Nutrition, Mental Health and Professional Wellness

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Objectives

- Discuss the mental health diagnoses we may see in practice, as well as their definitions
- Identify the different nutrition challenges for people with mental health diagnoses
- Describe options for nutrition interventions in this population

About Me

- Have been an RD since Oct 2010
- Have worked in inpatient, outpatient, and LTC psychiatric clinical situations
- Nearly 1 in 5 US adults has a mental illness [2]
  - I am one of them

Mental Health Stigma

- It is estimated that the majority of people (up to 80+%) will experience some form of mental disorder in their lives, with most people recovering from these disorders [43]
- In one study looking at mental illness in the news media, 55% of stories mentioned violence [37]
  - These depictions s mental illness

Mental Health Stigma

- People with severe mental illness are over 10x more likely to be the victim of a violent crime compared to the general population [9]
- Violence perpetrated by someone with mental illness is often related to another co-occurring factor, such as substance abuse [20]
  - In one study, crimes committed by people with a mental illness were only directly related or mostly related to their symptoms (hallucinations, delusions, impulsivity, etc.) 18% of the time [16]

Mental Health Diagnoses [2]

Diagnosis	Prevalence	Symptoms
Depression	Approximately 7.1% of all US adults had a major depressive episode in 2017. In 2020, past year depression common in "nearly 1 of 10 Americans overall" [77]	May include memory difficulties, personality changes, fatigue, loss of appetite, isolation, SI [6]
Anxiety	18.1% of the U.S. adult population has an anxiety disorder [4]	May include feeling nervous/restless/tense, panic attacks, difficulty concentrating/ sleeping, GI issues, having the urge to avoid things that trigger anxiety [7]
Posttraumatic Stress Disorder	Lifetime prevalence of 6.8%	Causes intense, disturbing thoughts and feelings related to a traumatic experience

Mental Health Diagnoses [2, 5]

Diagnosis	Prevalence	Symptoms
Borderline Personality Disorder	Prevalence of 1.4% in the US	Noted pattern of instability in moods, behavior, etc. that can result in impulsive actions and unstable relationships
Eating Disorders	Lifetime prevalence of 2.7% and twice as prevalent among women	Cause severe disturbances in eating behaviors and related thoughts and emotions
Obsessive Compulsive Disorder	Lifetime prevalence in U.S. of 2.3%	Causes recurring, unwanted thoughts, ideas, or sensations that make a person feel driven to do something repetitively
Schizophrenia	Affects <1% of the US population	Can cause delusions, hallucinations, trouble with thinking and concentration, and lack of motivation
Bipolar Disorder	Lifetime prevalence of 4.4% in the US	Cause changes to someone's mood, energy, and ability to function

COVID and Mental Health

- One cohort study showed that people who have a prior psychiatric diagnosis and were hospitalized for COVID had a higher mortality rate than those without psychiatric conditions [54]
- Having a recent dx of a mental disorder increases risk of COVID infection [55]
  - Even higher risk for African-Americans and women
  - Hospitalization and death rates higher for men
- A dx of Schizophrenia is one of the comorbidities that puts someone at higher risk for severe COVID outcomes [45]
  - 2.7x increased risk of mortality [72]
- A study of Italians showed that 17.8% of people had decreased appetite while 34.4% had increased appetite during COVID lockdown [40]
  - Almost 50% of respondents thought they had gained weight during COVID lockdown [40]

COVID and Mental Health (cont.)

- Depression and anxiety increasing d/t COVID [38, 39]
  - Inpatient stays for eating disorders increased during the latter half of 2020 [56]
- 18% of COVID survivors were dx with a mental illness within 3 months [41]
- A CDC survey found that 13.3% of respondents started or increased substance use to cope with pandemic-related stress/emotions [44]
  - It was also noted that younger respondents were more likely to report mental health issues and prevalence decreased with age.
- COVID and other societal issues have increased mental health challenges in children, adolescents and families [46]
- In one survey, "...respondents whose physical activity declined the most during the pandemic also experienced the worse (sic) mental health outcomes." [51]

