Footnotes for the Infographic

The Grounding and Practice of Integrative Mental Health

from Onward Mental Health

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[1] **Causative factors of mental distress**. Helen Mayberg, MD, a professor of psychiatry and neurology at Emory University, indicates that "mental illness diagnoses are often catchall categories that include many different underlying malfunctions. Mental illnesses have always been described by their outward symptoms [not causes]… , a depression diagnosis is likely to encompass people with many unique underlying problems [that] likely the need different specific interventions."

Jerome Wakefield, PhD, DSW, a professor of social work and psychiatry at New York University, believe that too much emphasis is being placed on the biology of mental illness and ignoring environmental, behavioral and social factors that contribute to mental illness may be overlooked. "By over-focusing on the biological, we are doing patients a disservice," Wakefield says. "Call it a mental disorder if you want, but there's no smoking-gun malfunction in your brain."

Richard McNally, PhD, a clinical psychologist at Harvard University and author of the 2011 book "What is Mental Illness?" notes, mental illnesses are likely to have multiple causes, including genetic, biological and environmental factors. He indicates that "an increasingly nuanced and sophisticated appreciation for the multiple perspectives" is needed.

(a) Weir K, The roots of mental illness, American Psychological Association, 2012, https://goo.gl/r8WLx7.

(b) Hanaway P, Form Follows Function: A Functional Medicine Overview, Perm J. 2016, PMCID: PMC5101104.

[2] **Bio-individuality**. Dr. William Walsh, PhD, FACN indicates. "Except for identical twins, each human being has unique biochemistry resulting in quite diverse nutritional needs… For example, some of us are genetically suited for a vegetable-based diet and others are not. Some persons can satisfy their nutritional needs by diet alone and others must have nutritional supplements to overcome genetic aberrations. Because of genetic differences in the way our bodies process foods, most of us are quite deficient in certain nutrients and overloaded in others. Even with an ideal diet, most of us have certain nutrients that are at very low levels with many times the RDA required to achieve a healthy balance..."

(a) Walsh W, Biochemical Individuality and Nutrition, Walsh Research Institute, https://goo.gl/Z2b56Q.

[3] **Biomedical Wellness options**. There are commonly-accepted wellness basics for your body, mind, and spirit. These can help minimize and avoid mental health issues—yet everyone can benefit from them. Exercise, nutritious eating, and gut-health are a few important basics. People often overlook the fact that what is healthy for the general population can have a profound effect on one person's mental health.

[4] **25%+ of mental distress caused by physical issues**. Over one-quarter of people with mental health issues have an underlying physical issue that causes or exacerbates their mental disorder. For lower socioeconomic status individuals, the figure approaches one-half. Psychotropics aren't designed to address these underlying physical issues, so relying exclusively on them impedes recovery.

(a) Koranyi EK et al, Physical illnesses underlying psychiatric symptoms, Psycho Psychosom. 1992, PMID: 1488499, http://goo.gl/V9Wi23.

(b) Koran L, MEDICAL EVALUATION FIELD MANUAL, 1991, https://goo.gl/nBpmZK, copied 10/30/2013.

(c) Hall RC, Physical illness manifesting as psychiatric disease. II. Analysis of a state hospital inpatient population, Arch Gen Psychiatry. 1980, PMID: 7416911.

[5] **Lab tests help uncover physical causative factors**. Mental health lab tests look for markers that may identify physical causes of mental health symptoms. A robust set of blood and urine tests should be run, with hair and cerebral spinal fluid potentially evaluated. Regrettably, baseline testing of numerous important physical ailments is not as common as it should be for people diagnosed with serious mental illness. Lab tests should be run by labs with CLIA certification. Often a baseline test panel is the first choice, and additional tests are run as needed.

(a) Wagner C, Biomedical Test Panels, Onward Mental Health, 2018, https://goo.gl/yDs4sX. This document provides a listing of the most common biomedical tests run for mental health.

[6] **Targeted care based on your unique lab results**. Biomedical care can take many forms to address hormonal irregularities, nutrient deficiencies, gut ill-health and more. Dr. William J. Walsh, PhD is a leading voice in the field of Nutrient Therapy which considers many biological causative factors for mental health.

