McNeely, Student Research Assistants.

ACHIEVE MY PLAN studies the efficacy of an intervention to increase young people's participation and engagement in their mental health treatment planning teams, and to build organizational capacity to support youth engagement.

Janet S. Walker and Laurie Powers, Co-Principal Investigators; Celeste Moser, Project Coordinator; Amber Athenien, Jared Best, Precious Bodel, Mauri Castle, Katrina Friedrich, and Celina Kishna, Research Interns.

TRANSITION POLICY CONSORTIUM will develop an inventory that assesses the level of community support for transition services with a specific emphasis on measuring collaboration and continuity of care between the child and adult mental health systems.

Nancy Koroloff and Janet Walker: Co-Principal Investigators; Martha McCormack, Graduate Research Assistant.

FINDING OUR WAY furthers the development of a culturally specific self-assessment tool for American Indian/Alaskan Native young people. Developed for youth ages 13-19, the tool will be modified to include issues relevant to transition.

Barbara Friesen and Terry Cross, Co-Principal Investigators; L. Kris Gowen and Pauline Jivanjee, Researchers; Abby Bandurraga, Graduate Research Assistant.

EHEALTH LITERACY is a developmental project that will contribute to a knowledge base about the ways youth and young adults use the internet to find information about mental health care, conditions, symptoms, or medications. The information will be used to develop and test an eHealth literacy curriculum.

L. Kris Gowen, Principal Investigator.

RECOVERY OUTCOMES is a secondary analysis of large national data sets. This project will analyze data from the System of Care National Evaluation related to young people's recovery outcomes.

Eileen Brennan, Principal Investigator.

MEDIATORS OF STIGMATIZATION will analyze data from nationally representative samples of youth and young adults, and use this information to identify potentially effective anti-stigmatization strategies.

Janet Walker, Principal Investigator.

TRANSITION TRAINING COLLABORATIVE will develop graduate and undergraduate course modules appropriate for individuals who plan to work with transition-aged youth, as well as modules for in-service delivery.

Eileen Brennan and Pauline Jivanjee, Co-Principal Investigators; Claudia Sellmaier, Graduate Research Assistant.

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Mindfulness as Self-Care Strategy for Emerging Adults



The transitional years from adolescence to adulthood are filled with possibility and uncertainty, optimism and stress. Research has shown that the process of identity development that begins with puberty and ends with “becoming adult” extends beyond adolescence into and through an individual’s twenties in developed nations like the United States today. The development of young people during these years, which is sometimes referred to as the period of “Emerging Adulthood,” has been described as a period of instability: young people move often and experiment with different career options and romantic partners, as well as different ways to manage the responsibilities and life stresses associated with becoming adult.¹ Emerging adulthood can be one of the healthiest physical times in the lifecourse, and we know that the brain, especially the higher mental functions such as impulse control, planning, perspective taking, and problem-solving associated with the prefrontal cortex (PFC), are still developing in profound ways during these years.²

THE MILLENNIAL GENERATION

This current generation of young people (born between 1980 and 1999), sometimes called the Millennial Generation, is also rather unique from prior ones given the wide-ranging economic, technological and social changes within which they have come of age. Evidence shows that Millennials have grown up being profoundly affected by historical events such as 9/11; the wars in Iraq and Afghanistan; large-scale changes such as the internet and the advent of

social media; changes in marriage patterns; and changes in work due to the economic recession.³ Young people today are history’s first “always connected” generation, and many report sleeping at night with their cell phones next to them to “stay connected” to their virtual worlds.⁴ Young people also experience less pressure to conform to perceived adult roles such as marriage and parenthood as quickly, due to changing gender expectations, an increased value placed on personal freedom, and different economic needs than previous generations; and they tend to move out of their parents’ homes, and in with romantic partners, and back home again, before marriage.^{1,4}

FEELING “IN-BETWEEN”

Not surprisingly, the existential feeling of these years, as described by young people themselves, is one of being “in-between”: no longer children or adolescents, but not yet fully identified with adult roles and responsibilities regarding a career path, financial independence, the formation of stable romantic partnerships, marriage, and parenthood.¹ Research suggests that this feeling of being “in-between” among young people, and the normative life changes associated with it, can engender not only a sense of optimism and possibility, but also uncertainty, fear, anxiety and depression, and recourse to alcohol and drugs as a stress management strategy.⁵ This is especially true for some young adults as they leave their parents’ homes and the social support and social control that such homes often afford. Managing the identity concerns of this period, when so much in the world is also changing rapidly as well, has

given rise to a concern about both the physical and mental health of young people during the transition to adulthood today.⁶

ATTENDING TO THE BODY-MIND

In an effort to provide young people with a new set of mindsets and skillsets that (a) foster their healthy identity development; (b) help them to reduce stress and cultivate well-being; and (c) capitalize on the plasticity of the brain (especially the prefrontal cortex, or PFC) to environmental inputs during these years, a new field of science around mindfulness training – contemplative science and education – has developed.⁷ Contemplative science, broadly construed, is a recently emerging, trans-disciplinary effort by scientists, philosophers, and meditation practitioners from mainly Buddhist contemplative traditions to derive a new understanding of the mind/body system and its potential for transformation in the directions of health and well-being through engagement in contemplative practices like mindfulness, meditation and yoga.⁸

Contemplative science is grounded in the concept of neuroplasticity, the notion that the brain is designed to change in response to experience and training of various kinds.⁹ Similar to work on the development of expertise, contemplative practices such as meditation and yoga are conceptualized as specialized forms of mental and physical training that, when engaged in for extended periods of time under the guidance of more-expert others, lead to the development of particular skills and dispositions at the psychological and neural levels of analysis.⁸ Research evidence is beginning to document how sustained engagement with contemplative practices among adults can foster the development of mindful awareness and focused attention; healthy emotion regulation and well-being; empathy and compassion for others; and improved physical health due to decreased emotional reactivity.⁸

At the center of this new field of science and related set of human services is an ancient mental training technique first developed by Buddha called “mindfulness” of somatic and mental experience. Kabat-Zinn¹⁰ defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (p.4). As such, mindfulness can be understood as “a threefold attentional skillset,” including: (a) the ability to sustain attention intentionally on present moment experience; (b) the ability to perceive the present moment in a calm and clear manner; and (c) the willingness to experience each moment just as it is, without emotional reactions or conceptual elaborations or judgments.¹¹

Mindfulness is traditionally taught through structured contemplative practices in which attention is focused intentionally and non-judgmentally on present-moment somatic and mental experience in the form of bodily sensations, feelings, mental images, and thoughts.¹¹ Such practices can include body scans, in which participants focus their attention progressively throughout the body to bring awareness to somatic experience; meditation on the breath to develop focused attention; and meditation on present-moment experience to bring awareness to the body, feelings, images, and thoughts and to develop insight

and a non-reactive, non-judgmental orientation to all facets of present-moment experience.¹²

Mindfulness meditation heightens awareness of the mind-body as an organic whole that can be looked to with openness and curiosity for feedback about one’s current mental state under given conditions. This feedback, in turn, once one is aware of it, can be used to make conscious and intentional, rather than non-conscious and reactive, choices about how to behave in a given situation. Mindfulness training involves (a) learning basic skills such as relaxing through breathing and a one-pointed focus on the breath or some other object (e.g., external sounds) that create physiological rest in the body; and (b) “noting and labeling” of mental and somatic experiences – a process of identifying the nature of experience (e.g., feeling, sensation, thought, image) without reacting to or conceptually elaborating on this experience. Noting and labeling is known to confer psychological distance between highly arousing cognitive, emotional and physical experiences and our reactions to them. This psychological distance, which really amounts to time, allows one to respond volitionally rather than to react emotionally to what is occurring in the present moment.

