



EDITORIAL

DIAB@EASE: MENTAL HEALTH MATTERS

Diabetes has been a **silent yet relentless adversary across generations**, with its earliest descriptions in ancient India by Sushruta, who called it "*Madhumeha*," a sweet, insidious condition affecting both body and spirit. Over centuries, we've advanced to precise measures and management practices, but somewhere along the way, we've overlooked a crucial aspect: the emotional toll that living with diabetes exacts every single day.



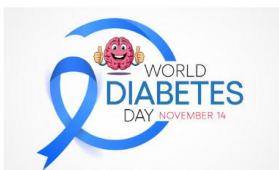
For people with diabetes, life becomes a relentless series of checks and balances. Imagine trying to focus on building a family, advancing in your career, or even enjoying simple moments, all while managing the constant demands of blood sugar monitoring, medication, and diet. Each day brings a new set of decisions, each one critical to maintaining health. **Over time, this ongoing vigilance can chip away at mental resilience, leaving many feeling isolated, exhausted, and trapped.**

But diabetes doesn't just impact those already diagnosed; **millions worldwide remain unaware of their risks.** This struggle is affecting more people every year, as diabetes rates continue to surge globally. The International Diabetes Federation reports that over 537 million adults are now living with diabetes globally—a number projected to rise sharply to 643 million by 2030. Imbalanced lifestyles, such as eating junk foods, lack of exercise, and inadequate sleep, lead people unwittingly toward diabetes. A culture of recklessness or relaxed attitudes towards food and health puts many on a path toward this life-altering condition, making prevention an urgent priority.

Studies show that people with diabetes are twice as likely to experience depression and anxiety, setting up a cycle where stress can worsen blood sugar control, while poor control heightens stress. Despite this link, mental health support is often missing in diabetes care, leaving many to face both the physical and emotional struggles alone. **Dr. M. Viswanathan, celebrated as the "Father of Diabetology" in India, believed that 'effective diabetes care should address not just physical health but emotional well-being too, allowing people to live fulfilling lives despite the diagnosis'.**

We must redefine diabetes care to meet the needs of the whole person, integrating support that strengthens both body and mind. And for those yet unaffected, we must promote health habits that keep diabetes at bay. **Mind Matters dedicates this issue to the mental health struggles faced by people with diabetes and calls for DIAB@EASE—a future where care extends beyond numbers and where mental health and prevention are central to the way forward.**

Diab@ease



Mental health matters

PC: Canva Creation: Sripriya Shaji



-Dr. Sripriya Shaji, Ph.D.

Co-Editor

World Mental Health Day 2024

Celebrating Mental Health 2.0: A Focus on Workplace Well-Being

October 13, 2024 – DAGMHI India hosted a virtual event that focused on the WHO theme of Workplace Mental Health, emphasizing the importance of mental well-being in different professional settings.

RAGMHI Chair Bob Anthony, delivered an inspiring opening address, setting the tone for the day.

Dr. Harish Shetty, a renowned psychiatrist, captivated attendees with his keynote address on the challenges and solutions surrounding mental health at work. Further delving into the topic, **Sangeeta Chandran, Global Head- TCS Wellness Program**, shared valuable insights about the TCS initiative. The session concluded with DAGMHI announcements by Dr. Aabha Pimprikar (President, DAGMHI 3030), shedding light on upcoming initiatives and programs.

A panel discussion moderated by **Rita Aggarwal (Chair-Elect RAGMHI)** provided a platform for young voices to express their perspectives on workplace mental health. Panellists Rtr. Gregor Baum (Entrepreneur, Writer), Rtn. Agastya Munim (Educator, Career Consultant), Devika Gokhale (Psychologist, School Counsellor), Karan Jaswani (Third Generation Business Entrepreneur) and Saachi Pimprikar (Artist, Educator, Designer) discussed about the general workplace stressors, how it impacted them personally, and how they managed these issues. Lastly, they offered suggestions on how organizations should prioritize mental health and create supportive work environments. As the discussions wrapped up, participants were left inspired and motivated to implement positive changes in their workplaces.

Satish Mandora (member, DAGMHI 3030), the Master of Ceremony, gave a foreground to the ultimate need for comprehensive mental health initiatives and highlighted the work District Chapters of RAGMHI, India are doing in the field. Dr. Smita Handotkar (Secretary, DAGMHI 3030), Dr. Bindu Shirsath (Chair, DAGMHI 3132) and Vrinda Walimbe (Chair-Elect, DAGMHI 3131) introduced the speakers Dr. Harish, Sangeeta Chandran and Rita Aggarwal respectively.