The Walsh Research Institute, which he founded in 2008, works to unravel the biochemistry of mental health issues through research and the training of integrative mental health practitioners. The institute has amassed what is probably the world's largest database of mental health laboratory analyses: more than three million records from blood and urine samples of more than 30,000 people with mental health issues. This database shows that umbrella diagnoses (like depression or bipolar) are composed of multiple subtypes (called biotypes), with each biotype requiring a different nutrient response.

The institute's research reveals six primary nutrient imbalances that are most commonly found in people with mental health symptoms:

- Copper overload
- Vitamin B6 deficiency
- Zinc deficiency
- Methyl/folate imbalance
- Oxidative stress
- Amino Acid imbalance

Nutrient Therapy based on biotypes has produced impressive results. After six months of targeted nutrient therapy, 70% of patients with behavior issues, attention-deficit hyperactivity disorder, and depression reported feeling fine without psychotropic medication. The remaining 30% needed some psychotropics to avoid symptoms, but at lower doses than previously.

The results for schizophrenia and bipolar also offer hope: 5% reported the ability to withdraw completely from psychotropics after Nutrient Therapy, and many others indicated that a combination of nutrient therapy and greatly reduced psychotropics eliminated their psychosis and allowed them to return to independent living.19 Three-quarters of those with schizophrenia were able to reduce their medication when they combined it with Nutrient Therapy.

[7] **Psychosocial causative factors**. Psychosocial therapies examine thoughts, emotions, motivations, and self-identity, seeking to understand and address underlying trauma, stress, grief, obsessive/unhelpful thinking, and more. One strong example of the causative nature of psychosocial factors is trauma. Trauma is not only associated with PTSD, but also with psychosis, and OCD (30-82% of people with OCD have experienced trauma).

Read J et al, Child Maltreatment and Psychosis: A Return to a Genuinely Integrated Bio-Psycho-Social Model. Clinical, 2008, Clinical Schizophrenia, https://goo.gl/nMLrx4;

Shevlin et al, Cumulative Traumas and Psychosis: an Analysis of the National Comorbidity Survey and the British Psychiatric Morbidity Survey, Schizophr Bull. 2008, PMCID: PMC2632373;

Read J, 2013, Childhood Adversity and Psychosis: From Heresy to Certainty, https://goo.gl/5LYCQA;

Read J, Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications, Acta Psychiatr Scand. 2005, PMID: 16223421.

Dykshoorn K, Trauma-related obsessive–compulsive disorder: a review, Health Psychol Behav Med. 2014, PMCID: PMC4346088.

[8] **Psychosocial therapies**. Psychosocial Therapies can reduce or eliminate symptoms, improve functioning in the community, decrease relapse, and reduce hospitalizations. Research shows them effective across all diagnoses including in cases of persistent mental distress. They have the added benefit of minimizing exposure to the risks and side effects of psychotropics. Cognitive Behavioral Therapy is one of the most common. Information on them is widely available.

[9] **Peer support**. Peer support is given by those who are well-along their own journeys to mental health recovery. With their unique "experts-through-experience" credibility, peers can serve as practical and inspiring role models, providing invaluable first-hand experience and counseling. Peer support often uses self-management approaches.

Wikipedia, Peer Support Specialists, http://en.wikipedia.org/wiki/Peer_support_specialist.

[10] **Supportive housing, employment, education**. There is a patchwork of public and private programs to provide this assistance. For instance, housing includes:

- Emergency housing. Many communities have homeless shelters run by civic or faith-based organizations. Housing may also be available for youth, veterans, and individuals fleeing domestic violence.
- Housing Choice Vouchers. Housing Choice Vouchers (also known as Section 8 vouchers) assist low-income families, the elderly, and the disabled. The vouchers subsidize a portion of the rent for conventional leases, if the housing meets program guidelines. Section 8 vouchers are administered locally through public housing agencies, but they are funded through the U.S. Department of Housing and Urban Development (HUD). Eligibility is primarily based on income.
- Supportive housing. Supportive housing combines housing and services (including mental health services). It is especially helpful for the homeless or those with very low incomes and/or serious persistent issues, including addictions, mental health issues, and HIV/AIDS. The goal is to maximize independence and stability, so rents are set at affordable levels.
- Group Housing. Group housing provides a safe home for people under one roof, often with integrated support services to help with daily living, food, and other support.