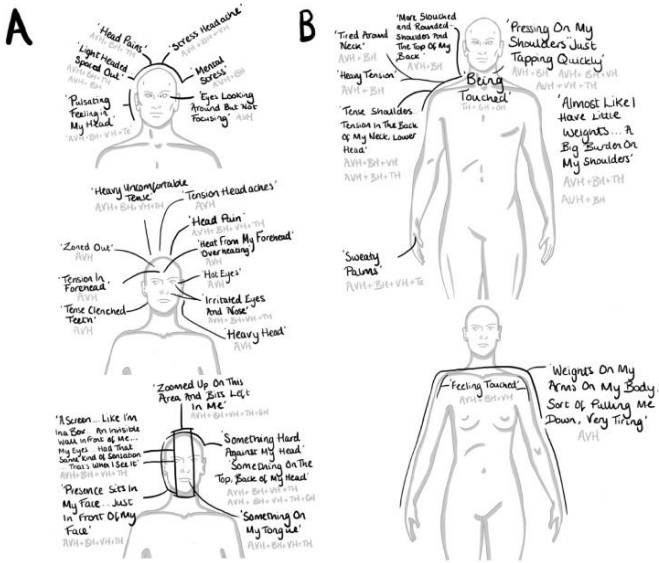
A few more facts

- Anxiety
  - Anxiety and depression often co-occur [3]
  - Most common mental illness [12]
  - Multiple types of anxiety disorders: Generalized Anxiety Disorder, Panic Disorder, Phobias, Agoraphobia, Social Anxiety Disorder, Separation Anxiety Disorder [5]
- Dysthymia is "a continuous long-term … form of depression" [60]

A few more facts

- Schizophrenia
  - Many misconceptions such as propensity for violence or homelessness, "split personality"
  - Half of people with schizophrenia have co-occurring mental and/or behavioral health disorder [2]
  - One of top 15 causes for disability worldwide and individuals have increased risk of suicide [2]
- Severe mental illness has been found to increase risk for death from coronary heart disease and stroke [69]
  - Related in part to antipsychotic use and elevated BMI [70]

Body Maps of Hallucinations [53]



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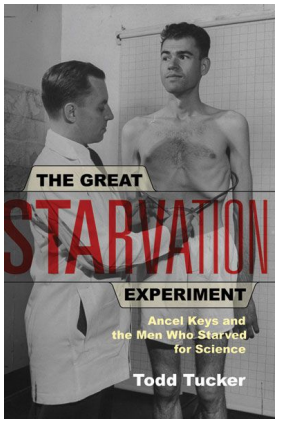
Symptom Effect on Nutrition

- Appetite changes
  - In one study, trait anxiety scores in women were positively associated with BMI, emotional eating scores, as well as kcal and kcal from fat consumed at a measured buffet [12]
    - Trait anxiety scores for men were also positively correlated with kcal of fat consumed
  - Approx ½ of people with MDD experience decreased appetite while ⅓ have increased appetite [13]
    - Decreased appetite associated with increased nighttime cortisol
    - Increased appetite associated with increased insulin resistance, higher leptin, lower ghrelin
      - If depression is the root cause of decreased appetite, it should be addressed first
- Weight changes
  - Medications and/or disease state may affect appetite and/or metabolism
  - Antidepressants increase serotonin in the brain and long-term use can cause carb cravings [74]
  - Antipsychotics affect "serotonin, dopamine, histamine, and muscarinic receptors" as well as "impair glucose metabolism, increase cholesterol and triglyceride levels, and cause hypertension" [74]

Nutrition's Effect on Mental Illness

- In a starvation state, such as a restricting-type eating disorder, we see many psychological effects caused by lack of adequate nutrition
  - Food obsessions/dreams [31]
  - Fatigue
  - Irritability
  - Depression
  - Apathy
  - Potential effects on ability to think
- One study found that obesity was associated with an ~25% increase in the odds of mood and anxiety disorders [8]



Some Nutrition-Related Side Effects of Meds [10, 42]

Weight Gain/Increased Appetite	Weight Loss/Decreased Appetite	Weight/appetite changes
Quetiapine (Seroquel)	Fluoxetine (Prozac)	Valproic Acid (Depakote)
Risperidone (Risperdal)	Clonazepam [11] (Klonopin)	Lorazepam (Ativan)
Gabapentin (Neurontin)	Topiramate (Topamax) - may also change ability to taste	Levothyroxine (Synthroid)
Olanzapine (Zyprexa)	Haloperidol (Haldol)	Ziprasidone (Geodon) - weight gain, loss of appetite
Mirtazapine (Remeron)	Duloxetine (Cymbalta)	
Aripiprazole (Abilify)	Lamotrigine (Lamictal)	
Paliperidone (Invega)	Citalopram (Celexa)	