The event was wrapped by Sourish Choudhary (Advisor, DAGMHI 3291) with a vote of thanks. **Members of District Chapters 3030 (lead chapter), 3192, 3170, 3131, 3291, 3150, 3132, 3240 and 3141 worked hard to make this event a great success.**

-Dr. Aabha Pimprikar
President DAGMHI 3030 India

Rotary | **Mental Health Initiatives**

District Action Group on Mental Health Initiatives, 3030/303, India Chapters
3030, 3150, 3170, 3131, 3291, 3150, 3132, 3240 and 3141

A Global Virtual Seminar
World Mental Health Day
Theme: Workplace Mental Health

CELEBRATING MENTAL HEALTH 2.0

Date: 13th October 2024
Time: 5:30 PM IST (8 AM ET)

Meeting ID: 697 974 2263
Passcode: DAGMHI

Agenda:

1. Bob Anthony, Chair-RAGMHI (Rotary Action Group on Mental Health Initiatives) Guest of Honour-Welcome Address & Opening Remarks (3 mins.)
2. Dr. Harish Shetty, Renowned Psychiatrist Chief guest: Keynote Speaker (20 mins.)
3. Sangeeta Chandran, Global Head- TCS Wellness Program Guest Speaker & Keynote Speaker (20 mins.)
4. Panel discussion (45 mins.) Workplace Mental Health: Young Perspective Moderator- Rita Aggarwal, Chair Elect-RAGMHI
5. Concluding Session

RSVP: dagmhind3030india@gmail.com

Rotary Cares for Mental Health | rotariycaresformentalhealth

EXCLUSIVE FEATURE BY PADMA SHRI DR. V. MOHAN

THE EMOTIONAL ROLLERCOASTER:
UNDERSTANDING THE MENTAL HEALTH IMPACT OF DIABETES

Dr V. Mohan receiving the Harold Rifkin Award from Dr Jane Reusch, President, American Diabetes Association



Padma Shri Dr. V Mohan revolutionized diabetes research and is ranked among the top 2% of scientists globally by Stanford University. He is the first Indian to receive the American Diabetes Association's Dr. Harold Rifkin Award for Distinguished International Service in Diabetes. In 2012, he was awarded the Padma Shri (the fourth highest civilian award by the Government of India) for his outstanding contributions to public health. He is featured on Wikipedia (https://en.wikipedia.org/wiki/V._Mohan)

We are honored to have an exclusive conceptual article by him for Mind Matters.
- Sripriya Shaji.

UNDERSTANDING THE MENTAL HEALTH IMPACT OF DIABETES

Diabetes is a condition that requires constant management of blood sugars which has an impact not only on the physical health but also on the mental health of the individuals with diabetes. Living with diabetes and managing the condition often leads to a mixture of emotions, often resulting in the fluctuation of moods.

The roller coaster effect starts due to the stress developed right from accepting the disease to following the treatment plan. One of the major reasons for the stress is the fear of diabetes related complications. Feeling of isolation is another important reason that needs to be considered. Let's now understand the common mental health challenges that affect individuals with diabetes.

Common mental health challenges for individuals with diabetes:

Diabetes being chronic in nature, living with this condition poses a lot of mental challenges. **First and foremost, the issue is the fear about diabetes complications.** Anxiety / fear often leads to depression. Stress accompanied by depression gives a feeling of hopelessness and isolation. People with diabetes, out of anxiety, often worry about their fluctuating blood sugars. Some may even have the fear of having side effects from regular and long term medications. Many individuals feel awkward revealing their diabetes conditions in public.

Another major issue is the reduced self-esteem. Individuals with diabetes may try to restrict themselves from participating in public events. They suffer from a feeling of isolation and inadequacy. Additionally, few may struggle with eating disorders as they need to avoid certain foods that increase the blood sugars. Basically, the more they try to control the cravings, the more they become depressed. They might indulge themselves in binge eating followed by guilt leading to depression again. These challenges are real and deserve attention, highlighting the need for effective coping strategies and support.

Coping strategies for managing mental health with diabetes:

Managing mental health while living with diabetes needs a proactive approach. **Awareness is the key.** Understanding the exact status of one's physical health and diabetes condition can help to take control over their mental health challenges. **Connecting with a social support group can create a sense of community.** One can easily share their experiences so that others with the condition can learn from them. These kinds of support groups can bring people with the same kind of negative mental issues together to alleviate the feeling of hopelessness. By sharing the thoughts and experiences, one can have a normalized feeling and be encouraged to open up. Mutually, people find their own ways to come out of the struggle.

