Borderline Personality Disorder: Part II

Project ECHO

August 2, 2022

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Main Points

- Both the DSM 5 and ICD 11 Borderline Personality Disorder (BPD) diagnosis are characterized by intense emotional experiences and instability in relationships and behavior that begins in early adulthood.
- BPD screening is simple and time efficient.
- Clinical management: team up with significant others and other staff, emphasize safety in all interactions, remember that most people with BPD will eventually get better and treat co-occurring disorders.
- There is one evidence based therapy relatively available in US, but other psychotherapies and mindfulness can also be useful.
- Referral to mental health treatment for patients with trauma histories needs care, understanding, time and planning.

Borderline Personality Disorder Defined by DSM 5 and ICD 11

- The DSM 5 recognizes Borderline Personality Disorder (BPD) as a disorder characterized by **intense emotional experiences** and **instability in relationships** with behavior that begins **in early adulthood** and manifests itself in **multiple contexts (home and work).**
- DSM-5 diagnostic criteria include: **A pervasive pattern of instability in interpersonal relationships, self image, and emotions, frantic efforts to avoid real or imaged abandonment, impulsivity that is self-damaging, recurrent suicidal behavior, chronic feelings of emptiness, inappropriate, intense anger, and transient stress related to alternations in reality**.
- The ICD-11 classification allows clinicians to specify a borderline pattern qualifier, which essentially consists of the nine DSM 5 diagnostic features (Mulder, 2021).

BPD: Trauma Neurobiology Summary

- **BPD is associated with multiple types of trauma throughout development** from early childhood through late adolescence, such as, Adverse Childhood Experience complex trauma events and other complex traumas, such as, bullying.
- In addition, **DSM 5 type single event traumas during late adolescence are also associated with BPD**.
- **Adverse childhood experiences affect different biological systems (HPA axis, neurotransmission mechanisms, endogenous opioid systems, gray matter volume, white matter connectivity), with changes persisting into adulthood.**
- Specific gene variations, especially in stress response systems and epigenetic effects in stress response systems and estrogen response systems augment or diminish the biological responses to trauma resulting in BPD versus PTSD or Major Depression.

BPD Often Improves Over the Long Run

- Multiple prospective, long-term follow-up studies found that most patients with BPD experience a remission**, and many experience a full recovery over the course of their lives** (Soloff & Chiappetta, 2020; Ng, Bourke, Grenyer, 2016; Temes & Zanarini, 2018).
- The study with the best control groups of patients with cluster C personality disorders, and with MDD but no personality disorder had **more females than males in each group because females are more likely to engage in psychotherapy**.
- This study again found 'The 10-year course of BPD is characterized by high rates of remission and low rates of relapse" with **no gender differences in course** (Gunderson, Stout, McGlashan et al., 2011).

Clinical Management

- **Language is important!** A review of person centered language is in the Appendix.
- **Team Up!** Medicaid patients with BPD are now eligible for Community Care Services (CCS).
- **Trauma Informed Care model** can be helpful for any patient with a trauma history but can be especially useful for BPD patients and staff interacting with BPD patients.
- Develop empathy, focus on **what happened to you**?
- **Therapy works**, but it may be difficult to make and complete a referral.
- If BPD specific treatment is unavailable, make a referral to a general therapist or a referral to treat the co-occurring disorders.

Trauma Informed Care (TIC)

- Definition: **TIC is a strengths-based service delivery approach that is rooted in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and clients** (Hopper, Bassuk, & Olivet, 2010).
- TIC has become a widely recognized way for **creating safe spaces for individuals who have experienced trauma** and reduces the chance that the environment causes more trauma for the person. The impact of TIC on patients and organizations is powerful.
- **TIC has shown to be effective in reducing trauma-related symptoms** (Substance Abuse and Mental Health Services Administration, 2014).
- TIC involves **recognizing, understanding, and responding to the effects of all types of trauma.**

TIC (2)

- Rather than seeing trauma reactions as pathological, it **understands these reactions as adaptive.**
- They are the individual's best attempt to cope with the experience of trauma.
- TIC can be used in any type of service setting or organization.
- By using this approach, you can gain awareness of ways to anticipate and avoid situations that are likely to re-traumatize your patients.
- **TIC focuses on the individual's strengths and encourages the individual's participation in their treatment** (Substance Abuse and Mental Health Services Administration, 2014).
- A pdf of presentation on Trauma Informed Care is included with this presentation.