In essence, mindfulness increases awareness of somatic and mental experience, and uses that heightened awareness in the service of stress reduction, self-knowledge, and the self-regulation of behavior. The purposes of engaging in mindfulness practice are especially well-suited to the kinds of developmental challenges and opportunities confronting young people in that mindfulness practices help to (a) alleviate suffering due to unpleasant physical and emotional experiences; (b) enhance well-being physically and emotionally in a non-toxic way; (c) facilitate self-knowledge and self-clarification; (d) regulate behavior in the service of accomplishing desired long-term life goals; and (e) foster a spirit of compassion and service to others.¹¹

FOUR STEPS TO TENDING THE BODY-MIND

In a course I teach at Portland State University for undergraduates, we rely on a basic four-step primer in mindfulness practice. These four steps are based on basic mindfulness teachings and research findings:

(1) Just Breathe (2) Be Here Now (3) Let Go (4) Begin Again

The first step in mindfulness training, “Just Breathe,” is about stopping, breathing, and calming down before deciding what to do. Research shows that stopping and taking a few deep breaths, with a slight elongation of the out-breath, is a trustworthy way of calming our fight-flight arousal system (e.g., amygdala) and clearing our minds (e.g., PFC) so we can think more clearly when stressed out. This slows down emotionally reactive behavior. A singular focus on natural flow of the in-breath and the out-breath is a key form of mindfulness training used to develop “one-pointed, focused attention.” The practice of following the breath coming in and going out at its natural pace is an excellent place to begin the practice of mindfulness.¹²

The second step is “Be Here Now.” By breathing, and relaxing the body and the mind, we can enter into the present moment and exist therein – instead of ruminat-

ing on the past or planning for the future always, being in the present moment with whatever is happening turns out to be an important means of self-awareness and self-regulation. We learn not to become over-engaged with experience or to suppress or avoid certain experiences. We become more aware of our body sensations, our senses, our feelings, our thoughts, and the imagery in our minds. It's simple, but not easy to practice.¹² The importance of being here now, in the present, cannot be over-estimated given that here, now, is where our life is unfolding, forever and always. It is here, now, that we can make choices that make a difference in what happens next. Using the breath as our guide and anchor, we can always find our way back to the now and ask ourselves, what is happening right now and how might I respond to this specific moment in my life after I calm down?

The third step is to "Let Go." One of the insights of mindfulness meditators is that much of our stress is caused by unnecessary worry, rumination and anxiety.¹² There is a beautiful teaching by a Buddhist teacher called Shantidevi who wrote: "If a problem can be solved, why be unhappy? And if it cannot be solved, what is the use of being unhappy?" We might ask ourselves in any moment of upset or stress, after breathing, what kinds of expectations, desires, and fears might I be able to let go of in this moment to

to use that awareness in compassionate ways for growth of self and one's relationships is the path of mindfulness. The goal in practicing mindfulness, no matter what happens, is to continually "begin again" without self-judgments or emotional reactions. In this way, over time, expertise in understanding, accepting, and regulating our own minds and bodies results. As the great poet Rumi put it:

*Come, come, whoever you are.
Wanderer, worshiper, lover of leaving.
It doesn't matter.
Ours is not a caravan of despair.
Come, even if you have broken your
vows a thousand times.
Come yet again, come, come.*

CONCLUSIONS

The transitional years from adolescence to adulthood are filled with possibility and uncertainty. The project of creating a coherent identity en route to becoming adult is inherently stressful. This developmental task is even more stressful given the economic, social and technological changes characteristic of our times. It may seem anachronistic in such a global, interconnected age to propose

Noting and labeling allows one to respond volitionally rather than to react emotionally to what is occurring in the present moment.

reduce the stress I am putting on myself unnecessarily? The classic example my students report is of being caught in traffic. They apply the practice to this situation and realize that to get upset about a situation that they cannot change is unhelpful and unnecessary. Letting go can be a liberating act.

Finally, and perhaps the most important of the steps is number four, "Begin Again." Mindfulness practice is not about performance or focusing on the breath or the mind in a perfectly performed manner. Rather, mindfulness is about trying again and again to be here now, to stay calm, to enter the present moment calmly and clearly, and to let go of unnecessary psychological burdens so we can see ourselves and each other more clearly. During mindfulness practices, our minds wander; we become distracted, we get caught up in the very feelings and thoughts we are trying to notice and label quietly, in a dispassionate way. This is the practice. We are not trying to stop the mind – indeed, we cannot! This is not the goal. Rather, we are trying to befriend and familiarize ourselves with our bodies and minds, to develop a new relationship full of self-compassion with them. We do this by starting again after distractions during the practice and by assuming a gentle attitude towards ourselves. The effort to know oneself and



that young people learn ancient training techniques to come to know their bodies and their minds better as they move towards full adult status. And yet, what modern science is revealing is that the stress inherent in 21st century life requires a commitment of time to self-care and personal development. As Gandhi put it, we must become the change we wish to see in the world: If we wish for a world that is kinder, wiser and more compassionate, then there is no better place to start than with ourselves. Evidence is beginning to show that mindfulness practice can assist adults young and old in this regard.

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FURTHER INFORMATION

Practical Resources:

- » www.basicmindfulness.org
- » www.umassmed.edu/cfm
- » Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York: Hyperion.

Research Resources:

- » www.mindandlife.org
- » www.investigatinghealthyminds.org
- » Begley, S. (2007). *Train your mind, change your brain: How a new science reveals our extraordinary potential to transform ourselves*. New York, NY: Ballantine Books.

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How Diet and Nutrition Affect Mental Health

Many of us already know that when we make healthy food choices we tend to feel better, and when we eat heavy, sugary foods we can feel tired or sluggish. Therefore, it should come as no surprise that there is considerable evidence to suggest that nutrition can have an impact on mental health as well as physical health. This is especially true for young people. For example, Oddy et al.¹ found that poorer mental health outcomes in adolescents aged 13-15 were associated with a Western dietary pattern (a diet high in red and processed meats, take-out, and sugary and refined foods). Better mental health outcomes were found in those who had a higher intake of fresh fruit and leafy green vegetables.

Overconsumption of sugar alone can negatively impact young people's mental health. In a sample of 5,498 youth aged 15-16 in Oslo, Norway, researchers found a strong association between sugary soft drink consumption and mental health problems.² In a related study, researchers found a positive association between consumption of sugary soft drinks and sweet foods and risks for suicidal behaviors among adolescents aged 12-19 in Jiangsu Province, China.³

Certain foods and dietary supplements, such as fish, fruits and vegetables, and over-the-counter vitamins and supplements can have a positive impact on young people's mental health. For example, Omega-3 fatty acids, which are found in fish and fish oil, are beneficial to neural functioning.⁴ In a randomized, double-blind, placebo-controlled study of adolescents, researchers found that fish oil may prevent progression of psychosis in high-risk youth aged

13-25. Participants who took capsules containing concentrated marine fish oil once per day for 12 weeks had significantly reduced the transition rate to full psychosis. In addition, researchers found significant symptomatic and functional improvements during the 12 month follow-up period. These findings are especially promising because fish oil tends to have minimal side effects and it is accessible and affordable. The authors of this study suggest that fish oil may offer a safe and effective prevention strategy in young people who are at a high risk of developing psychosis.⁵

Vitamin D is another supplement that can positively affect mental wellbeing. Multiple studies have linked vitamin D deficiency to cognitive impairment, depression, bipolar disorder, and schizophrenia. Therefore, many mental health professionals and physicians recommend regular vitamin D intake.⁴

Following an extensive review of the literature on the benefits of nutrition and diet on mental health, Walsh⁴ determined that one's diet should: contain a wide array of multicolored fruits and vegetables (i.e., "rainbow diet": see table on next page); contain some fish, with preference given to cold deep-seawater fish, such as salmon; and reduce excess calories. Implementation of these diet changes could result in improved mental well-being. However, before making any dietary changes, speaking with a doctor is recommended.