Learning stress management techniques like mindfulness and relaxation therapies helps in getting relief from daily pressures. Simple breathing techniques, pranayama, and meditations can be helpful. Doing regular physical activity helps in the production of endorphins which are the 'happy' hormones. These hormones help to reduce stress levels and enhance the mood. Additionally, regular exercises can control blood sugars and prevent complications. Seeking psychological help like Cognitive Behavioural Therapy (CBT) can help to come out of the negative thoughts about diabetes and promote healthier mental conditions.

Communicating openly about the feelings should be encouraged. Talking /sharing about the fear or frustrations with the people whom you love helps to reduce isolation. **Prioritizing self-care over other things is an important aspect one should not underestimate.** Following a balanced healthy diet can calm down the mind. Balancing the portion sizes of cereals, pulses along with fruits and vegetables give adequate energy to face the challenges effectively. Antioxidants from fruits, vegetables, nuts and seeds fight against the inflammations.

In conclusion, emphasizing on physical and mental well-being through effective management techniques can significantly improve the quality of life.

Taking proactive steps help to navigate the emotional fluctuations smoothly while developing resilience against the challenges that come along the way.

F-ACTUAL**Diabetes - IDF 2021 Statistics**

- 10.5% of adults (537 million) between the age 20 to 79 years have diabetes.
- Over 90% of people with diabetes have type 2 diabetes.
- 8.75 million people have type 1 diabetes, 1.52 million are under 20.
- About 21.1 million live births or 16.7%, had gestational diabetes.
- 6.7 million deaths were reported due to diabetes.
- 240 million people are living with undiagnosed diabetes.

Diabetes and Mental Health - CDC Statistics

Diabetes and mental health go hand in hand. Untreated mental health

issues worsen diabetes, at the same time health issues caused by diabetes negatively affect psychological conditions.

- Diabetes patients have 2-3% more chance of depression, 20% more chance of anxiety than non-diabetic people.
- Only 25-50% diabetic patients with depression get diagnosed and avail treatment.
- 33-50% of people with diabetes experience diabetic distress in any random 18-month period.

-Dr. Aabha Pimprikar

Co-Editor, President DAGMHI 3030 India

*IDF- International Diabetes Federation

*CDC- U.S. Centre for Disease Control and Prevention

DUSK AND DAWN: GDM AND FLUCTUATING MOODS

Pregnancy is often a journey of joy and anticipation, but for some mothers, developing gestational diabetes mellitus (GDM)—a type of diabetes that appears during pregnancy—can cast a shadow over this joyful journey. Suddenly, life becomes a balancing act between blood sugar checks, meal plans, and the emotional toll that GDM demands. **In the perinatal (during pregnancy) journey marked by moments of “dusk,” where anxiety and self-doubt creep in, and “dawn,” where strength and resilience light the way.**

Managing GDM is more than just adhering to a strict routine. It involves navigating a whirlwind of emotions that impact both body and mind. **Research has shown that GDM heightens the risk of postpartum depression, revealing how deeply a mother’s mental health is connected to the physical demands of blood sugar regulation.** Achieving a balance in blood glucose levels while staying emotionally grounded is essential for the well-being of both mother and child.

Blood sugar fluctuations in GDM influence mood-regulating hormones, often leading to irritability, stress, or fear of harming the baby. Rising cortisol levels—a stress response—can further disrupt blood sugar control, creating a challenging cycle affecting physical and mental health. **Nutritional neuroscience emphasizes specific nutrients, such as omega-3 fatty acids, B vitamins, and antioxidants, which support brain health and emotional resilience.** Meals rich in lean proteins, fiber, and nutrient-dense foods help manage GDM and stabilize mood and energy.

Many women with GDM feel isolated due to the rigorous lifestyle changes that they must make. Family gatherings, social events, and even everyday meals can become stressful if family or friends don’t understand these needs. **Social expectations or traditional dietary norms can add to this pressure, making it even more challenging to stick to a GDM-friendly lifestyle.**

One challenge today’s mothers often face is navigating an “infodemic” of conflicting information. With endless advice circulating online, it’s often difficult to discern what’s accurate and reliable. **Therefore, healthcare providers play a crucial role, offering trustworthy information and guidance that empowers mothers to confidently manage GDM.**

Building emotional resilience is essential for handling the challenges of GDM. Techniques such as mindfulness and Cognitive Behavioral Therapy (CBT) can provide effective tools for stress management. Additionally, research on the gut-brain axis—the link between gut health and brain function—suggests that consuming foods rich in prebiotics and probiotics, like yogurt and whole grains, can promote a healthier gut and positively impact mood.