BPD Considered Stigmatizing By Some Patients

- The name BPD is confusing, imparts no relevant or descriptive information, and **reinforces existing stigma**. We believe that BPD should be reframed onto a spectrum of its core components-impulsivity and emotional dysregulation. **Callers to our helpline consistently express their frustration with the name BPD.**

  https://web.archive.org/web/20141020191907/http://www.tara4bpd.org/dyn/index.php?option=content&task=view&id=32&Itemid=35
- According to the latest recommendations on proper language use in referring to persons with disabilities, the term BPD does not meet current standards (Bogod, 2015).

  https://web.archive.org/web/20150502181810/http://www.borderlinepersonalitytoday.com/main/label.htm
- Alternative suggestions for names include **emotional regulation disorder** or **emotional dysregulation disorder**.
- **Impulse disorder** and **interpersonal regulatory disorder** are other valid alternatives (Gunderson & Hoffman, 2005).
- Another alternative is is **post traumatic personality disorganization** (Quadrio, 2005).

TIC: Focus on Building Relationships

- **All work within health and human services is built on a foundation of trusting and therapeutic relationships.**
- Consider what helps versus what hurts a trusting relationship—being dismissive, impersonal, or critical toward the persons served will break down trust.
- Active listening, respect, and patience will help a relationship thrive and make interactions with clients more successful.

Galindo & Lewis-Stoner, 2020

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TIC: Person Centered Treatment Planning

- Ultimately, the **person served is the expert of own their life.**
- Person-centered practices keep the individual's goals, choices, and self-determination at the core of their treatment,
- Person centered plans are often carried out by nonclinical or paraprofessional staff.
- **Being person-centered will contribute to a client's ability to use voice and choice, a critical element of a trauma-informed approach**.

Galindo & Lewis-Stoner, 2020

Emphasis on Emotional Safety and Avoiding Triggers

- People who have experienced significant trauma become very **concerned with safety.**
- Establishing that they feel safe and periodically checking on their sense of safety is the first priority in communicating effectively with patients who have experienced trauma.
- Communicating effectively in general about mental illness and substance use is a specific skill set that can be learned.
- There are multiple types of trainings on communicating about mental health issues. Mental Health First Aid (MHFA) is one of those trainings, that is relatively brief and evidence based.

Emphasis on Emotional Safety and Avoiding Triggers (2)

Practice Crisis De-escalation and Prevention

- While many organizations will focus on training related to crisis response, they may gloss over or exclude training focused on preventing a crisis from occurring in the first place.
- Understanding precursors to behaviors that can be destructive or maladaptive, and preventing these precursors from happening or from getting worse, is a trauma-informed approach to care.
- The use of grounding techniques can promote emotional safety and prevent crises.

Galindo & Lewis-Stoner, 2020

Grounding Techniques

- **Grounding techniques are important skills** for assessors and all other behavioral health service providers who interact with traumatized clients (e.g., nurses, security, administrators, clinicians). Even if you do not directly conduct therapy, knowledge of grounding can help you defuse an escalating situation or calm a client who is triggered by the assessment process.
- **Grounding strategies help a person who is overwhelmed by memories or strong emotions or is dissociating; they help the person become aware of the here and now.**
- A useful metaphor is the experience of walking out of a movie theater. When the person dissociates or has a flashback, it's like watching a mental movie; grounding techniques help him or her step out of the movie theater into the daylight and the present environment. The client's task is not only to hold on to moments from the past, but also to acknowledge that what he or she was experiencing is from the past.