YOUTH DIETARY PRACTICES

Nutrition is especially important during adolescence due to rapid growth and development. The onset of many psychiatric illnesses which coincide with adolescence¹ may

be diminished by recommended dietary habits. Additionally, behavior patterns (such as eating habits) acquired during this time are likely to influence long-term behaviors.⁶ However, getting young people to eat healthier is not always easy.

In a study of 141 adolescents in 7th and 10th grade from two schools in St. Paul, Minnesota, researchers found that the factors that most influence teens' eating habits were: hunger or cravings; appeal or taste; time available to them; their parents' eating habits and schedules; and convenience. Time considerations appeared to strongly influence participants' food choices. The young people said that they would prefer to sleep longer in the morning rather than prepare and/or eat breakfast. In addition, they reported not wanting to wait in a long lunch line at school; fast-food was appealing because it was served quickly. When preparing their own food, young people wanted to make food that was quick and easy. Some young people reported that they ate a lot of take-out because their parents did not have time to cook or prepare meals at home.

Some additional barriers to eating well as reported by participants were: healthy food, such as fruit and vegetables, available at school were bruised or "nasty"; healthier food choices were less convenient because some fruits and vegetables require extra preparation time (e.g. peeling, cooking); healthful foods were typically not served at fast-food restaurants; finally, participants viewed fast-food as less expensive than healthier foods. When asked what would make eating more nutritiously easier for adolescents the participants suggested: making healthy foods look and taste better by serving vegetables with dips, preparing vegetables in a stir-fry or hiding vegetables in stews,

offering healthier options at fast-food restaurants and vending machines, and making healthy food available at home. Lastly, participants said that eating healthy should be "cool" and suggested better advertising and packaging designs for healthy foods.⁷

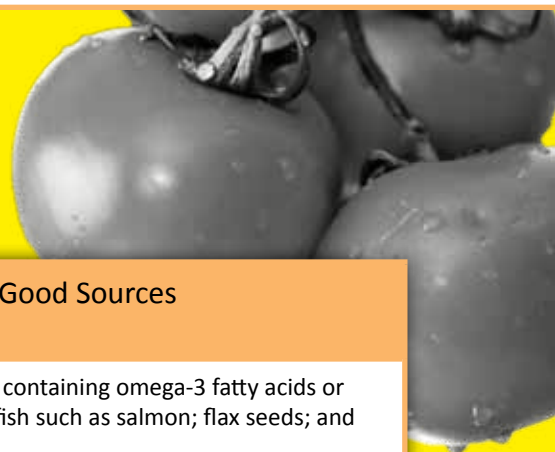
Gender and ethnicity appears to affect the food choices young people make. In a study of 780 adolescents, aged 14-19 from 4 public high schools in San Bernardino, California, researchers found that males reported significantly greater caloric intake in comparison to females. In contrast, females reported greater intentions to eat healthfully, held more positive attitudes towards healthy food choices, and felt more social pressure to eat healthy foods in comparison to males. Researchers found that Black participants, both male and female, reported significantly greater caloric intake and a higher proportion of calories from fat than their White and Hispanic counterparts.⁸

MODIFYING YOUTH DIETARY HABITS

Dietary modifications that increase nutrition can be introduced quickly with minimal to no health risks and could offer significant improvements in physical health, self-esteem, and quality of life.⁹ Although getting young people to eat healthfully can sometimes be challenging, putting in the effort to help young people eat better can improve their physical and mental well-being.

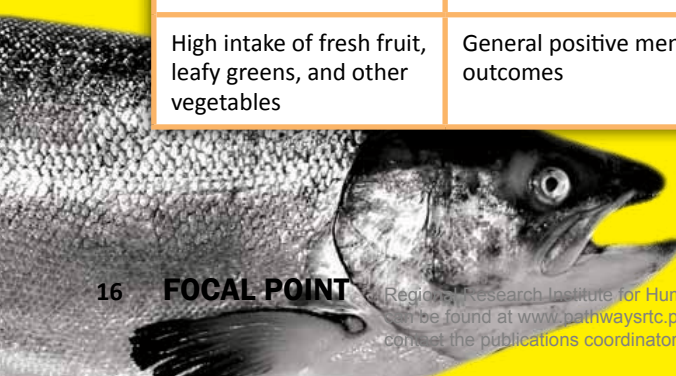
Parents and caregivers can help young people make healthy food choices by keeping fruits and vegetables stocked at home while limiting access to high-fat and sugary foods. Parents and caregivers could also try to get young people involved in grocery shopping and meal prepara-

Rainbow Diet and Omega-3 Food Sources



Food or Supplement	Improvements in Mental Health Conditions	Good Sources
Fish and Fish Oil; Omega-3 Fatty Acids	Psychosis	Fish oil supplements containing omega-3 fatty acids or cold deep seawater fish such as salmon; flax seeds; and walnuts.
Vitamin D	Cognitive Impairment, depression, bipolar disorder, schizophrenia	Vitamin D dietary supplements; limited amounts of unprotected exposure to natural sunlight (avoid burning); fatty fish such as salmon, tuna, and mackerel; and vitamin D fortified foods such as orange juice, milk, and yogurt.
High intake of fresh fruit, leafy greens, and other vegetables	General positive mental health outcomes	Apple slices, oranges, berries, bananas, kale chips, collard greens, spinach, tomatoes, carrots, etc.

**Consult your doctor before making any diet changes or introducing vitamins and supplements into your diet*





Getting young people to eat healthier is not always easy.

tion to help build cooking skills and increase engagement in their health. Encouraging adolescents to make small changes like swapping out soda pop for sparkling water or choosing carrot sticks over potato chips for an afternoon snack might eventually lead young people to make more healthy choices after they experience some success with feeling better physically and/or mentally. Although parents and caregivers are the primary influences over adolescent food choice, the eating habits of siblings and friends are also influential, so it's important to consider their involvement when encouraging a young person to adopt healthful eating practices.⁸

To help young people develop a deeper relationship with their food, parents and caregivers could take their youth to farmer's markets where young people can meet the people growing their food. Perhaps, parents could encourage youth to plant a backyard, patio, or countertop garden, or encourage them to participate in a community garden (and if there isn't one in your area, consider starting one!). By investing time in planting, watering, and nurturing the produce in their own backyard or community garden young people might develop a deeper connection to their food which might lead to a greater interest in cooking or making healthful changes.

Changing one's diet to include healthier food choices can be challenging, especially for young people. It can take months or even years. Encouraging, celebrating and modeling these behaviors as well as teaching adolescents how to make quick, tasty, healthy foods could be quite beneficial especially as they transition into adulthood. Obviously, the suggestions mentioned above require extra time, effort and planning, and many parents, caregivers, and adolescents have busy lives. However, putting in the effort to encourage adolescents to make smart food choices can help them build healthy habits that could have a positive impact on their physical and mental health.

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DEFINING FOOD & COPING WITH DEPRESSION



Dictionary.com defines “food” as “any nourishing substance that is eaten, drunk, and otherwise taken into the body to sustain life, provide energy, promote growth, etc.” I was somewhat surprised by this definition, because I’ve come to see the sustaining substance that is food as so much more than just its dictionary definition, and none of my own definition is seen in any dictionary I’ve seen. My way of thinking about food is defined as “a sustaining substance that not only is essential for survival, but also is a coping skill, a friend, something that is constant and always there for you, an enemy, a cycle that is hard to break, and a regret.” My definition is longer, more in-depth maybe, and can be applied directly to my own life.

To understand my definition of food, you must first understand that my way of thinking about food has a direct correlation to my struggles with depression. I’ve been depressed since high school, and I’ve always loved food. It makes me happy, so it makes sense that food is the first thing I turn to when I am feeling depressed. Food provides me with an outlet, a way out for a few minutes. Even if it’s not necessarily a healthy habit, and even though it only provides a temporary release, it has worked for me for a long time.