By taking a holistic approach—combining medical care, nutritious eating, reliable information, and emotional and social support—mothers can move through the “dusk” and “dawn” phases of this journey with renewed strength. This approach empowers them to create a healthier and brighter experience for themselves and their babies.

-Dr Sripriya Shaji Ph.D

Counselling Psychologist & Nutritionist, Kozhikode

Editorial team

- Rita Aggarwal : Editor
- Aabha Pimprikar : Co-Editor
- Sripriya Shaji : Co-Editor

THE POWER OF POSITIVITY IN DIABETES SELF-MANAGEMENT

Type 2 Diabetes Mellitus (T2DM) is a serious health issue worldwide, leading to many complications that affect small and large blood vessels. Even though precision medicine has improved diabetes care, Diabetes Self-Management Education and Support (DSMES) remains a foundational component for empowering people with diabetes to manage their condition, minimize complications, and improve quality of life. DSMES combines clinical, educational, psychosocial, economic, and behavioural aspects, forming a cost-effective approach that strengthens daily self-care and enhances outcomes.

Apollinaire Bouchardat, regarded as the founder of Diabetology, was instrumental in developing diabetes treatments before insulin was discovered in 1922. His approach emphasized lifestyle modifications, and he was later endorsed by Elliot Proctor Joslin as the first clinician to educate patients on living with diabetes. This pioneering work laid the groundwork for DSMES, highlighting the importance of structured education in managing diabetes.

DSMES: A Comprehensive Model

Diabetes is a complex, lifelong condition that requires patients to make numerous self-management decisions every day. DSMES addresses this need by covering core areas such as:

- Pathophysiology of diabetes
- Healthy eating
- Physical activity
- Medication adherence
- Glucose monitoring
- Complication reduction
- Lifestyle adjustments and healthy coping
- Managing diabetes distress

DSMES also provides targeted support at four critical times: at diagnosis, annually or when targets are not met, upon the occurrence of complications, and during significant life transitions. Support comes from a multidisciplinary team, including physicians, psychologists, psychiatrists, dietitians, and other healthcare professionals, ensuring that individuals with diabetes receive well-rounded care.

The Role of Positivity in Diabetes Management

Positivity in diabetes management goes beyond cheerfulness; it is a mindset that views challenges as growth opportunities, encouraging resilience and better self-care. In managing diabetes, this mindset helps individuals focus on what is within their control, maintain a hopeful outlook, and show self-compassion, which are crucial for long-term adherence to diabetes care routines.

DSMES and Positivity Together

Positivity is essential for blood sugar control, yet many factors—such as financial constraints or lack of support—can challenge maintaining this outlook. DSMES is uniquely positioned to bolster positivity by providing education and emotional support. Through DSMES, patients can:

- Learn Positive Practices:** DSMES teaches habits like gratitude, mindfulness, and reframing negative thoughts.
- Handle Stress Better:** DSMES strengthens positivity and gives tools for managing daily stress.
- Build Support Systems:** DSMES helps patients connect with others, building a support network that reinforces healthy habits.

Together, DSMES and positivity form a strong support system for

managing diabetes and improving well-being. By a proactive, positive mindset, DSMES helps to reduce negativity and enables a sustainable approach in the management of diabetes

**-Dr. Kannan Natarajan,
Consultant Diabetologist,
Chennai**



PC: Beckydorner.com

BUILDING YOUR SUPPORT SYSTEM

The role of family, friends, and the broader community is pivotal in transforming the way individuals with diabetes experience their condition. From tackling stigma to building self-confidence and enhancing quality of life, support networks play a crucial role in shaping a positive, empowered journey for those living with diabetes.

Stigma: The Invisible Burden

One of the most harmful aspects of living with diabetes is the stigma that often surrounds the condition. Misconceptions—such as the idea that people "bring it on themselves" by making poor lifestyle choices—can lead to feelings of shame, guilt, and isolation. People with diabetes may be hesitant to talk about their condition for fear of judgment or exclusion. A strong support system can challenge this stigma head-on. When family, friends, and community members are educated about the complexities of diabetes, they can become advocates for reducing stigma.