[11] **Trauma-informed care**. According to SAMHSA's concept of a trauma-informed approach, it is a program, organization, or system that:

1. *Realizes* the widespread impact of trauma and understands potential paths for recovery;
2. *Recognizes* the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
3. *Responds* by fully integrating knowledge about trauma into policies, procedures, and practices; and
4. Seeks to actively resist *re-traumatization*.

A trauma-informed approach can be implemented in any type of service setting or organization and is distinct from trauma-specific interventions or treatments that are designed specifically to address the consequences of trauma and to facilitate healing.

SAMHSA, Trauma-Informed Approach and Trauma-Specific Interventions, https://goo.gl/PJofR1.

[12] **Spiritual sensitivity and spiritual emergence**. Each person in mental distress regards the challenge differently. Some view it as a chemical imbalance in the brain; others regard it as a sickness, a spiritual crisis, a set of strong emotions out of control, or an opportunity for relief and growth. Supporters aren't helping in the recovery if they insist that their loved-one accepts one framework of understanding.

The best way we can assist in mental health recovery is to understand the person's perspective. Their recovery must be grounded in their perspectives and needs. To force another viewpoint is like standing far away and demanding, "Come here!" instead of going close and asking, "How can I help?" The first approach rarely succeeds. The second is one of the best ways to express respect. Since a person's perspective is often ground in their culture, communities, and spiritual/religious outlook, understanding and relating to these influences is important.

Beyond simply honoring someone's spiritual perspective, there is a growing body of work that views certain non-conventional consciousness states not as mental illness, but as spiritual growth or emergence. It can sometimes be extremely disruptive and considered a Spiritual Emergency that can carry many of the same symptoms as psychosis. The term Spiritual Emergency was coined in 1980 when Stanislav Grof, MD, and Christina Grof and some of their work on spiritual emergence is included in the DSM. These crises/emergencies refer to natural occurrences in personal evolution in which a person feels disoriented and overwhelmed for a period of time by overwhelming spiritual experiences beyond the realm of the intellect.

[13] **Personhood and self-worth**. NAMI indicates "Someone with low self-esteem has negative feelings about themselves, believing that they are not worthy of love, happiness or success. With research linking low self-esteem to mental health issues and poor quality-of-life, this is a potentially dangerous way to live. Building self-esteem is crucial. When we learn to love ourselves, we strive for a better life—a happier relationship, a more fulfilling career or recovery from addiction. But changing the deep-rooted feelings we have about ourselves isn't easy and often experts recommend some form of therapy (usually Cognitive Behavioral Therapy) to get to the underlying reasons behind our negative thoughts about ourselves.

The key then is to challenge and adjust these negative thoughts into more positive ones. Learning to value and care for your mind and body through a healthy lifestyle is also important. Good diet, exercise and meditation can be the first stepping stones in reclaiming physical and emotional confidence. Fully engaging with those we love is important. Feeling loved and supported (and being able to offer love and support in return) is a wonderful way to start increasing self-esteem. If you don't have any immediate friends or family then consider joining a support group or even volunteering. Helping others is a great way to help yourself."

Gold A, Why Self-Esteem Is Important For Mental Health, NAMI, https://goo.gl/HBgdb7.

[14] **Self-determination and mental health**. Choosing your own therapies is an act of self-determination, a cornerstone of recovery. One study concluded that the ability to make therapy choices was the leading factor in good mental health outcomes (a-Ohio). The British Psychological Society underscores the importance of choice in psychiatric care (b-Cooke). Self-determination is recognized as a critical component in the 2nd stage of the five stages of recovery (Wagner-Choices in Recovery). In fact, a person's right to self-determination is considered one of the fundamental measures of enlightened health care (c-Tomes). Both SAMHSA (d-SAMHSA) and the World Health Organization (e-WHO) regard self-determination in therapy choice as vital, even in times of acute distress.

(a) Ohio Department of Mental Health Office of Program Evaluation & Research, Toward Best Practices: Top Ten Findings from the Longitudinal Consumer Outcomes Study, 1999, http://goo.gl/cULzSM.

(b) Cooke A (editor), Understanding Psychosis and Schizophrenia, British Psychol Society, 2014, http://goo.gl/b1t322. *"We need to stop telling people what to do and start supporting them to choose… Professionals need to acknowledge that the only way someone can find out for sure what helps them personally, is to try."*

(c) Tomes N, The Patient As A Policy Factor: A Historical Case Study Of The Consumer/Survivor Movement In Mental Health, Health Aff May 2006, PMID: 16684736, http://goo.gl/KQ763r.