When I first started eating more, the weight gain wasn’t a big deal. It was gradual, and sometimes the difference was so small that nobody, including myself, really noticed. A pound here, a pound there, but nothing really substantial. That is, until the pounds started to add up. When I started to see how much weight I was gaining, I felt like I couldn’t control it. For me, the release that I got out of enjoying food was worth the weight gain.

Fifty pounds and 3 years later, I still struggle to “put the fork down” and to deal with my feelings appropriately. Now, though, I can see the negative effects that the weight has added to my life. I am very self-conscious about my body, and I usually always wear jeans, and clothes that aren’t too tight. I hate wearing bathing suits, and my self-esteem is next to nothing. I feel guilty after eating anything that contains too many calories, and I have a hard time with going

out to eat in a restaurant. It’s like there is this constant battle going on inside my head. Not only the depression battle (you’re not good enough, etc.) but also the battle of whether or not I should eat this or that.

It is difficult, but I am trying to combat both “battles” by trying to eat better, and to exercise more. I want to lose the weight that I’ve gained, and I know it’s going to be a long road ahead of me. But there is no reason why I shouldn’t be able to do it. I am still depressed, but I know now that I can’t let it swallow me, and I can’t feed the fire with food, because the negative impact on both my physical and mental health far outweighs the happiness I feel for a few minutes while consuming sweets. I do slip up sometimes – I’m only human after all. But I’m dealing with my emotions differently than I would have a few years ago.

Before when I felt depressed, I would have eaten ice cream or some other high calorie snack until I was full. More than full, actually. Ready to explode might be a better description. But now, things are different. I still experience those emotions frequently, but now I talk about them. It’s hard, really hard, but I’ve found the talking to work even better than food. I’ve discovered new outlets to use to help my symptoms, like taking up poetry again, and I’ve even gone and participated in some poetry slams! I’m happier, losing weight, and generally just in a better place. And that is the most important thing.

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Schizophrenia, Antipsychotic Drugs, and Drug-Induced Weight Gain and Obesity

This article addresses weight gain and related side effects that may occur while taking medications to manage schizophrenia, as well as the trade-offs of taking some medications as opposed to others. As we state below, not all medications are the same. It's important to talk with your health care provider to find the medication that's right for you and also find ways to manage your health to live a fulfilling life.

Unfortunately, people suffering from schizophrenia, on average, die about 25 years earlier than individuals from the general population. Some of this reduced life expectancy is due to coronary heart disease (CHD),¹ although other factors also contribute. Current findings suggest that this mortality gap increased recently.² The underlying cause of CHD is coronary artery disease (CAD—the narrowing of the coronary arteries). Well-established risk factors for CAD include smoking, diabetes, high cholesterol, high blood pressure, and obesity. Many of these risk factors converge to form the metabolic syndrome, the group of risk factors that occur together and increase the risk for coronary artery disease, stroke, and type 2 diabetes. Many of the individual risk factors and the metabolic syndrome itself are more prevalent in subjects with schizophrenia than the general population.³ Unhealthy lifestyle, adverse metabolic effects of medications used to treat schizophrenia (usually antipsychotic drugs) and possible genetic susceptibility best explain this increased prevalence. In this article, we focus on the potential adverse metabolic effects of antipsychotic drug treatment and how to best manage them.

SCHIZOPHRENIA AND ANTIPSYCHOTIC DRUGS

Schizophrenia is a mental condition characterized by problems in perception, thinking, cognition, mood, and volition. Symptoms typically include hallucinations and delusions, or psychosis. In most cases, schizophrenia starts in late adolescence or early adulthood with progressive academic, functional, and social challenges following the onset of psychosis. Schizophrenia is a chronic condition and people living with the condition often require long-term treatment with antipsychotic drugs.

Antipsychotic drugs are the medications most commonly used to treat schizophrenia. The older antipsychotic drugs were associated with motor side effects like tremor and other involuntary movements. The newer antipsychotic drugs are relatively safe in this regard. The older antipsychotic drugs are called “typical” or “first-generation” antipsychotic drugs and the newer ones are called “atypical” or “second-generation” antipsychotic drugs. First-generation antipsychotic drugs are now used rarely to treat schizophrenia in the United States but are often used in less developed countries.

Second-generation antipsychotic drugs were initially thought to have better side-effect profiles than first-generation medications. However, problems with second-generation antipsychotic drugs quickly became evident; side effects include drug-induced weight gain and its complications. Therefore, professional organizations developed consensus guidelines for baseline assessment and monitoring of patients prescribed antipsychotic drugs (Table 1).⁴ The FDA (US Food and Drug Administration) directed all manufacturers of second-generation antipsychotic drugs

to warn prescribers and patients of the potential for these drugs to induce hyperglycemia (high blood sugar) and diabetes mellitus (diabetes), which are often associated with weight gain.

METABOLIC PROBLEMS AND THE METABOLIC SYNDROME

Metabolic problems of greatest concern pertain to the body’s ability to properly manage (1) glucose and (2) lipids (their storage, consumption, and conversion to metabolically useful chemicals). Glucose dysregulation includes high blood sugar that can progress to diabetes. Dysregulation of lipid (fat) metabolism, commonly referred to as “high cholesterol,” may be called dyslipidemia. Although most people who experience metabolic disturbances also experience being overweight or obese, metabolic dysregulation can occasionally occur without weight gain. Excess weight/obesity, hyperglycemia/diabetes, dyslipidemia, cigarette smoking, and lack of physical activity are well-established risk factors for the development of CAD. When symptoms develop in CAD, the condition is called CHD.

Atypical Antipsychotic Drugs And Metabolic Disturbances (see Table 2)

Atypical antipsychotics currently available in the United States (in order of market approval) are: clozapine (1990), risperidone (1994), olanzapine (1996), quetiapine (1997), ziprasidone (2000), aripiprazole (2001), and paliperidone [the main active metabolite of risperidone] (2006). These agents are also available in Europe. Atypical antipsychotics available in Europe but not in the United States are amisulpride, melperone, sertindole, sulpiride, and zotepine. Atypical antipsychotic drugs differ in their potential to cause metabolic adverse effects.^{5,6}

Weight Gain

Weight gain usually results from increased appetite—and subsequent excessive food consumption. Antipsychotic agents differ in their potential to cause weight gain. Risk of weight gain is greatest for those taking clozapine and least for ziprasidone (Table 2).⁵ For other antipsychotic drugs, the risk can be “quantified” for short-term use with olanzapine having high risk, quetiapine and possibly zotepine having moderate risk, and risperidone, sertindole, amisulpride, aripiprazole, and ziprasidone having mild risk. The estimated mean weight gain over 1 year is about 1 kg (2.2 lbs) with aripiprazole and ziprasidone, 1.5 kg (3.3 lbs) with amisulpride, 2 - 3 kg (4.4 - 6.6 lbs) with quetiapine and risperidone, and over 6 kg (13.2 lbs) with olanzapine and clozapine.^{7,8} With long-term use, differences in weight-gain are less pronounced. There can be significant individual differences in weight gain based on the type and amount of foods consumed. The risk and extent of weight gain are much higher in younger first-episode psychosis patients with no previous exposure to antipsychotic drugs compared with patients in long-term treatment. Therefore, young adults experiencing psychosis for the first time are at greater risk for weight gain due to medication effect.⁹

Glucose Dysregulation and Diabetes

Atypical antipsychotic drugs pose varying degrees of risk for high blood sugar levels that usually develop slowly over several years and can progress to diabetes mellitus (Table 2). Diabetes commonly follows drug-induced weight gain. However, olanzapine and clozapine may directly induce glucose dysregulation in the absence of weight gain. Very rarely, hyperglycemia may develop rather suddenly within several weeks of starting an antipsychotic drug. The potential risk is high with olanzapine and clozapine,