Family: The Foundation of Support

The role of family goes beyond practical tasks such as preparing healthy meals, reminding about medications, and encouraging physical activity; it extends into providing the emotional encouragement that helps individuals stay motivated. This emotional bond is particularly crucial, as it fosters a sense of security and belonging.

Friends: A Vital Emotional Anchor

Research has shown that social support from friends is linked to better self-management of diabetes, reduced stress, and improved mental health. Moreover, friends who understand the daily challenges that come with diabetes can help alleviate the emotional strain that often accompanies chronic health conditions, making the journey feel less overwhelming and more manageable.

Community: Empowering and Educating Pillars

Through community groups, diabetes education classes, and local support networks, individuals with diabetes have access to spaces where they can share their experiences, gain insights from others, and find a sense of solidarity.

The Diabesties Foundation's 'Back to Basics' project where the educators with theoretical knowledge as well as lived experience provide 1-on-1 sessions which are designed to simplify diabetes management for individuals especially those with Type 1 Diabetes and their caregivers. The Diabesties Foundation in fact is a global movement. Research strongly supports the notion that social integration has a significant impact on health outcomes. Studies have demonstrated that people with diabetes who engage in community support groups experience better glycemic control, reduced levels of depression, and an enhanced quality of life.

A 2017 study published in *Diabetes Care* found that individuals who felt supported by their social circles were more likely to adhere to medication regimens, maintain healthier lifestyles, and report a higher quality of life.

Educating the Masses: A Shared Responsibility

Public health campaigns, social media outreach, and in-person education can raise awareness about the challenges faced by individuals with diabetes.

Living with diabetes is a lifelong journey, but it doesn't have to be a lonely one. It is up to all of us to create environments that embrace those living with diabetes and empower them to live without fear or judgment.

-Malvika Fulwani
Clinical Dietitian,
Certified Diabetes Educator



PC: mywellbeing.com

CHILDREN AND DIABETES: ADDRESSING THE EMOTIONAL NEEDS OF YOUNG WITH DIABETES

Type 1 diabetes (a condition that occurs in childhood) is always an unexpected intruder in a child's life and more so into the family. At the first diagnosis, the parents and child come to the treating team with questions starting from "Why me? Why our child?" It becomes the clinician's responsibility to listen, understand the family's burden, address doubts, and clarify that each patient is unique, thus requiring individualised management. How this task is approached at the first visit paves the long path of their journey with diabetes.

Acceptance of the diagnosis is followed by the challenge of daily injections and testing. The message that **"the disease has treatment, and with adherence, a normal life is possible"** is essential. Showing local role models often strengthens this message. The cost adds stress, especially for the breadwinner. Hence, understanding this as a chronic disease, management should be individualised, and complications discussed along with appropriate preventive measures.

Parents should inform the school management about the child's health condition but are reluctant to do so. This is important for the child's safety and handling of emergencies which can happen anytime, in case an insulin dose is skipped by the child or a meal is skipped. However because of the taboo that still exists, parents fear more for social disapproval and labelling rather than the child's safety. It is common for doctors to encounter emergency cases of school going kids with diabetes.

Diet misconceptions and FAD diets are ongoing challenges. Dietary advice should be culturally acceptable and adaptable to meals at home or school. **Stress and coping difficulties arise at different stages.** Psychiatric disorders are no more common than in the general population, but anxiety, denial, anger, and depression are prevalent early in diagnosis. The self-care demands, communication difficulties, and the need for privacy all add to 'diabetes distress'. Phobias—fear of needles, hypoglycemia, and complications—are common, as are eating disorders in adolescents.

Marriage is a concern for both boys and girls with type 1 diabetes. Proper communication before marriage is critical. I recall a girl whose hidden diagnosis led to misunderstandings and divorce; later, with counselling, she found support in an arranged marriage. Pregnancy requires strict glycaemic control for the best maternal and fetal outcomes. Boys may face unique challenges in career selection and settling out-stations. Proper education, nutritional support, and mental health support for families and siblings are essential. Type 1 diabetes burnout and depression must be identified early to enable these children to achieve life goals and lead a near-normal life, which is absolutely possible.