Medication Notes

- Many psychiatric medications take weeks or months to have a full effect [14]
  - Look for med changes that occurred 1-2 months earlier
- Work with PharmD to see if there are alternative meds that may combat current side effects
  - May also help with insurance coverage

Nutrition Sidebar [30]

Nutrient	Function Examples	Source Examples
Vitamin C	Makes collagen, protein metabolism	Citrus fruits, tomatoes, potatoes
Vitamin B6	Involved in many enzyme reactions, biosynthesis of neurotransmitters	Fish, poultry, organ meats, starchy vegetables (including potatoes), non-citrus fruits
Folate (Vit B9)	Making DNA and RNA, amino acid metabolism	Plant foods such as dark green leafy vegetables, fruits, nuts, beans
Vitamin B12	Important for nerves, blood cells, and DNA. Note- Increased age, decreased stomach acidity, and pernicious anemia may make absorption difficult.	Primarily animal foods- fish, meat, poultry, eggs, dairy- but is fortified in other foods such as cereals or nutritional yeast
Vitamin D	Primarily affects bone health, however, many cells have Vitamin D receptors	Fatty fish, fortified milk, and other fortified products. Can obtain from sun exposure.

Nutrition Sidebar [30]

Nutrient	Function Examples	Source Examples
Iron	Helps transfer oxygen to tissues, supports muscle metabolism, necessary for neurological development	Lean meat, seafood, nuts, beans, vegetables, and fortified grain products
Zinc	Cell metabolism, sense of taste and smell	Red meat, poultry, beans, nuts
Magnesium	Involved in protein synthesis, muscle and nerve function, blood glucose control, blood pressure regulation	Green leafy vegetables, most foods that contain fiber, legumes, nuts, seeds
Omega-3 fatty acids	Help form the structure of cell membranes, perform other functions	Fish and certain oils such as fish, flaxseed, canola and soybean

Food Consumption and Mental Illness

- When depressed, people are more likely to skip meals, have poor appetite, and/or prefer sweet foods [17]
- Higher intakes of polyphenols (found in foods such as tea, cocoa, soy, coffee) were associated with decreased prevalence of depression [57]
- “Chicken and the egg”

Some of the Research

Diagnosis	Nutrient/Diet	Effect
Depression	Zinc	Levels often lower [17]; supplementation may enhance mood [62] Low intake of zinc and copper associated with 3x increased risk for depression and anxiety symptoms [61]
	Folate	Levels avg 25% lower [17] Increased dietary intake associated with 75% reduced risk in Hispanics [64]
	Low Carb Diet	May affect production of serotonin and tryptophan [17]
	Vitamin D	8.4% lower serum concentration [15]
	Omega 3 fatty acids	May play a role [24]
	Vit B6	Appears to be an inverse relationship between depressive symptoms and consumption of Vit B6 from food for women [32, 56]
	Magnesium	Low levels may be associated with symptoms [63]
	Fruit	Frequency of fruit consumption negatively predicted depression scores [73]

Some of the Research

Diagnosis	Nutrient	Effect
Schizophrenia	Vit D	Deficiency r/t psychosis, supplementation may help [21] Neonatal def in ethnic Danes was associated with a 44% increased risk of dx [66] A UK study showed that only 8.7% of adult psychiatric inpatients were Vit D sufficient and people with schizophrenia had the lowest mean serum Vit D out of the "most common diagnostic groups" [67]
	Folic acid	An Egyptian study showed 41.5% of patients had low folate levels [68] Supplementation may help [21]
	Vit B12	Same Egyptian study showed 39% of patients with low B12 levels [68] Supplementation may help [21]
	Iron	Low serum ferritin levels associated with more negative symptoms in first episode psychosis [65]

Some of the Research

Diagnosis	Food/Herb/Vitamin	Effect
Anxiety	Fruits and Vegetables	At least 5 servings/day may decrease risk [36]
	Savory snacking	Positively predicted anxiety scores [73]
	Ashwagandha	May provide reduction of symptoms [54]
OCD	Caffeine	One study found "an inverse association between OCD severity and caffeine consumption" [78] although it appears that, in general, more research on OCD and nutrition is needed [78, 79]
Bipolar Disorder	Folate	There may be an "association between lower serum folate levels" and BD, but more research is needed [80]