Table 1. Consensus Guidelines for Baseline Assessment and Monitoring of Patients Receiving Atypical Antipsychotic Medications (More Frequent Assessments May Be Warranted Based on Clinical Status)⁴

	Baseline	4 weeks	8 weeks	12 weeks	Quarterly	Annually	Every 5 years
Personal/family history*	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting plasma glucose	X			X		X	
Fasting lipid profile	X			X			X

*Personal and family history of obesity, diabetes, dyslipidemia, hypertension, or cardiovascular disease

Table 2. Relative Likelihood of Metabolic Disturbances with Atypical Antipsychotic Medications^{5,6}

Medication	Weight Gain	Glucose Metabolism Abnormalities	Dyslipidemia	Metabolic Syndrome
Amisulpride	Low	Low	Low	—
Aripiprazole	Low	Low	Low	Low
Clozapine	High	High	High	High
Melperone	—	—	—	—
Olanzapine	High	High	High	High
Paliperidone	—	—	—	—
Risperidone	Medium	Medium-to-low	Low	Medium
Sulpiride	—	—	—	—
Quetiapine	Medium	Medium-to-low	High	High
Sertindole	Low	—	—	—
Ziprasidone	Low	Low	Low	Low
Zotepine	Medium	—	—	—

medium for quetiapine and low for risperidone, aripiprazole, and ziprasidone. Young female patients with normal weight at baseline who gain weight rapidly appear to be particularly prone to this complication.

Effects on Lipids

The administration of atypical antipsychotic drugs may result in elevated lipids, including reduced “good cholesterol” (HDL – high density lipoproteins) and elevated “bad cholesterol” (cholesterol, triglycerides, and LDL – low density lipoproteins). The risk is high with clozapine, olanzapine, and quetiapine and relatively lower with risperidone and amisulpride. Ziprasidone and aripiprazole are least likely (or unlikely) to cause unhealthy cholesterol. The lipid profiles of patients who switched to one of these agents from another antipsychotic drug may actually improve.⁵ Weight gain associated with atypical antipsychotic drug administration may explain unhealthy cholesterol levels in most cases, but occasionally this disturbance occurs without weight gain.

TREATMENT WITH ANTIPSYCHOTIC DRUGS

Schizophrenia is a chronic and disabling condition. Taking antipsychotic drugs is usually needed to control the symptoms of this condition to improve functioning and

quality of life. Therefore, if medications are prescribed, the potential adverse metabolic effects of antipsychotic drugs should not prevent someone from taking these medications. Instead, effort should be made to minimize the potential side effects of these medications.

Young adults who begin taking antipsychotic drugs should be screened for various metabolic and CHD risk factors at baseline and periodically thereafter. Professional organizations provide guidelines (Table 1). As discussed above, different atypical antipsychotic drugs vary in their potential to cause adverse metabolic effects. Because antipsychotic drugs differ little, if any, in their efficacy in treating schizophrenia, a person who has personal risk factors for CHD at baseline or a strong family history of these risk factors should not take a medication associated with high metabolic complications. People treating their schizophrenia with antipsychotic medications should work closely with their primary care physician or their health care provider to monitor any early signs of metabolic disturbances (e.g., rapid or persistent weight gain) after starting an antipsychotic drug. Periodic monitoring of blood pressure, glucose and lipids should also be conducted by the psychiatrist or family physician. If metabolic worsening occurs, patients and their health care providers should work together sooner rather than later to change treatment to an antipsychotic drug with a lower metabolic risk.

Healthy lifestyle interventions are essential to counter adverse metabolic effects of antipsychotic drugs and metabolic problems or risk factors that may be present before starting an antipsychotic drug. Healthy lifestyle habits include eating a balanced diet and getting regular exercise. Health care providers should offer education and support, but sometimes patients benefit most from the services of a dietician and/or exercise therapist. Cigarette smoking is a well-established risk factor for CHD, so people with schizophrenia who smoke should discuss with their healthcare provider the options that are available to help them quit smoking. Alcohol or substance use may also adversely affect the course of schizophrenia. If many lifestyle changes are needed, they should be incorporated at a pace that is comfortable and manageable. Patients should make sure they get the right people on their healthcare team and support system to help them go through this – no one can do it alone!

CONCLUSION

People with schizophrenia are at risk for metabolic problems, CHD, and early cardiac death. Unhealthy lifestyle factors and potential metabolic complications of antipsychotic drugs contribute to these risks. Antipsychotic drugs differ in their metabolic risk, so individuals with schizophrenia should consult their health care providers in selecting the best and safest medication for them. Unfortunately, despite available treatment guidelines, baseline assessment and regular monitoring for metabolic problems are not that common. Therefore, it is important for patients to initiate the conversation about medication safety with their health care providers if necessary.

Adoption of a healthy lifestyle is the most effective way to diminish the risk of metabolic problems, CHD, and early mortality. People with schizophrenia should enlist the help of friends, family, and health professionals to support them in making the changes they need to live a happy, healthy, productive life.

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Addressing the Physical Health Challenges Impacting Young Individuals with Major Mental Illness



Research has found that individuals who suffer from major mental illness, such as schizophrenia, are dying on average 15-25 years earlier than those who do not suffer from schizophrenia.¹ Many causes for this shortened lifespan are suspected. Those causes include: lack of access to health care, suicide, poverty, substance use and side effects from anti-psychotic medications.¹ The Substance Abuse and Mental Health Services Administration (SAMHSA) has challenged mental health providers treating major mental illness to address this disturbing trend by promoting their “10x10” campaign. The goal of the campaign is to increase the lifespan of individuals who suffer from major mental illness by ten years over the next ten years.¹

One example of a program that has taken on this challenge is Oregon’s Early Assessment and Support Alliance (EASA). EASA is a systematic effort within Oregon to prevent early trauma and disability caused by schizophrenia-related conditions. The goal of EASA is to identify individuals in the earliest possible stage of a schizophrenia-related condition and provide rapid and intensive treatment to the individual experiencing the condition and to their family and/or primary support system. EASA programs are currently active in sixteen Oregon counties and are free to individuals who meet criteria for a new schizophrenia-related condition.

EASA programs attempt to curb the historically poor health outcomes among people with schizophrenia by coordinating with primary care providers, monitoring for side effects of medications and general health issues, supporting healthy lifestyles, and engaging the individuals and their family/primary support systems with the EASA team members in addressing the risk factors early.

The following is from an interview with “Chris”*, a 21-year-old male college student who recently graduated from an EASA program. He was interested in sharing his

story about health challenges he faced as a result of a psychotic episode and subsequent medical care.

For many individuals in the EASA program, their mental health condition starts at a young age and often with severe consequences. The age of onset for conditions like what Chris experiences is often late teens or early adulthood. Chris’s experience is really no different. As a college student Chris was active in sports, and talented enough to play for the college’s team. He was very fit and had been for as long as he could remember. Approximately two years ago Chris experienced a psychotic episode resulting in a psychiatric hospitalization, the loss of his academic enrollment, and the loss of his housing.

While in the hospital Chris was started on Zyprexa, an atypical anti-psychotic medication to help in stabilizing his symptoms. Although Chris described the medication as helpful, it did result in him gaining 55 pounds over the course of 4 months and “feeling tired all the time.” Chris said he did not notice the weight gain initially; it was only when his friends pointed it out to him that he really started taking a closer look at the changes in his body: “I was working with the EASA nurse, and she had me get on the scale... I was surprised by the number,” he said. “I did not think I could gain that kind of weight. I was always running and skiing, I never had to worry about it before... This whole situation made me pay attention to many things I had never noticed before.”