PC: kidshealth.org

-Dr Chandni R
Professor of Medicine, Government Medical College,
Kozhikode

**We congratulate Dr. Chandni on being conferred the
RSSDI Woman Diabetologist Award of 2024.**

RSSDI: Research Society for Study of Diabetes in India

MIND OVER SUGAR: MANAGING STRESS & ANXIETY IN DIABETES

Metabolic diseases are increasingly common due to fast-paced lifestyles and environmental pressures. Diabetes, a condition deeply impacted by lifestyle, is especially influenced by diet and mental health. There's a saying, "You are what you eat," and while this is true, what you eat also shapes how you think and behave. High-sugar foods, while providing a quick energy boost, are linked to an increased risk of mental health disorders, including anxiety and depression.

The Mind-Body Connection with Diabetes

The mind-body connection highlights the significant role our mental state plays in physical health. This is especially relevant in diabetes, where mental health can directly impact blood sugar control. During stress, the body releases cortisol and adrenaline, raising blood glucose to provide energy for a "fight or flight" response. However, for those with diabetes, these glucose spikes are harder to manage.

Effects of Stress and Anxiety on Diabetes

Stress and anxiety make diabetes management difficult as it impacts glucose levels and disturbs self-care routines. Stress-induced glucose spikes can lead to emotional eating and neglecting physical activity, both of which hinder diabetes management. Over time, chronic stress and anxiety can worsen diabetes-related complications. Additionally, mental stress may decrease motivation for regular glucose monitoring and adherence to treatment, highlighting the importance of mental health support in diabetes care.

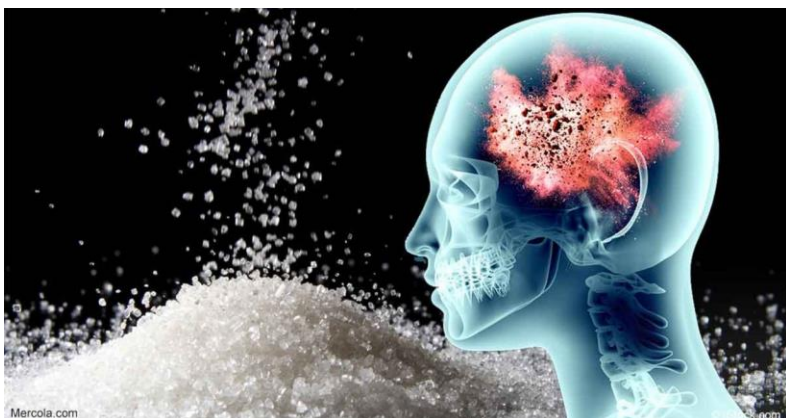
Strategies for Managing Stress and Anxiety in Diabetes

Managing diabetes effectively involves mental resilience and emotional wellness. Here are essential strategies:

- 1. Building Self-Efficacy:** Confidence in one's ability to manage diabetes can improve resilience to stress. Through education, setting achievable goals, and self-monitoring, individuals can boost their mental health and self-management skills.
- 2. Relaxation Techniques:** Techniques like Progressive Muscle Relaxation (PMR) and mindfulness reduce physical and mental tension. Mindfulness-based stress reduction programs have been shown to improve both mental health and blood glucose control.
- 3. Cognitive Behavioral Therapy (CBT):** This therapy helps modify negative thought patterns, promoting healthier behaviors. CBT has been shown to improve coping skills and support stable glucose levels.
- 4. Healthy Lifestyle Choices:** A nutrient-dense diet and regular exercise stabilize blood glucose and reduce mood swings. Physical activity also relieves stress and improves insulin sensitivity.
- 5. Family Support:** Family members can encourage diet adherence, medication routines, and regular physical activity, which contribute to effective diabetes management and mental well-being.

-B. Elayaraja

Counseling Psychologist, Chennai



PC: linkedin

NOURISHMENT BEYOND FUEL: THE ROLE OF GLYCEMIC FRIENDLY DIET IN MENTAL HEALTH

"Food is not merely fuel for the body; it is nourishment for the mind. A well-balanced diet can be pivotal for emotional resilience, particularly for those managing chronic conditions such as diabetes." by Dr. Sowmya S, Psychologist.

Recent research underscores the glycaemic-emotional and gut brain-inflammation connections, which highlights the significance of nutrition in fostering emotional resilience. Blood sugar stability can be instrumental in reducing mood swings, irritability, and anxiety, thereby establishing a positive cycle of physical and mental wellness.