(d) SAMHSA, Working Definition of Recovery, https://goo.gl/H8wStv. *"Self-determination and self-direction are the foundations for recovery, as individuals define their own life goals and design their unique path(s) towards those goals."*

(e) World Health Organization, Promoting Mental Health, WHO, 2004, https://goo.gl/BDuC4v. *"…The personal, social, and environmental factors that determine mental health and mental illness… provides a safe and secure environment, good housing, positive educational experiences, employment, good working conditions… allows self-determination and control of one's life…"* **World Health Organization, User empowerment in mental health – a statement by the WHO Regional Office for Europe, 2010, https://goo.gl/JRu2Ys.** *"…At the individual level, users and carers need to take back control by… having a real say in the treatment and care that they receive, and planning for crises so that they can exert an influence even at times of acute distress (e.g. through advance statements)…"*

[15] **Self-compassion**. Self-compassion means being kind and understanding to ourselves when we suffer, fail, or feel inadequate. Having the ability to feel self-compassion aids mental health. We must respect, value, and love ourselves, flaws and all, while recognizing that no one is perfect. It is an unselfish self-love. It doesn't push aside negative thoughts; it accepts them and lets them pass, a perspective of Mindfulness.

Studies show that self-compassion reduces anxiety and depression. A key feature of self-compassion is the lack of self-criticism, a predictor of anxiety and depression. Self-compassion is an important source of happiness and a sense of psychological well-being, life satisfaction, and feelings of social connectedness. It is also strongly associated with emotional intelligence, happiness, optimism, and resilience.

(a) Neff K et al, Self-Compassion: What it is, what it does, and how it relates to mindfulness, University of Texas at Austin, pre-publish, http://goo.gl/hQmHz9.

(b) Blatt, S J, The destructiveness of perfectionism: Implications for the treatment of depression. Amer psychologist,1995.

(c) BARNARD, LK et al, The relationship of clergy burnout to self-compassion and other personality dimensions. Pastoral Psychology, 2012.

(d) Heffernan, M et al, Self-compassion and emotional intelligence in nurses. International Jl of Nursing Practice, 2010.

(e) Neff KD, Self-compaassion, Self-Esteem and Well-Being, Social and Personality Psychology, 2011, http://goo.gl/hVooiG.

(f) Germer C et al, Self-Compassion inClinicalPractice, JOURNAL OF CLINICAL PSYCH: IN SESSION, 2013, http://goo.gl/JWQxMW.

(g) Leary, M. R. Making sense of self-esteem. Current Directions in Psychological Science, 1999.

(h) Aberson, C. et al, Ingroup bias and self-esteem: A meta-analysis, Personality & Social Psychol Rvw, 2000.

(i) Hogg, MA et.al., Social identifications: A social psychology of intergroup relations and group processes, 1988, London: Routledge.

[16] **Relationships, companionship, love**. Building strong social memberships in a group provides a sense of "belonging", which is vital in helping clinically depressed patients recover and prevent relapse. In fact, end-of-life conversations affirm that that many people count their relationships as the most meaningful part of their lives. For women, networks of friends (but not family) are most important for mental health. For men, networks of friends and family both appear to improve mental health. For those with mental health issues, one of the crucial themes for quality of life is a sense of belonging achieved principally by positive quality relationships and a lack or rejection of stigma.

Companionship is found in close relationships with friends or family where there is mutual acceptance and trust. Adults who are isolated and lack friends and companionship have the worst psychological outcomes. In fact, adults who had emotionally supportive and close relationships were four times more likely to overcome their depression than those without such relationships. A person with mental health issues describes true *Human Companionship* as "being able to talk to someone without fear of being judged, made fun of, lectured… yelled at, bossed, disregarded, or invalidated."

Hearing Voices Network (HVN) is a collaboration of support groups for people who hear voices. The movement challenges the notion that hearing voices is necessarily a symptom of mental illness. Instead, the network regards voices as meaningful and understandable, although unusual. Instead of a clinical group or treatment program, HVN is a social group that comes together to discuss common issues. The United Kingdom Hearing Voices Network maintains that developing a compassionate relationship with troubling voices is helpful, suggesting, "Softening feelings toward the tormenting voice can be reflected back to the voice-hearer, bringing a starting point for the alleviation of suffering.