Vitamin Supplementation

- Average cost of vit D test is $50 [25]
  - Insurance only covers certain diagnoses such as osteoporosis, CKD stages 3 and 4, hyperparathyroidism, and Vit D def [26]
  - The Institute of Medicine found that, on average, most people have adequate Vit D levels [27]
    - Might vary depending on what area you work in
- Vitamin B12 and folate levels can be checked together and also cost ~$50 [28]
  - American Society for Clinical Pathology doesn't rec to check folate levels, but to instead just supplement with folic acid [29]
  - A B complex supplement can cost $0.068/day ($24.82/year) [33]
- Request for lab draws and recommendation for vitamin supplementation are forms of nutrition intervention that may be beneficial to patients/clients
- MVI or prenatal may be best option for some
  - The 25% of adults with mental illness or substance use disorder are responsible for 40% of cigarettes smoked in US [22] increasing need for Vit C by 35 mg/day [23]

Nutrition Interventions

- To slow weight gain
  - 1 portion at a time
  - Smaller portions to start
  - Encourage less Calorie-dense foods
  - Watch the drinks
  - Reconsider snacks
  - Have activities focus less on food-related activities if possible
    - Going bowling vs going out to dinner
  - Consider recommending an appetite suppressant
    - One meta-analysis showed mean weight loss of 3.17 kg (~6.97#) for metformin vs placebo for people with schizophrenia [75]

Nutrition Interventions

- To slow weight loss
  - Supplements- between or at meals, with med pass
  - Snacks
  - Food interventions
  - Med changes
  - Encouraging them to eat with others [52]

Nutrition Interventions

- To potentially help with paranoia regarding food
  - Utilize a less varied diet and consider an MVI
  - Determine where the paranoia is - ok to eat prepackaged foods?
- Most patients could benefit from having more diet variety
  - Depending on dx, this may or may not be doable
  - Consider how food is being prepared
    - Steamed vs sauteed vs boiled vegetables

Mindfulness

- “Mindfulness is a type of meditation in which you focus on being intensely aware of what you're sensing and feeling in the moment, without interpretation or judgment.” [35]
- Increased mindfulness may reduce emotional eating [1]
- Try mindfulness exercises
  - Doing the dishes
  - Eating an item with all your senses

Additional Intervention Recommendations

- Diet education is an option but patient must be agreeable
- Encourage diet balance as able
- Consider encouraging “more”
  - Fruits
  - Vegetables
  - Whole grains
- Meet them where they are

Nutrition Intervention Considerations

- Do you have patients who need additional protein for wound healing or fluid balance management but who are obese?
  - Consider protein powders or liquid supplements
- You have the right to make choices, even if they are bad ones
  - My responsibility is to educate and the patient may comply if they so choose

Some Physical Activity Research

Diagnosis	Activity Type	Result
Severe mental illness	↑ Sedentary Time ↓ Moderate or vigorous activity time	Increase in CV risk [50]
Depression	Resistance Exercise Moderate-intensity Exercise	May reduce symptoms [47, 76] Improvements in mood with MDD may be r/t increases in serum endocannabinoid content [71]
Anxiety	Physical Activity	"...may protect against anxiety symptoms and disorders" [48]

Notification

- It's important to be in touch with other providers to coordinate care
  - Especially important if you discover something not already in the medical record
- Eating disorder RDs need to be in touch with the therapist/psychiatrist

Individualized Care

- It is important to get the patient's opinion on what they want to do
  - If patients are confused or unavailable to talk to, I sometimes will try an intervention for a week or two to see how they like it and then try to talk to them about it, if able
- It is also important to check back to see what's working and what isn't
- Meal intakes may not show the whole picture
  - Patient may prefer to snack versus eating full meals
  - Patient may choose to consume liquid supplements instead of eating

Additional Thoughts

- Put yourself in their shoes
- Be aware of potentially triggering language
  - Weight discussions for people with eating disorders
  - “I’m keeping an eye on you”
- It is generally up to the therapist or psychiatrist to determine which behaviors should be challenged and which should be worked around
- One survey showed that Gen Z members are more likely to report their mental health as fair or poor and more likely to have received treatment from a mental health professional [18]