Melnick & Bassuk, 2000

Grounding Techniques (2)

- **Ask the client to state what he or she observes.**
- Guide the client through this exercise by using statements like, “You seem to feel very scared/angry right now. You’re probably feeling things related to what happened in the past. Now, you’re in a safe situation. Let’s try to stay in the present. Take a slow deep breath, relax your shoulders, put your feet on the floor; let’s talk about what day and time it is, notice what’s on the wall, etc. What else can you do to feel okay in your body right now?”
- **Help the client decrease the intensity of affect.**
  - “Emotion dial”: A client imagines turning down the volume on his or her emotions.
  - Clenching fists can move the energy of an emotion into fists, which the client can then release.
  - Guided imagery can be used to visualize a safe place.
  - Distraction (see #3 below).
  - Use strengths-based questions (e.g., “How did you survive?” or “What strengths did you possess to survive the trauma?”).

Melnick & Bassuk, 2000.

Grounding Techniques (3)

- **Distract the client from unbearable emotional states.**
  - Have the client focus on the external environment (e.g., name red objects in the room).
  - Ask the client to focus on recent and future events (e.g., "to do" list for the day).
  - Help the client use self-talk to remind himself or herself of current safety.
  - Use distractions, such as counting, to return the focus to current reality.
  - Somatosensory techniques (toe-wiggling, touching a chair) can remind clients of current reality.
- **Ask the client to use breathing techniques.**
  - Ask the client to inhale through the nose and exhale through the mouth.
  - Have the client place his or her hands on his or her abdomen and then watch the hands go up and down while the belly expands and contracts.

Melnick & Bassuk, 2000.

https://www.medicalnewstoday.com/articles/grounding-techniques#when-to-use

BPD Responds to Treatment

- To assess the beneficial and harmful effects of psychological therapies for BPD.
- Conclusions: **Our assessments showed beneficial effects on all primary outcomes in favor of BPD-tailored psychotherapy compared with Treatment As Usual (TAU)**.
- **Compared to TAU, we observed effects in favor of Dialectical Behavior Therapy (DBT) for BPD severity, self-harm and psychosocial functioning.**

Storebø, Stoffers-Winterling, Völlm, 2020;

Oud, Arntz, Hermens, Verhoef and Kendall, 2018

BPD Also Responds to Non Specific Psychological Treatments

- Purpose: to critically evaluate the literature on psychotherapies for BPD published over the past 5 years.
- Conclusion: **Our review indicated that patients with various severities benefited from psychotherapy**;
- **More intensive therapies were not significantly superior to less intensive therapies** (Links, Shah, Eynan, 2017).
- The good news is that **psychotherapy over time will help, it doesn't have to be DBT.**
- Consider residential substance use disorder treatment or eating disorder treatment if BPD is comorbid with those disorders.

Brief Primer For Omega-3 Fatty Acids: Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)

- EPA and DHA are "essential fatty acids"; **human bodies do not synthesize them in adequate amounts, so humans must consume them in their diet.**
- EPA and DHA come mainly from fish, so they are sometimes called marine omega-3s, they provide structure as an integral part of cell membranes throughout the body and affect the function of the cell receptors in these membranes.
- A recently published US population based study using blood levels found "**Over 95% of children and 68% of adults had omega-3 concentrations below** those associated with the US dietary guidelines" (Murphy, Devarshi, Ekimura et al., 2021).
- EPA and DHA may have differential effects on bodily functions such as, inflammation (Lamon-Fava, So, Mischoulon et al., 2021; Chang, So and Lamon-Fava, 2021).
- A more detailed review of omega 3 fatty acids is included in the Appendix.

Omega-3 Fatty Acids And Mental Health

- The usefulness of polyunsaturated fatty acids on inflammatory, cardiovascular, and the nervous system was studied in the last decades, but the **mechanisms underlying their beneficial properties are still partially unknown.**
- These agents seem to express their action on the **membrane phospholipid composition and permeability and modulation of second messenger cascades**.
- In psychiatry, the efficacy and tolerability of omega-3 fatty acids were investigated in several psychiatric disorders, including **major depression, bipolar disorder, personality disorders, high-risk conditions to develop psychosis, attention-deficit hyperactivity disorder, and autism spectrum disorders.**
- **The effects of these agents on the main symptom dimensions have to be investigated in a trans-diagnostic perspective**.