Recent research underscores the glycaemic-emotional and gut-brain-inflammation connections, which highlights the significance of nutrition in fostering emotional resilience. Blood sugar stability can be instrumental in reducing mood swings, irritability, and anxiety, thereby establishing a positive cycle of physical and mental wellness. Conversely, fluctuating blood glucose levels, especially after consuming high-glycemic foods, may lead to spikes and crashes, often triggering fatigue, irritability, and mood shifts. Low-grade chronic inflammation has been linked to alterations in these neurotransmitters and is associated with an increased risk of depression in adults. **A pro-inflammatory dietary pattern (diet high in glycaemic index and load like sugar, refined flour along with saturated fats, red and processed meats, artificial additives) exacerbates inflammation and oxidative stress, impairing brain function and contributing to a host of mental health challenges.**

In contrast, **anti-inflammatory diets**, such as the Mediterranean diet rich in whole grains, fruits (exception of bananas and processed dates), vegetables, berries, fatty fish, leafy greens, and nuts and **plant-based low-glycaemic index diet** including foods such as whole grains (Oats - rolled/steel cut, barley, quinoa, long grain rice, legumes, vegetables, and healthy fats), provide a slow, sustained release of energy, reducing the likelihood of these sudden mood shifts and promoting a more stable mental state. By avoiding rapid glucose surges, individuals can foster a more consistent and balanced emotional outlook.

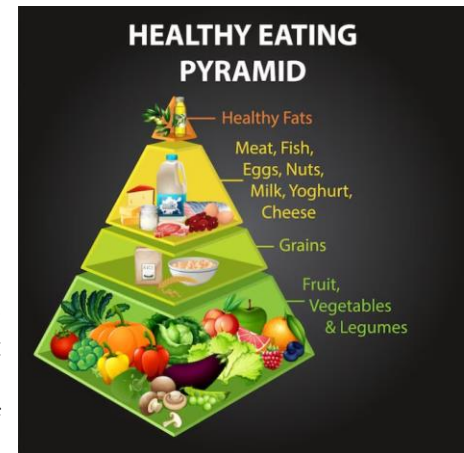
It is interesting to note that "Millets are nature's gift to both body and mind—a simple grain that nourishes deeply, providing the strength to thrive in health and balance." Choose in moderation (low glycaemic index) unpolished millets like Barnyard and Foxtail Millet for meal preparations rather than in porridge consistency for glycaemic benefits. **Nutrient-rich foods**, including those high in magnesium (spinach, pumpkin seeds, almonds, whole grains, legumes, fatty fish etc), omega-3 fatty acids (flax seeds, fenugreek seeds, chia seeds, greens), and fiber, **can enhance both metabolic control and mental health.**

The emerging field of psychobiotics, encompassing pre and probiotics, reveals the gut microbiota's role in influencing neurotransmitters like serotonin and dopamine are essential to mood, behavior, and cognitive functions.

Nutritional choices, thus, play an indispensable role in supporting emotional health, especially for those with diabetes, where managing blood sugar and inflammation is vital.

-Dr. Meenakshi Bajaj Ph.D, RD

**Chief Dietitian, TN Govt Multispeciality Hospital,
Chennai**



PC: freepik.com

PRESERVING MENTAL HEALTH IN DIABETES MELLITUS

As we approach the brink of the first quarter in the 22nd century, global health statistics reflect the growing magnitude of lifestyle diseases and comorbid mental health conditions. In India, specifically the prevalence of diabetes mellitus (adult onset – type II) has grown from 7 crores in 2019, to a whopping 10.1 crores in 2023, amounting to 11.3% of our population. The prevalence of pre-diabetic conditions, undiagnosed diabetes, hypertension, and teen-onset diabetes have also increased hand in hand.

The prognosis of this statistic further worsens by the steep rise in mental health conditions, commonly anxiety, depression, bipolar disorder, and substance use disorders, along with sleep disorders, eating disorders and stress-related disorders. Studies have established the bidirectional nature of the relationship between diabetes and neurotic mental health conditions. Depression is twice as prevalent in this group compared to the common population, and along with other mental disorders complicates the long-term course and recovery of diabetes.

In such a scenario, early diagnosis and effective treatment of both diabetes and psychiatric conditions simultaneously, plays the key role in minimizing the detrimental impact of each disorder on patients' lives. **Depression and diabetes are both invisible diseases, often diagnosed after they have damaged the organs noticeably and beyond molecular level. Most of this damage is irreversible, and hence prevention of harm remains to be of utmost importance.**

Regardless of age, a healthy lifestyle is the best medicine to keep a doctor away. Given the rising incidence of teen-onset diabetes and ischemic cardiovascular episodes below 40 years of age, it is prudent to develop a daily routine right from school-going age, incorporating square meals of balanced food, regular physical exercise, mindful relaxation or meditative practices, timely travel breaks, spending time with nature. **Managing stress on a daily or weekly basis is more essential than fixing the breakdowns during acute crises.** This helps increase our physical endurance in addition to mental resilience and keeps the stress hormonal response from spiking frequently.