Chris, like many young people, did not have what would be described as a healthy diet prior to the onset of his symptoms, but he stated he “would only eat junk food during special occasions.” But when Chris lost his home and began living in a hotel due to his mental health challenges, eating well became more difficult. “I did not have access to any healthy food,” he stated. “I did not have a store close by and my only place to keep food was a small fridge...I did not have the opportunity to eat healthy even if I wanted to.”

To help in managing the weight gain and what Chris's doctor described to him as a "pre-diabetic" condition, Chris was prescribed another medication without the metabolic profile of Zyprexa. Unfortunately that medication resulted in a manic episode and he was forced to discontinue it.

Chris was asked how he coped with the weight gain and what he did to manage the health concerns expressed by his doctor. "I met with the EASA nurse once every three weeks or so. We watched my weight, monitored my labs and she provided me with support and ideas." One of those ideas was to get support from a naturopathic physician who provided him with ideas of foods to eliminate or reduce from his diet. "I gave up beer, cigarettes, caffeine, and dairy... I also started taking fish oil."

When asked about the most important thing he did to help himself get and stay healthy, Chris responded, "With the help and support of the EASA team, I was able to move in with my parents. EASA and my parents then helped me get back onto my normal routine and get back to school. Once back in school I took weight lifting and basketball classes. It was helpful to have the motivation of getting a grade to get me back to exercising again."

Chris was asked what advice he would give to other young people who experienced similar challenges. He advised, "Find an exercise activity that you love to do... and do it with people that you enjoy... and do it at least two times a week."



Over the last year Chris lost all the weight he gained. He is active with sports and plays on a college club team; he is also working part time and has applied to graduate programs. He worked closely with his EASA doctor to reduce and ultimately stop the Zyprexa. He has been off that medication for the last eight months without a relapse in symptoms. He does continue to take the fish oil for symptom prevention and, because "It makes me feel smarter."

Chris was asked how he maintains his healthy lifestyle now that he has completed the EASA program. "I have gone back to allowing myself to indulge on unhealthy foods on the weekends, especially if I am out with my friends, but during the week I watch what I eat and my family now helps me with that."

Chris's story is a good example of the multiple risk factors associated with a schizophrenia-related condition. Following the onset of his condition, Chris lost access to his education, his home and his social activities. The treatment initially offered to Chris, although helpful in reducing his symptoms, resulted in significant weight gain and inactivity. He also took up smoking cigarettes, which is common for individuals first experiencing psychosis. Chris's story also represents how an EASA team worked with Chris and his family to support him in getting his life back and reducing the health risks that could have had long term consequences for his life. The concerns Chris described are common with individuals in EASA programs. To address these health challenges amongst the myriad of other challenges individuals in the early stage of a schizophrenia-related condition face, EASA programs take a holistic and collaborative approach when working with individuals like Chris. EASA team members include mental health counselors, nurses, physicians, occupational therapists and employment/education specialists. The entire EASA team meets weekly to coordinate care focusing both on risk factors and the individual's personal goals. It is the hope of EASA programs across Oregon that this approach to health care for individuals in the early stage of a schizophrenia-related condition will assist in meeting SAMHSA's 10x10 challenge as well as assist individuals in getting back on track with the lifestyles they enjoyed prior to the onset of their condition. To learn more about EASA and the early warning signs of a major mental illness, please go to www.easacommunity.org.

**Some information from this interview, including Chris's name, has been changed to protect his identity.*

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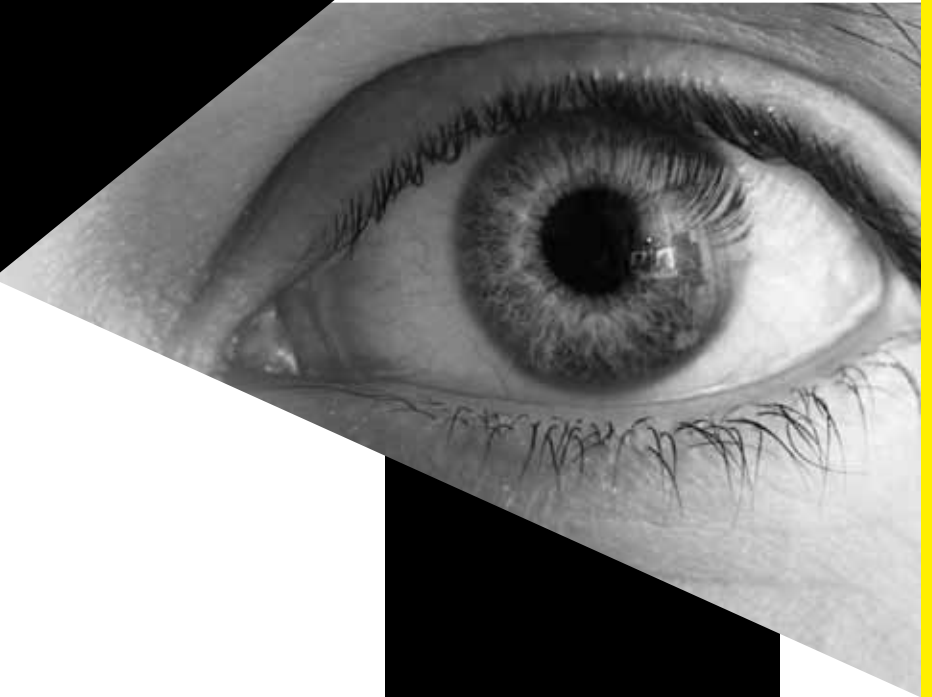
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"Chris" is a full time university student.

complications



the motions i perform each day seem rote, but they're riddled with pauses that betray the litany of doubts littering the background of my brain.

is my binding okay? wait, i'm not wearing a binder.† but i feel flat-chested... oh right, i had surgery: i don't need a binder anymore. but it does feel weird, cotton against skin.

i wore garments to bind my chest every day for eight years, and my sensory processing system got used to the deep compression. i feel normal (gender) and scattered (sensory) and un-tense (unbound) and fat (eating disorder) and sore (incisions).

i ask the mirror: does eyeshadow make me look like a girl? a cisgender†† girl, or a girly boy? what if i add eyeliner? it only stares at me, blank-faced.

mirrors are a classic feature in stories about body image, but not without reason. they tell me what furtive glances and outright stares from

strangers on the bus never completely let on.

if i wear my hair like this, will it compensate for the eye makeup? i hate myself when it parts in the middle. i don't know if it makes me look like a girl or a boy or if it just reminds me of how i wore my hair when i was young and didn't know what to do with myself. when my body started changing and i stopped eating and people started taking me to doctors.

this is self-centered, selfish. do i really think about myself this much? don't i care about other people at all?

i shouldn't write this. i shouldn't sign my name.

again, the mirror: i'll make my hair messy, wet. but maybe i should just take off the eyeliner.

what's the point? either they're going to think i'm a boy or they're going to think i'm a girl or they're going to stare at me until i look up from my book with the tingly feeling of their eyes scanning my body up and down. buses, strewn throughout my day: why am i being stared at now? scars? size? gender? and don't i do this to myself enough? don't i run my eyes over my body more than enough times to outnumber all the strangers i'll ever see? it doesn't matter how they'll see my gender, they'll still see i'm fat.

self-centered? all i care about is myself? it can't be that i care about myself: if this is self-centered, it's self-hate. self harm, self image, body image, body hate. but it doesn't have to be. remember? recovery?

mirrors tell me, if not what i look like, then what i think i look like. there lingers the pointlessness of the reflection, the strange way it makes me leave my body. you'd think

twenty-six years would be long enough for me to have learned how to inhabit myself. standing in front of the mirror clarifies nothing and confuses everything. and yet i carry it with me the rest of the day; the inside of my skull reflecting against itself like the mirrored walls of a ballet studio.