Bozzatello, De Rosa, Rocca et al., 2020

Omega-3 Fatty Acids And Mental Health (2)

- The present systematic review aims to examine the efficacy of omega-3 fatty acids on domains of **psychotic symptoms, affective symptoms, impulsivity, and aggressiveness, and harmful behaviors, and suicide risk.**
- **There is lack of evidence for the efficacy of Omega-3 Fatty Acids on the psychotic cluster of symptoms in bipolar disorder, schizoaffective disorder, and schizotypal personality disorder**.
- The combination of higher dose of EPA with lower dose of DHA (EPA 1.67 g/day + DHA 0.83 g/day), added to existing antidepressant treatment, revealed beneficial effects on mood.
- On the contrary, lower doses of EPA with higher doses of DHA (EPA 0.6 g/day + DHA 2.2 g/day added to standard therapy) evidenced no benefits on depressive symptoms (Bozzatello, De Rosa, Rocca et al., 2020).

Omega-3 Fatty Acids And Mental Health (3)

- **Single therapy with omega -3 fatty acids (EPA0.93 g/day +DHA 0.29 g/day) showed an improvement of impulsive dyscontrol and aggressiveness in patients with ADHD and in patients with BPD.**
- Moreover, combined therapy with EPA (1–1.2 g/day) plus DHA (0.6–0.9 g/day) and valproic acid (800–1300 mg/day—plasma range: 50–100 g/mL) was superior to single therapy with valproic acid on impulsive–behavioral dyscontrol and outbursts of anger in BPD patients.
- In BPD patients, n-3 PUFAs supplementation (EPA 1–1.2 g/day + DHA 0.6–0.9 g/day), added to standard psychiatric therapies, showed a significant reduction of self-harming and parasuicidal attitudes. In particular, the reduction of suicidal behaviors seems to be independent of change in the depression score (Bozzatello, De Rosa, Rocca et al., 2020).

McLean Screening Instrument for BPD

1. Have any of your closest relationships been troubled by a lot of arguments or repeated breakups?	Impulsivity
2. Have you deliberately hurt yourself physically (e.g., punched yourself, cut yourself, burned yourself)? How about a suicide attempt?	Impulsivity
3. Have you had at least two other problems with impulsivity (e.g., eating binges and spending sprees, drinking too much and verbal outbursts)?	Impulsivity
4. Have you been extremely moody?	Affective dysregulation
5. Have you felt very angry a lot of the time? How about often acted in an angry or sarcastic manner?	Affective dysregulation

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McLean Screening Instrument for BPD (2)

6. Have you often been distrustful of other people? Yes_____No_____

7. Have you frequently felt unreal or as if things around you were unreal? Yes_____No_____

8. Have you chronically felt empty? Yes_____No_____

9. Have you often felt that you had no idea of who you are or that you have no identity? Yes_____No_____

10. Have you made desperate efforts to avoid feeling abandoned or being abandoned (e.g., repeatedly called someone to reassure yourself that he or she still cared, begged them not to leave you, clung to them physically)? Yes_____No_____

Screen positive = 7 or higher

ACE Effect On Adult Antidepressant Response

- **Few reliable predictors indicate which depressed individuals respond to antidepressants**. Several studies suggest that a history of early-life trauma predicts poorer response to antidepressant therapy but results are variable and limited in adults.
- The major goal of the present study was to evaluate the role of early-life trauma in predicting acute response outcomes to antidepressants in a large sample of well-characterized patients with major depressive disorder (MDD).
- The international Study to Predict Optimized Treatment for Depression is a randomized clinical trial with enrollment from December 2008 to January 2012 at eight academic and nine private clinical settings in five countries.
- Patients (n = 1008) meeting DSM-IV criteria for MDD and 336 matched healthy controls comprised the study sample.
- Randomization was to 8 weeks of treatment with escitalopram, sertraline or venlafaxine with dosage adjusted by the participant's treating clinician per routine clinical practice.