(a) Hasiam A, Social groups alleviate depression, preliminary from Science Daily, 2014, http://goo.gl/lkbQnG.

(b) Garfield C, Seven Keys to a Good Death, Greater Good Science Center, 2014, copied 1/25/17, https://goo.gl/MPN25O.

(c) Connell J et al, Qualityof life of people with mental health problems: a synthesis of qualitative research, BioMed Central, 2012, http://goo.gl/1x1XkU.

(d) Economic and Social Research Council, Mental Health and Social Relationships, 2013, http://goo.gl/umi6Cu.

(e) Fuller-Thomson E et al, Flourishing after depression: Factors associated with achieving complete mental health among those with a history of depression, Psychiatry Res. 2016, PMID: 27267442.

(f) Jones KC, HAWMC Day 6 - Emotional Safety, 2015, http://goo.gl/qjdI0O.

[17] **Peer engagement. Open Dialogue, Hearing Voices**. Peer engagement is based on joining with others in mental distress to help each other and establish a measure of companionship. Support groups are one example.
Open Dialogue is an early-intervention family/team-oriented approach for dealing with psychosis that could be one of the most exciting advances in the care of psychosis. Using a language grounded in the patient's perspective, a strong and supportive network of people will speak with the individual suffering with psychosis. Everyone involved is present with the therapist and the person in distress. The central emphasis of OD focuses on "being with the individual in crisis" more than "solving the immediate symptomatic problem." Dialogue helps break through the sense of isolation that individuals feel when their experience seems to defy normal description.

A five-year study found that OD reduced the need for psychotropics; 82% did not have any residual psychotic symptoms and 86% had returned to their studies or a full-time job. Longer term studies found that those receiving antipsychotics are over three times more likely to be on disability income than those receiving OD. In a small US OD

pilot, half of the participants stopped using antipsychotics and saw outcomes similar to those who remained on drugs.

(a) Corstens, D., May, R. & Longden, E. (2011). Talking with voices. Copied Dec 2014 from http://goo.gl/EtDkfX.

(b) Corstens D et al, Talking with voices: Exploring what is expressed by the voices people hear, Psychosis: Psychological, Social and Integrative Approaches. Advance online publication, 2011.

(c) Seikkula J, The Open Dialog Approach to Acute Psychosis Its Poetics and Micropolitics, Fam Proc, 2003, PMID: 14606203.

(d) Dialog Practice, www.dialogicpractice.net/open-dialogue%E2%84%A0/, copied 10/29/2013.

(e) SEIKKULA J et al, Five-year experience of first-episode nonaffective psychosis in open-dialogue approach: Treatment principles, follow-up outcomes, and two case studies, Psychotherapy Research, 2006, https://goo.gl/7g4N56.

(f) Steingard S, Antipsychotics: Short and Long-Term Effects, Mad In America Education, video #3, copied 1/27/17, https://goo.gl/lix6s4.

(g) Gordon C et al, Adapting Open Dialogue for Early-Onset Psychosis Into the U.S. Health Care Environment: A Feasibility Study, Psychiatry Online, 2016, https://goo.gl/L6yGQB.

[18] **Meaning and mental health**. Leading a life of Purpose often creates Meaning – a feeling of contentment and significance spawned from doing what is important to us. *Purpose & Meaning* strongly influences mental health.

- For those exposed to *trauma*. A purpose is the key predictor of the victim's ability to maintain mental health or recover from a psychiatric illness.
- For *college students*. Their purpose in life is one of the best predictors of their mental health.
- For the *elderly.* Those with a strong sense of purpose are more than twice as likely to avoid Alzheimer's disease, are apt to live significantly longer than those with low purpose, and experience slower cognitive decline. Purpose also appears to protect the brain's memory centers from normal age-related shrinkage; in men, it helps to grow memory centers modestly. The elderly also show the ability to reverse this brain shrinkage and improve memory by engaging in meaningful activity.
- *More broadly*. People experiencing meaning show diminished stress, while those experiencing short-term self-gratification have increased pro-inflammatory gene expression, similar to people experiencing chronic stress and loneliness. In addition, seeking this personal gratification has little impact on meaningfulness and happiness.

(a) Cassels C, Sense of Purpose Predicts Mental Health Outcomes Following Severe Trauma, Medscape, 2008, http://goo.gl/4MuEiK.