Red flags in physical parameters such as obesity, drinking alcohol, smoking, family history of cardiac events, or concurrent hypertension must be addressed in time. The individual must find the motivation to normalise physical health status much before lab tests can detect abnormalities. Patients diagnosed with diabetes often fear episodes of hypoglycaemia, distress, and death. In such anxiety states, taking professional help from therapists (CBT, counselling) and/ or psychiatrists (anti-anxiety medication) can be rewarding. **It is important that patients and their families acknowledge the presence of comorbid mental disorders and accept appropriate treatments for the same before they become overwhelming.** A team of doctors, educators, counsellors, and significant others, can work together with diabetic patients to set realistic health goals and devise an accountable plan to attain desired results.

Like any other health condition, prevention stands to be better than cure in tackling the difficult duo of diabetes and depression.

-Dr. Bhakti Sisodia
Associate Professor in Psychiatry,
Udaipur



PC: American Diabetes Association



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 mindmatterseditor@gmail.com

YOGA: HARMONIZING DIABETES AND MENTAL HEALTH

In the yogic realm, harmony between the mind and body is not merely a goal but an essence. For those managing diabetes, this ancient science offers profound guidance, a pathway to balance not just physical health but mental peace. **Diabetes, often viewed as a physical ailment, silently weaves into the mental and emotional fabric, creating a dissonance that yoga, with its holistic approach, can profoundly soothe.**

Yogic practices begin with *Pranayama*, the art of controlled breathing. By harmonizing the breath, one can harmonize the energies within, aligning the mind and body. Pranayama practices, such as *Bhastrika* (bellows breathing) and *Bhramari* (humming bee breath), and *Anulom Vilom* (alternate nostril breathing) **guide the breath into a rhythm, calming the nervous system.** The benefits are more when these pranayamas are practiced with *tribandh* (contracting specific muscles). With calmness comes control, as stress-induced spikes in blood sugar ease. In yoga, breath is the life force, a tool that directly influences the mind and, thus, impacts mental stability in diabetes management.

Yoga sees the body as a temple, with each *Asana* (posture) as an offering to inner balance. *Ardha Matsyendrasana* (Seated Spinal Twist), *Paschimottanasana* (Seated Forward Bend) and *Bhujangasana* (Cobra Pose) along with *Ustrasana* (Camel Pose) work at the physical level, gently massaging internal organs, like stomach, small intestine, liver and pancreas. The yogic belief is that **consistent practice not only enhances blood circulation but rekindles the body's natural rhythms, supporting insulin functionality and easing blood glucose fluctuations. Improved metabolism, reduced stored fat from the body, and a controlled appetite can be achieved by regular practice of the *Jalad Surya Namaskar* (Fast paced Sun Salutations).**

Moving beyond the physical, yoga emphasizes on chanting *Omkar* and *Dhyana* (meditation) as the gateway to mental peace through improved concentration. **For those living with diabetes, constant vigilance can bring about stress, leading to anxiety or mental fatigue.** In yogic philosophy, **meditation restores the mind to its natural state of peace.** With a daily commitment to *Dhyana*, one learns to witness thoughts without attachment, freeing the mind from cycles of fear and worry often triggered by diabetes. **Vibrations of *Omkar* aid in better functioning of the pituitary gland.**

Yogic sages also spoke of *Sattvic living*, a diet and lifestyle imbued with **purity and balance, which aligns with diabetic needs.** Eating mindfully, choosing fresh and nourishing foods, and viewing food as energy rather than a source of indulgence creates a yogic perspective that supports both diabetes management and mental clarity.

In the yogic view, healing is not only physical but a journey to rediscover balance within. **Yoga is a lifestyle.** Through *Ashtanga Yoga* (eight limbs of the discipline) i.e. Pranayama, Asana, Dhyana, Sattvic principles and few others, yoga provides not just relief but a path to inner harmony, transforming the challenges of diabetes into opportunities for holistic well-being. **One must practice Yoga consistently and under expert guidance.**

-Jishnu S. R.
Yoga Teacher, Vadakara



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