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ACE Effect On Adult Antidepressant Response (2)

- Exposure to 18 types of traumatic events before the age of 18 was assessed.
- Trauma prevalence in MDD was compared with controls. **Depressed participants were significantly more likely to report early-life stress than controls; 62.5% of MDD participants reported more than two traumatic events compared with 28.4% of controls.**
- The higher rate of early-life trauma was most apparent for experiences of interpersonal violation (emotional, sexual and physical abuses).
- **Abuse and notably abuse occurring before 7 years of age predicted poorer outcomes after 8 weeks of antidepressants, across the three treatment arms**.
- Specific types of early-life trauma, particularly physical, emotional and sexual abuse, especially when occurring before 7 years of age are important moderators of subsequent response to antidepressant therapy for MDD (Williams, Debattista, Duchemin et al., 2016)

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ACE Effect On Adult Antidepressant Response (3)

- Overall presence of at least one early-life traumatic event was not a significant predictor of the percentage change in symptom severity from pre- to post treatment.
- **Overall trauma was also not a significant predictor of response or remission**.
- The experience of abuse was a significant predictor of both remission (chi-square = 49.782, df = 12, P00.0001) and response (chi-square = 72.769, df = 12, P00.0001).
- The experience of abuse at the age of 4 to 7 years contributed specifically and significantly to prediction for both response (P = 0.034; OR = 1.574) and remission (P = 0.032; OR = 1.606),
- **Indicating that participants were about 1.6 times less likely to achieve response or remission if exposed to abuse at this age.**

Williams, Debattista, Duchemin et al., 2016

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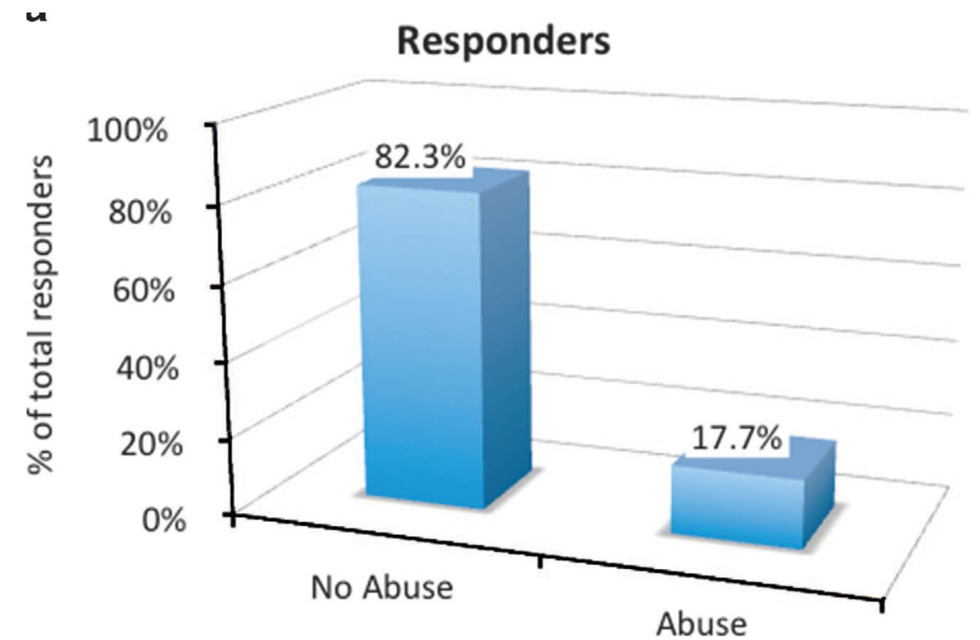
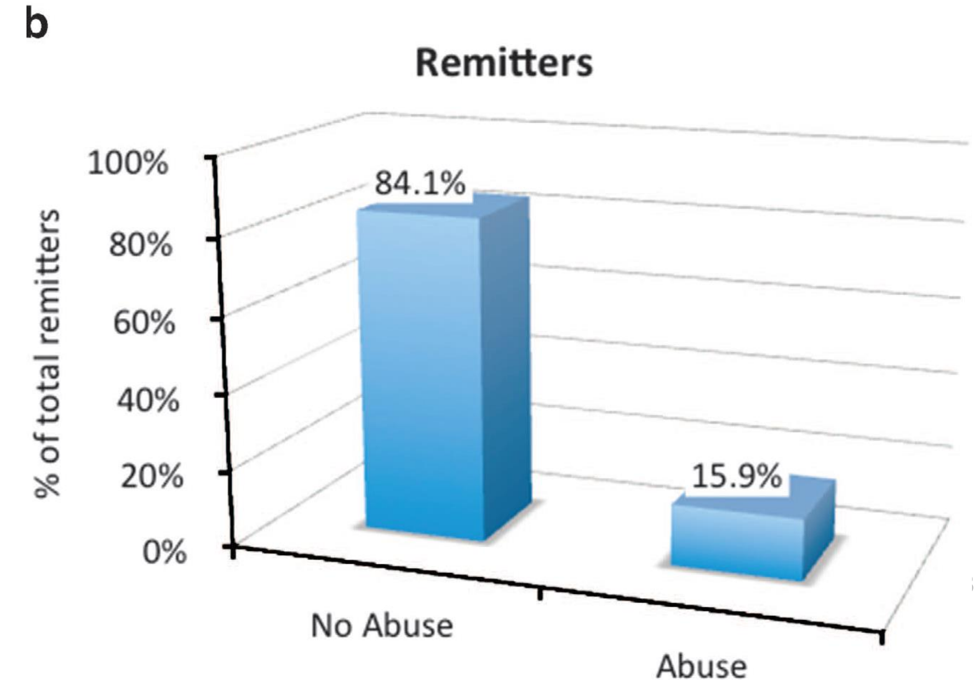
ACE Effect On Adult Antidepressant Response (4)