(b) Bonab BG et al, Hope, Purpose in Life and Mental Health in College Students, International Journal of the Humanities, Vol 5 Issue 5.

(c) Boyle P, Effect of a Purpose in Life on Risk of Incident Alzheimer Disease and Mild Cognitive Impairment in Community-Dwelling Older Persons, JAMA Psychiatry, 2010, http://goo.gl/e7HJHM.

(d) Boyle P, Purpose in Life Is Associated With Mortality Among Community-Dwelling Older Persons, Psychosomatic Medicine, 2009, http://goo.gl/kn0DMJ.

(e) Boyle P, Effect of Purpose in Life on the Relation Between Alzheimer Disease Pathologic Changes on Cognitive Function in Advanced Age, JAMA Psychiatry, 2012, http://goo.gl/7tK3Zh.

(f) Carlson M et al, Impact of the Baltimore Experience Corps Trial on cortical and hippocampal volumes, Alzheimer's & Dementia, March 2015, http://goo.gl/vgZLCQ.

(g) Johns Hopkins Bloomberg School of Public Health, Civic engagement may stave off brain atrophy, improve memory, 2015, http://goo.gl/4qmfJ3.

(h) Fredrickson B et al, A functional genomic perspective on human well-being, PNAS, 2013, http://goo.gl/dObKMk.

(i) Smith EE, Meaning Is Healthier Than Happiness, The Atlantic, 2013, http://goo.gl/mxTj4O.

[19] **Transparent sharing of pros and cons of psychiatric treatment**. Transparent sharing of drug information is not occurring in many cases between prescribers and patients. Two surveys found the information flow inadequate. 64% of people received no information from their doctors on the risks or side effects of antidepressants, nor adequate guidance on their withdrawal difficulties. Over 60% of people with bipolar feel improperly informed about the drugs they take, especially regarding drug side effects and the impact they can have on their sex lives.

Importance of NNT and NNH.

(a) All-Party Parliamentary Group for Prescribed Drug Dependence, Antidepressant Withdrawal: a Survey of Patients' Experience by the All-Party Parliamentary Group for Prescribed Drug Dependence, 2018, https://goo.gl/aFXv3o.

(b) All-Party Parliamentary Group for Prescribed Drug Dependence, The Patient Voice: an analysis of the personal accounts of prescribed drug dependence and withdrawal submitted to petitions in Scotland and Wales, 2018, https://goo.gl/nYEhJd.

(c) Bowskill R et al,Patients' perceptions of information received about medication prescribed for bipolar disorder: implications for informed choice, J Affect Disord. 2007, PMID: 17174406, https://goo.gl/2gtRT4.

[20] **Self-determined choice**. **Practitioner as guide**. From the APA's ethics opinions: "the ethical issue is… HOW the prescribing of medication is decided upon by the psychiatrist and presented within the clinical encounter, and the self-determined willingness of a competent patient (or his/her proxy) to assume that risk… From an ethical perspective, the patient can terminate the relationship. It is ethically sound for the psychiatrist to want to do something to assist with ongoing care (beneficence) while also respecting the patient's self-determination (autonomy)."

This opinion underscores the right of the individual to self-determination and by implication, the role of the prescriber as guide, prescriber and recommender. That self-determination, however, may be over-ridden based on local law.

American Psychiatric Association, Recent APA Ethics Opinions, 2016-2018 Ethics Inquiries, https://goo.gl/3Vg3dL.

[21] **Drugs for crisis stabilization and symptom relief.** The target of short-term hospitalization in psychiatric emergency is typically stabilization – through drugs, attempting to significantly reducing symptoms and sedate as necessary. All drugs are FDA approved and prescribed because of their proven symptom relief characteristics.

[22] **Minimum effective dosages**. Minimum effective dosages (MED) are the lowest level of treatment (often lowest dose of drugs) where there is a reasonable balance between reduced symptoms, minimizing side effects, and avoiding relapse. MEDs are sometimes asserted at a broad population level to guide prescribing. However, given that the impact of drugs on individuals varies widely, minimum effective dosages must be determined for an individual through clinical experimentation. MEDs are routinely specified in prescribing guidelines but prescribing often goes beyond guidelines which can cause side effects to escalate (b-McMillan).