Resources

- Stigmatizing language
  - https://www.psychologytoday.com/us/blog/happiness-is-state-mind/202201/stigmatizing-language-in-mental-health-and-addiction
- What schizophrenia feels like for someone
  - https://www.tiktok.com/@xoradmagical/video/7057277960176422150?is_from_webapp=1&sender_device=pc&web_id7057538059215455749
- Phrases to avoid
  - https://www.psychologytoday.com/us/blog/and-running/202112/3-phrases-helping-professionals-should-avoid

Self-Care is Important for Providers, Too

- 67% of healthcare workers screened positive for burnout in a pandemic study [19]
- You can’t take care of your patients if you aren’t taking care of yourself
  - Avoid activities which may increase stress
    - Doomscrolling
    - Drug/alcohol abuse
  - Set aside time for yourself daily or weekly and put it on your calendar
    - Can be as simple as a self-imposed “time out”
    - Schedule a massage or lunch with a friend
  - Learn your personal “benchmarks” to help determine when you are too stressed vs doing well
  - Don't be afraid to get therapy for yourself if you need it

From a Nutrition Standpoint

- When depressed, people are more likely to skip meals, have poor appetite, and/or prefer sweet foods [81]
- Consuming at least 5 servings of fruits and vegetables/day may decrease risk of anxiety [82]
  - However, we know that fresh produce takes more time to prepare and has a shorter shelf life, which can be problematic for staff working longer hours or when making fewer trips to the store
- Anecdotally, we know that many healthcare workers will resort to “junk food”, “fast food”, and other “comfort foods” during times of stress
- Increased stress can lead to increased abdominal adiposity and adverse health effects [83]

Eating and Mood

- Food has many connotations in our lives - ignoring this doesn't benefit us
  - A traditional holiday dish
  - Popcorn at a family movie night
  - Bringing food to someone who has had a new baby or lost a family member
- Consumption of dark or milk chocolate may help reduce perceived stress, esp for women [84]

Start With More

- Eat more fruits, veggies, whole grains
  - Adding vegetables to a frozen dinner does count as making dinner
  - Try different produce preparation methods
    - Steamed
    - Roasted
    - Grilled
  - Put produce at eye level on your counter or in your fridge to make sure you utilize it and take it out of produce bags if feasible
- Make sure you include protein with each meal
  - Men under age 65 need 55-57 g protein/day while non-pregnant or lactating women under age 65 need 47-48 g protein/day [85]
- Drink water more than other beverages
- Move more
- Get more sleep if needed
- Make sure you eat satisfying foods

Healthier Eating

- Add fiber to your diet
  - Fruit for dessert and/or breakfast
  - An extra, non-starchy vegetable with dinner
  - Add some plant based proteins
    - Sub some quinoa or lentils for some ground beef
    - Meatless Mondays
    - Cheaper and more shelf-stable protein
    - Doesn't mean you have to give up meat, but can be a way to add more fiber and other vitamins and minerals while saving some money
  - Men are rec to eat 38 grams of fiber/day and women are rec to eat 25 grams of fiber/day [86]
- Diets high in fruits, vegetables, whole grains, fish, and healthy fats have been shown to reduce risk of death from chronic disease [87, 88]
- Higher intake of whole fruit may reduce risk for developing type 2 DM [89]

Go Slow

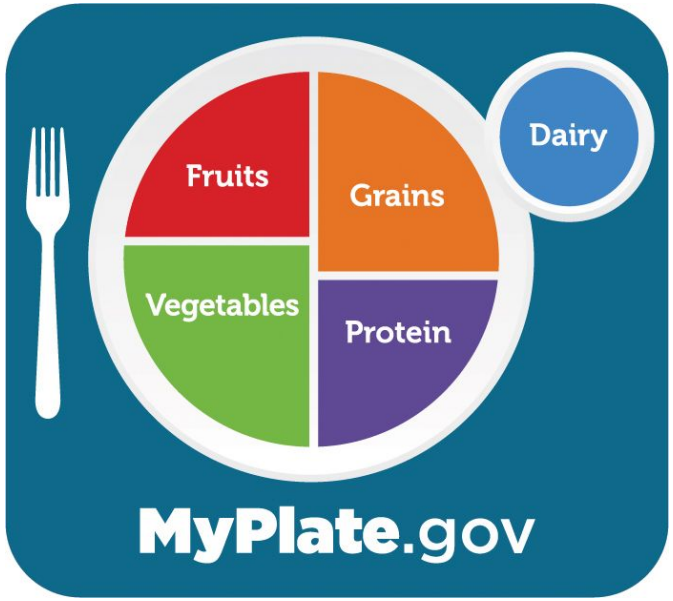
- Make 1-2 small changes at a time
  - Park farther away in the parking lot
  - Take the stairs
  - Reduce the number of sugar packets in your coffee
  - Switch to 1% milk from whole or 2%
    - Go from 25/75 to 50/50 to 75/25
  - Reducing sodium in your diet
  - Make a small change in your portion sizes
  - Consider your beverages
  - Consider condiments
- As those small changes become habits, add in more changes
- Habit-based weight loss interventions tend to be more successful over the long term [90]