Williams, Debattista, Duchemin et al., 2016





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ACE Effect On Adult Antidepressant Response Review

- **ACE is a predictor of poor outcome across treatments for MDD.**
- 3 studies that included head-to-head comparisons of antidepressant treatments among adult MDD patients with a reported history of ACE or no history.
- Preliminary findings suggest that **sustained-release bupropion (alone or in combination) or aripiprazole-augmentation as next-step intervention** did not demonstrate differential outcome among MDD patients with or without a history of ACE.
- Further, sertraline and the group of antidepressants with low affinity for the serotonin transporter may be less suitable for MDD patients with childhood abuse history than **escitalopram, venlafaxine-XR, or antidepressants with high affinity for the serotonin transporter.**
- The critical question of the most potentially efficacious treatment regimens for adult MDD with ACE history requires further large-sample studies.

Perna, Daccò, Alciati et al., 2020

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Main Points

- Both the DSM 5 and ICD 11 Borderline Personality Disorder (BPD) diagnosis are characterized by intense emotional experiences and instability in relationships and behavior that begins in early adulthood.
- BPD screening is simple and time efficient.
- Clinical management: team up with significant others and other staff, emphasize safety in all interactions, remember that most people with BPD will eventually get better and treat co-occurring disorders.
- There is one evidence based therapy relatively available in US, but other psychotherapies and mindfulness can also be useful.
- Referral to mental health treatment for patients with trauma histories needs care, understanding, time and planning.

Thank You

Contact Us

Appendix

Patient-Centered Communication and Care

- **Pay Attention to Language**
- What kind of language do you use to describe the behavior of persons served?
- Rather than naming a client a "no show," acknowledge that there may be barriers to their being able to attend an appointment.
- An individual's behaviors described as "noncompliant" or "resistant," may be behaviors that reflect a trauma response.
- **Promote language that removes judgment from the individual's behavior.**
- Remember, TIC asks not "What is wrong with you?" but rather "What happened to you?"
- Withhold judgment about clients' behaviors and instead focus on how the behavior may be an adaptation of traumatic stress.
- Focus on the individual's strengths, talents, and gifts.
- These strengths are ultimately how clients can begin to move toward recovery from traumatic stress (Galindo & Lewis-Stoner, 2020).

The Essentials of Essential Fatty Acids

- All fats, including saturated fatty acids, have an important role in energy metabolism and body functions, **the most important fats are the essential fatty acids (EFAs) since the body needs them to survive**.
- While the human body can manufacture most of the fats it needs from other fats, carbohydrates and protein, including cholesterol, saturated fatty acids and unsaturated fatty acids, **there are two groups of fatty acids, called essential fatty acids, based on linoleic acid (omega 6 group – which includes GLA) and alpha-linolenic acid (omega 3 group which includes EPA and DHA), which cannot be manufactured in the body.**

Why Are EFAs Deficient In Modern Diets?