(a) Safer DJ, Raising the Minimum Effective Dose of Serotonin Reuptake Inhibitor Antidepressants: Adverse Drug Events, J Clin Psychopharmacol. 2016, PMID: 27518478. *"…Reports from the great majority of clinical trials have consistently found that the minimum SRI effective dose is usually optimal for efficacy in the treatment of depression disorders, even though most American medical practitioners raise the dose when early antidepressant treatment results are negative or partial…Strong evidence from fixed-dose trial data for the efficacy of nonascendant, minimum effective doses of SRIs was found for the treatment of both major depression and anxiety disorders. Particularly important was the finding that most SRI ADEs have an ascending dose-response curve. These ADEs include sexual dysfunction, hypertension, cardiac conduction risks, hyperglycemia, decreased bone density, sweating, withdrawal symptoms, and agitation. Thus, routinely raising the SRI dose above the minimum effective dose for efficacy can be counter-productive…"*

(b) McMillan S et al, Antipsychotic prescribing for vulnerable populations: a clinical audit at an acute Australian mental health unit at two-time points, BMC Psychiatry. 2017, PMCID: PMC5390470. *"… Guidelines [for antipscyhotics] globally endorse the routine practice of antipsychotic monotherapy, at the minimum effective dose... In a significant minority, antipsychotic prescribing did not align with clinical guidelines despite increased training, indicating that the education program alone was ineffective at positively influencing antipsychotic prescribing practices. Further consideration should be given when prescribing antipsychotics for involuntary patients, people with frequent hospitalisations, and those who have previously trialled clozapine."*

(c) NHS Tayside Medicines Advisory Group, Prescribing and monitoring antidepressants in Primary Care, 2017, https://goo.gl/JLko14. Note: contemporary prescribing guidelines already include the concept of minimum effective dosages.

[23] **Dosage reduction and deprescribing**. Deprescribing and dosage reduction in psychiatry is recognized as broadly important (a-Gupta), rarely considered (d-Gupta), and sorely needed in the case of children (c-Grudnikoff). It is also seen as important in targeted areas: the United States Department of Health and Human Services (f-Mientka) launched a national effort to prudently de-prescribe to "safeguard nursing home residents from unnecessary antipsychotic drug use" with support from James Scully, American Psychiatric Association Medical Director and CEO (g-Scully). Scully also launched a "Choosing Wisely" awareness campaign to curtail the broader inappropriate use antipsychotics (e-APA). Some more progressive providers create deprescribing guidelines (b-Ontario).

(a) Gupta S, A Prescription for "Deprescribing" in Psychiatry, Psychiatr Serv. 2016 PMID: 26975524. "… Burgeoning rates of polypharmacy, growing appreciation of long-term adverse effects, and a focus on patient-centered practice present specific indications for deprescribing in psychiatry."

(b) Ontario Pharmacy Evidence Network, Deprescribing Guidelines, https://goo.gl/8VpYFx.

(c) Grudnikoff E et al, Deprescribing in Child and Adolescent Psychiatry—A Sorely Needed Intervention, Am J Therapeutics, 2017, PMID: 28059976.

(d) Gupta, S et al, Deprescribing antipsychotic medications in psychotic disorders: How and why? Betham Science, 2018, https://goo.gl/TKz5qY. *"Prescribers have historically almost never considered the discontinuation of AP medications in persons with chronic psychotic disorders but a growing recognition of their side effects in addition to questionable long-term efficacy warrants an effort in this direction… In the absence of clear evidence-based guidelines, a patient's values and preferences for the treatment of a psychotic disorder assume a greater weight in the decision-making process than for the treatment of coronary heart disease or hypertension... Recently, results from several studies have suggested that these medications may be less effective for the outcomes that matter most to people with serious mental illness: a*

full return to well-being and a productive place in society… A prescriber may face both systemic and individual challenges while considering deprescribing antipsychotic medications. Some of the systemic challenges include the lack of guidelines and training for the process and often, the lack of peer support."