Diets to Consider

- While ideally, we would all just make healthy eating choices without feeling the need to follow a “diet”, there are some options to provide guidance to those who need/want it
  - Nordic [91]
    - More fruits, vegetables, legumes, fish, eggs, fat/oil
    - Less meat, poultry, dairy, sweets/desserts, alcohol
  - Mediterranean [92]
    - More olive oil, vegetables, legumes, whole grains, nuts, fruits, moderate fish intake
    - Less cheese, meat, milk, eggs, sweets, liquor/beer
  - DASH [93]
    - More fruits, vegetables, lean meats, low-fat dairy, nuts/seeds, whole grains, legumes/beans, fish
    - Less sodium, processed/cured meat
    - Found to be the best non-pharmacologic option to lower blood pressure [94]
- Ultimately, the best diet is the one that you will continue to follow long-term

Intuitive Eating [95]

- A “self-care eating framework” developed by two RDs
  - Elyse Resch, MS, RDN, CEDRD-S, Fiaedp, FADA, FAND & Evelyn Tribole, MS, RDN, CEDRD-S
- Weight-inclusive
- Includes 10 principles:
  - Reject the Diet Mentality
  - Honor Your Hunger
  - Make Peace with Food
  - Challenge the Food Police
  - Respect Your Fullness
  - Discover the Satisfaction Factor
  - Honor Your Feelings without Using Food
  - Respect Your Body
  - Exercise—Feel the Difference
  - Honor Your Health with Gentle Nutrition



Easier Menu Planning

- Create a cycle menu
  - Pick out recipes that you and your family love, that are easy or fun to make, make enjoyable leftovers, or even that can be made ahead
  - Set these up on a rotation instead of trying to pick out new recipes every week
  - Write up a grocery list that can be re-used for those recipes
  - Include thawing timelines
  - Have your teams share their plans/ideas

Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Crock Pot Roast	Meatloaf	Tacos	Chicken Salad Sandwiches	Fried Rice	Burgers	Leftover veggies salad
2	Chili	BBQ pork sandwiches	Tuna Casserole	Breakfast for Dinner	Lentil Soup	Fish Sticks	Spaghetti and Meatballs

Healthy Eating Made Easier

- Keep fast meal staples on hand like frozen veggies, pasta and jarred sauce with frozen meatballs, healthy frozen meals, canned beans, broth/bouillon
  - Breakfast for Dinner
- Do veg prep once a week- if feasible
- Use leftovers to make healthy and quick lunches and to avoid food waste
  - Can also utilize some leftovers to make a soup
- Remember to utilize your “friends”
  - Freezer
  - Food Processor
  - Slow cooker/multi-cooker
  - Microwave
  - The Internet
- Be creative!

Other Wellness Realms

- Exercise/physical activity
- Breastfeeding Support
- Sleep
- Fluids
- Social relationships
- Organization
- Mindfulness
- Stress management
- Financial

Find Healthy Coping Mechanisms

- Write up a list of all your best coping mechanisms
  - Journaling
  - Exercise
  - Healthy eating
  - Talking to a friend
  - Grounding
  - Deep breathing
  - When we are stressed, we sometimes forget
    - i.e. painting my nails when I need to sit still
  - We have to have multiple tools in the toolbox
    - Not every tool works for every situation
    - Sometimes something isn’t available to us at the present time
- Write down all of your personal signs of stress to remind you to check in with yourself
  - Can even prioritize them by stress level
- Take a Mental Health Day
- Be forgiving of yourself

Questions?

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