the mirror only reflects disguise over disguise over disguise. there seems to be no number of layers that approximates my self and no number i can peel away that would reveal me, either. taking off my boots and cargo shorts at the end of the day feels more like putting ON drag: the barefoot walk between my closet and my bed feels like someone else's shoes. like my body, stripped, is hiding something from me.

i hide, i've hidden: self-injury under bracelets, and tattoos under concealer... i've hidden my chest from myself for years, and now that it's better, it turns out i have a belly underneath those old binders. but i don't know how to hide my belly away except to hide the chocolate on the top shelf and the leftovers in the garbage can. i have to eat breakfast. (it's hard to hide from hunger.)

but first i have to take my meds, even if i don't feel like it - pills, like pink and blue candy. i know they calm my thoughts. but are these what made me fat

in the first place? or, is blaming them just an attempt to absolve my guilt? i'm not supposed to feel guilty for eating; i'm not supposed to feel guilty for having made myself fat. but maybe i'm not fat? or maybe it's okay if i am?

when i can't make myself eat breakfast, i drink a nutrition shake like i promised. i write it down in my food log - amount, appetite, time, place. i promised. even to myself.

still, all i want to be is skinny and less gendered. how is it that my basic drive for authenticity got tangled up with these haunting notions of emaciation? it doesn't matter. i just want to be skinny.

and yet, somehow, i'm trying to recover. i'm trying to learn how to care about myself, remember? to care for myself. and, yes. that's why i bound and that's why i got surgery and that's why i drink nutrition shakes when i can't get myself to eat and that's why i fight the mirror every morning so i don't have to fight the strangers on the bus: it's self-care. it's why i go to treatment. it isn't easy, and, i can do it.

it's recovery: fighting the mirrors of my mind for my sanity, for my life, for my body. twenty-six years in, realizing i have a right to be inside myself. i can do everything i can to keep away from my body, to reign myself in and keep cover in my brain and layer on clothes and avoid the mirror, but i still have a right to inhabit my tangible self. if, and when, i get there... my body will be waiting for me.

AUTHOR

e* *corbin* is a trans/nongender young person who works at a nonprofit in portland, oregon. they recently (finally!) had gender-affirming surgery, and they currently attend an eating disorders treatment program. e* values both their scars and their recovery.

i shouldn't write this. i shouldn't sign my name.

† in this piece, the word binder refers to a tight-fitting undershirt that flattens breast tissue.

†† cisgender is a descriptor of people who identify with the sex they were born as (i.e., people who are not gender variant), and drag to imply forms of gender expression (clothes and beyond) that push the edges of the expected.

DATA TRENDS

EXERCISE TO TREAT DEPRESSION: HOW MUCH IS ENOUGH?

SOURCE

Dunn, A. L., Trivedi, M. H., Kampert, J. B., Clark, C. G., & Chambliss, H. O. (2005). Exercise treatment for depression: Efficacy and dose response. *American Journal of Preventive Medicine*, 28, 1-8.

Exercise has been considered a viable option for treating depression or even preventing it. It is relatively inexpensive, has fewer side effects than medication, and is associated with many other health benefits. However, it is unclear how much exercise is needed in order for it to improve depressive symptoms. The purpose of this study was to assess how much exercise is needed in order to effectively reduce depression in adults.

METHODS

Study participants were 80 men and women (75% women), aged 20 to 45 years (mean age = 36 years), who were diagnosed with mild to moderate depression according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). In order for participants to be eligible for the study, they could not have already been regular exercisers, and could not be more than 160% over ideal weight.

Participants were randomly assigned to one of five groups: four intervention exercise groups and a control group, in which participants engaged in stretching and flexibility exercises three days a week for 15 to 20 minutes per session. Exercisers used either a treadmill or stationary bicycle. Two intervention groups exercised three days a week, the other two exercised five days a week; two groups exercised at a rate of approximately 3 calories per pound of body weight per week (considered low dose: LD), while the other two groups exercised at a rate of 8 calories per pound of body weight per week; this latter dose is the amount of exercise recommended by the American College of Sports Medicine as the ideal "public health dose" (PHD).¹ Thus, one group of exercisers had a LD for 3 times/week, one a PHD at 3 times/week, another a LD 5 times/week and the fourth had a PHD 5 times/week. All participants were engaged in their groups for twelve weeks.

There were three outcome measures. The first was a change in the Hamilton Rating Scale for Depression (HRSD-17). The second was Response, defined as a 50% reduction in symptoms in a participant as measured by the HRSD-17. The third was Remission, defined as a participant scoring seven or lower on the HRSD-17.

Participants who exercised at a "public health dose" level demonstrated significantly lower scores on a depression measure and higher rates of remission from depression after just twelve weeks.

RESULTS

Across all groups, there were no significant differences in body mass index (BMI) or HRSD-17 scores at baseline. Additionally, BMI was not significantly related to HRSD-17 scores. Average length of participation across all exercise groups was 9.2 of



a possible 12 weeks, showing that many participants stayed in the program for a significant amount of time. There were no differences in drop-out rate across the intervention groups, but those assigned to the control group had a higher drop-out rate (average of 6.8 weeks of participation).

After twelve weeks, all groups, including the control group, had significant reductions in HRSD-17 scores, indicating decreases in depression symptoms. Those in the PHD conditions had the largest decreases in symptoms (47% decrease in HRSD-17 scores); number of exercise days (3 or 5) did not make a difference; rather, it was the intensity of the exercise that seemed to predict the most improvement. The LD groups did not differ in symptom reduction when compared to the control group (30% vs. 29%, respectively). Regarding Response and Remission, the 5-day PHD group had the highest Response rate (44%) and the 3-day PHD group had the highest Remission Rate (41%). The smallest Response and Remission rates were found in the 5-day LD group (6% and 11%, respectively). The stretching control group experienced a 30% Response rate and a 25% Remission rate. Number of exercise days did not significantly predict Response or Remission in participants. As a comparison, according to a study conducted by the National Institute of Mental Health, rates of remission were 36% for cognitive behavioral therapy and 42% for anti-depressant medication.

CONCLUSION

This study demonstrates that when it comes to exercise as a way to alleviate depression, it's not how many times per week but the intensity and duration of the workout that counts the most. This study showed that there were no differences in reducing depression symptoms between participants that exercised three vs. five days per week. However, those participants who exercised at a "public health dose" level demonstrated significantly lower scores on a depression measure and higher rates of remission from depression after just twelve weeks. That means persons exercising 30 minutes a day (this is a public health dose) just three days a week potentially can manage their depression as well as those who take medication or go to counseling. Given that exercise can be an easier and less stigmatizing treatment approach for some persons – especially young adults – this form of alleviating symptoms should be given careful consideration by mental health professionals.

LIMITATIONS

Although the findings of this study are encouraging, there are some limitations to this research. First, the average age of participants was 36; future

research should focus more specifically on the mental health benefits of exercise in youth and young adult populations. Additionally, this study only looked at the benefits of exercise in alleviating depression. A recent review article² has found that exercise has therapeutic effects on persons with several mental health conditions including anxiety disorders, depression, bipolar disorder, and schizophrenia, but more research is needed to strengthen and replicate these findings. Finally, this study utilized a weak control group: having participants engage in stretching for 20 minutes per session. This activity could be considered an exercise intervention in and of itself, as opposed to a true control situation. In fact, those who participated in the control group did show signs of improvement in their depressive symptoms, although not to the same extent as those who engaged in PHD exercise regimens. More research should be conducted to investigate the benefits of all levels of physical activity on alleviating depression in young adults, and compare the effectiveness of exercise to treatments involving medication and/or counseling.

Editor's Note: Although this study is older than those usually featured in Data Trends, the findings were deemed important and applicable enough to Focal Point readers to highlight this study as opposed to one published more recently.