(e) The American Psychiatric Association (APA) supports prudent deprescribing. joined a broad campaign sponsored by the American Board of Internal Medicine (ABIM) Foundation to encourage practitioners and patients to consider the breadth of their treatment options and avoid unnecessary care. The APA focuses their effort on antipsychotics, commonly used as bipolar treatment. The importance of choosing wisely, however, goes beyond antipsychotics to all bipolar treatments, and indeed all medical disciplines, as evidenced by the fact that nine medical specialties joined the "Choosing Wisely" campaign. Leadership of the APA is clear (see below) that valid options should be considered, and the risks and side effects of drugs carefully weighed before choosing them. (i) **Sharfstein SS, Big Pharma and American Psychiatry: The Good, the Bad, and the Ugly, Psych News 2005, http://goo.gl/IzjQSW**. Dr. Steven Sharfstein, past president of the APA, emphasizes: *"…There is widespread concern about the over-medicalization of mental disorders and the overuse of medications. Financial incentives and managed care have contributed to the notion of a 'quick fix' by taking a pill and reducing psychotherapy and psychosocial treatments…. despite the strong evidence base that many psychotherapies are effective…."* **(ii) James Scully (MD, APA Medical Director and CEO), excerpt from a video of him speaking to the APA's participation in the Choosing Wisely® campaign, 2013, http://goo.gl/TrEZdx, copied 2015.** Scully indicates: *"…Physicians and patients together should be thinking carefully, 'Are the medications really needed and are there downsides and negative consequences for overuse?'... Patients really need to be a part of the decision… of their own treatments…".* **(iii) Watts V, APA Joins Campaign Urging Doctors, Patients to Choose 'Wisely', Psychiatric News, 2013, https://goo.gl/WQqbFF.** *"…'the Choosing Wisely campaign [is]an initiative that encourages physicians, patients, and other health care stakeholders to engage in a dialogue concerning potentially unnecessary medical procedures that, in some instances, could result in harm… [Antipsychotics] carry risks including potentially harmful side effects. Unnecessary use or overuse of antipsychotics can contribute to chronic health problems, such as metabolic, neuromuscular, or cardiovascular problems, in people with serious mental illness,' said Joel Yager, M.D., chair of the APA Council on Quality Care (COQC)… The APA has recommended that antipsychotics should not be used routinely and should never be used without considerable thought, good clinical reasoning, and discussion with patients as to why under particular circumstances such a course would be preferable to alternative options…".*

(f) Mientka M, Antipsychotic Medications Overprescribed For Everything, From Hyper Children To Nursing Home Residents, Med Daily, 2013, http://goo.gl/aCXHQn.

(g) James Scully (MD, APA Medical Director and CEO), excerpt from a video of him speaking to the APA's participation in the *Choosing Wisely*® campaign, 2013, http://goo.gl/TrEZdx, copied 2015. *"The [dosages of] antipsychotics in nursing homes… need to be really reduced".*

[24] **Importance of nondrug options**.

(a) Wagner C, Choices in Recover – 27 Non-drug Options for Adult Mental Health, Onward Mental Health Press, 2018 (latest publication), www.OnwardMentalHealth.com/book. *The book outlines 27 broad options for mental health recovery with many techniques within each option. These options are not a panacea, but their benefits are evidence-based – over 1400 supporting studies are referenced. Like drugs, the benefits of nondrug interventions vary by individual and prudent experimentation is required to find the options that work best. For biomedical options, lab testing can often help pinpoint suspected areas of causation that can be prioritized for treatment. The book summarizes the short list of options that have proven most beneficial for bipolar based on the degree of supporting scientific evidence available.*

(b) APA caucus on Complementary, Alternative, and Integrative, Medicine. (see www.IntPsychiatry.com)

(c) Mental Health Advocacy Groups supporting nondrug treatments. Mental Health American and NAMI. **Duckworth K, The Sensible Use of Psychiatric Medications, NAMI Advocate, Winter 2013, https://goo.gl/GMIuSU**. *"Psychiatric medications… are rarely enough to promote recovery alone…. Use of non-medication strategies is crucial for most clinical situations..."*

[25] **Nondrug solutions are available**. Nondrug options present economic challenges. Few are covered by insurance. Some are expensive, and access may be out of reach. However, many options can be acquired with little or no incremental cost. Sleuthing online and in your community is often needed but there is far more available than most people realize. To get started, check out Safe Harbor's Free Mental Health Strategies. For access to the breadth of biomedical options, work with a practitioner trained in the biomedical causes/ treatments for mental distress. Look here for a directory of practitioners and the biomedical tests they often use. For access to psychosocial options, connect with therapists in your community. For those with very limited financial means and in the U.S., Community Mental Health organizations can provide a variety of support. An internet search of "Community Mental Health" in your local area can help you understand available services and eligibility requirements.