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Massage therapy intervention for stress, anxiety and aggression on an acute psychiatric inpatient unit



Being admitted to a psychiatric inpatient unit is frequently associated with a high degree of stress and anxiety due to the controlled and confined nature of hospitalization and acute psychiatric symptoms, which can in turn exacerbate aggression. Pro re nata (PRN), or “as needed” medications are prescribed for approximately 75% and administered to approximately 50% of psychiatric inpatients to reduce agitation and aggression.¹ These medications have the advantage of working immediately to control a situation. Disadvantages of PRN medication regimens, however, include physical or psychological side effects associated with the medications, polypharmacy (a person taking more medication than is needed), development of tolerance and/or withdrawal effects with prolonged use, and potentially harmful drug interactions.

Patient aggression in mental health inpatient settings is a significant problem for both staff and patients. Aggressive behavior can threaten the physical and psychological health of psychiatric nursing staff and patients and compromises the atmosphere of the unit, ultimately impacting the capacity for patients’ mental health to improve satisfactorily. Further repercussions of patient aggression for staff and psychiatric services include increased absenteeism and sick leave; property damage; security costs; workers’ compensation; reduced job satisfaction; and staff recruitment and retention issues. Reducing patient aggression in the safest way possible for everyone involved is therefore a primary concern for psychiatric inpatient services.

One way to try to alleviate or reduce the onset of aggressive behavior in psychiatric inpatients is to help them manage their stress. Studies suggest increased levels of stress may trigger the emergence of psychotic symptoms in

vulnerable individuals or a relapse of symptoms in patients that are in remission.² Therefore, finding minimally invasive ways to reduce stress can be beneficial to both patients and staff in an inpatient setting.

THE BENEFITS OF MASSAGE THERAPY

Massage therapy is known to have widespread benefits. It promotes relaxation and significantly reduces stress levels. It also reduces the level of the stress hormone, cortisol, which is released from the adrenal glands during the body’s “fight or flight” reaction to stress. In addition to reducing stress, massage therapy has many other beneficial effects such as decreased self-reported and observed anxiety and depression levels, decreased tension, decreased pain, improved sleep patterns, positive effect on mood, increased mental alertness and enhanced immune function.

Massage therapy has been shown to be effective in lowering stress, anxiety and depression in patients with a variety of psychiatric conditions including bulimia and adjustment disorder, as well as in non-psychiatric populations. For example, one study conducted in a group of aggressive adolescents found that a 20-minute massage therapy session administered twice weekly for five weeks significantly reduced the adolescents’ self-reported hostility and anxiety levels as well as level of aggression perceived by their parents.³

OUR INTERVENTION

My colleagues and I recently conducted a pilot study to examine the effectiveness of a relaxation massage therapy program in reducing stress, anxiety and aggression within a young adult psychiatric inpatient unit.⁴ Participants were

ages 15-25 and recruited from a psychiatric inpatient unit in Australia. This was a non-blinded, non-randomized study. During the "control" time period (May 22, 2006 to July 9, 2006), incoming patients who agreed to participate in the study received treatment as usual (TAU). During the intervention phase (July 10, 2006 to August 27, 2006), upon admission to the unit, patients who agreed to participate in the study could choose between receiving TAU or TAU plus daily massage therapy. The massage was given at the same time each day, as schedules would allow, for the duration of the intervention period. Overall, fourteen youth participated in the TAU phase and eighteen youth received massage therapy during the intervention phase.

During the course of our study, we found that relaxation massage therapy was readily accepted by a significant proportion of adolescent/young adult inpatients with a range



of disorders including psychotic disorders, personality disorders and mood disorders. Additionally, our findings showed that a short 20-minute massage therapy session had immediate beneficial effects on anxiety and stress-related measures. After the massage therapy session there was a significant reduction in self-reported anxiety, resting heart rate and cortisol levels (the primary stress hormone). These findings suggest massage therapy may be a useful de-escalating tool for reducing stress and anxiety in acutely hospitalized psychiatric patients. Unfortunately, due to the lack of aggressive incidents reported by staff during the study we were unable to adequately assess the effect of massage therapy on levels of aggression. Also, there was no specific control relaxation therapy to compare with relaxation massage therapy, making it difficult to accurately determine whether the effects of massage were due to therapeutic touch or other associated factors such as one-on-one time with a therapist. Further research involving controlled, randomized studies examining the effect of massage therapy on patient agitation, anxiety and aggression is warranted.

CONCLUSION

A short 20-minute massage therapy session has immediate beneficial effects on anxiety and stress-related measures in acute psychiatric inpatients. PRN or "as needed" medications are frequently used for patients in mental health settings in order to calm patients and manage agitation, distress or difficult behavior; however these medications are often associated with adverse side effects. We propose that relaxation massage therapy may be a useful treatment when used on an as-needed basis to calm patients and reduce levels of stress, anxiety and agitation, which could potentially reduce and in some cases eliminate the need for PRN medication in certain patients. Massage therapy is a safe treatment, offering significant advantages over other methods such as medication to reduce stress or agitation. Basic relaxation massage does not require intensive therapeutic training and could be administered by nurses on the unit. Massage therapy as an additional tool for behavioral management in psychiatric inpatient units would also likely result in greater patient satisfaction, and improve the staff-to-patient relationship and therapeutic milieu of the unit.

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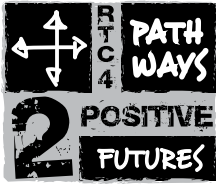
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Transition Reports

SUPPORTING SUCCESSFUL TRANSITIONS TO ADULthood
FOR YOUNG PEOPLE WITH SERIOUS MENTAL HEALTH CONDITIONS

SEXUAL HEALTH DISPARITIES AMONG DISENFRANCHISED YOUTH

This series of research briefs addresses sexual health disparities among seven subpopulations of youth, including: youth in corrections, youth with developmental disabilities, youth in foster care, homeless youth, LGBTQ youth, and more.



COMMUNITY BASED APPROACHES FOR SUPPORTING POSITIVE DEVELOPMENT IN YOUTH AND YOUNG ADULTS WITH SERIOUS MENTAL HEALTH CONDITIONS

This white paper describes recent theory and research on positive development, including descriptions of empirically supported programs that support young adults with mental health conditions.

FACTS ABOUT YOUNG ADULTS, MENTAL HEALTH, AND ONLINE INFORMATION SEEKING

This fact sheet series addresses how and why young adults search for mental health information on the internet, and how to assess the reliability of the information available online.



ENHANCING CAREER DEVELOPMENT ENGAGEMENT AND SELF-DETERMINATION FOR YOUNG ADULTS WITH MENTAL HEALTH DIAGNOSES

This report provides a literature review on self-determination and career development engagement for young adults with mental health diagnoses.

FOCAL POINT: HEALTHY RELATIONSHIPS

This issue of *Focal Point* explores healthy relationships and their effects on young adults with mental health conditions.

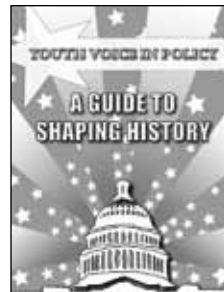


FOCAL POINT: TRANSITIONS TO ADULthood

This inaugural issue of *Focal Point: Youth, Young Adults, and Mental Health* addresses transitions to adulthood from the perspectives of researchers, youth, family, and professionals.

BEST PRACTICES FOR INCREASING MEANINGFUL YOUTH PARTICIPATION IN COLLABORATIVE TEAM PLANNING

This brief offers tips to increase meaningful youth participation in collaborative team planning meetings.



YOUTH VOICE IN POLICY: A GUIDE TO SHAPING HISTORY

This guide, produced in partnership by the Federation of Families for Children's Mental Health and Pathways RTC, provides youth and young adults with the basic skills they need to advocate for issues they feel are important.

Research and Training Center on Pathways to Positive Futures, Portland State University, Portland, Oregon.

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