- **Part of the problem is the food that's given to livestock and poultry**. It's a lot different from the natural food that these animals would normally consume in the wild or even in the past.
- So while both omega-3 (alpha-linolenic acid) and omega-6 (linoleic acid) are plentiful in the leafy plants consumed by roaming animals, providing nearly equal ratios of these EFAs, that's no longer the case when they're switched from grass to grains.
- The result is that the **fat in wild game and grazing ruminant contains roughly seven times more omega-3 fatty acids than animals raised for commercial meat**.
- Another reason is that processing or cooking changes healthy EFAs into unhealthy trans fatty acids. So the meat and eggs that we consume today that's already low in omega-3s is even more depleted once it reaches our tables (Di Pasquale, 2008).

Why Are EFAs, Especially The Omega-3s, Deficient In Modern Diets?

- **We consume a lot of vegetable oils most of which are rich in omega-6 fatty acids and poor in the omega-3s.**
- The increased omega-6/omega-3 ratio common to our modern diets, but not to man during most of his existence, can give rise to disturbances in cellular structure and function, and an increase in systemic inflammation, which can lead to dysfunction and disease.
- So although you can get the EFAs you need from food, **you have to know what you're doing and what you're eating (and perhaps more importantly what you're eating was eating), and even then, although you're trying to eat right, you likely will still need to supplement your diet with some of the essential fatty acids**.

Di Pasquale, 2008

What Makes Omega-3 Fats Special?

- Omega-3 polyunsaturated fatty acids (*n*-3 PUFAs), which can be found both in terrestrial animals and plants and in the marine world.
- *n*-3 PUFAs are responsible for numerous cellular functions, such as signaling, cell membrane fluidity, and structural maintenance.
- *n*-3 PUFAs also regulate the nervous system, blood pressure, hematic clotting, glucose tolerance, and inflammatory processes, and may be useful in all inflammatory conditions (Gammone, Riccioni, Parrinello et al., 2019).

What Makes Omega-3 Fats Special? (2)

- Omega-3 fats are a key family of polyunsaturated fats.
- There are three main omega-3s: Alpha-linolenic acid (ALA), the most common omega-3 fatty acid in most Western diets, is found in vegetable oils and nuts (especially walnuts), flax seeds and flaxseed oil, leafy vegetables, and some animal fat, especially in grass-fed animals. **The human body generally uses ALA for energy, and conversion into EPA and DHA is very limited**.
- **Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) come mainly from fish, so they are sometimes called marine omega-3s,** an **integral part of cell membranes throughout the body and affect the function of the cell receptors in these membranes**.

https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/fats-and-cholesterol/types-of-fat/omega-3-fats/

What Makes EPA Special?

- The prostaglandins are a group of lipids made at sites of tissue damage or infection that are involved in dealing with injury and illness.
- Prostaglandins **control processes such as inflammation, blood flow, the formation of blood clots and the induction of labor**.
- Prostaglandin E3 is formed from EPA.
- EPA reduces the production of the pro inflammatory Prostaglandin E2 from arachidonic acid (Ricciotti and FitzGerald, 2011).
- DHA may increase inflammatory response, while EPA balances the pro and anti inflammatory prostaglandins (So, Wu, Lichtenstein et al., 2020).

Pharmacological Treatments for BPD

- **There are no evidence based pharmacological treatments for BPD** (Paris, 2011; Johnson, Griffiths, Picchioni, 2017; Yee, Hawken, Baldessarini, Vazquez, 2019).
- However, a recent meta-analysis challenges that position.
- Aim to estimate **effectiveness of omega-3 fatty acids in BPD using meta-analysis**, with differentiation of affective, impulsive, and cognitive-perceptual symptom domains.
- Included randomized controlled trials (RCTs) that compared omega-3 fatty acids to placebo or any active comparator and pooled data using meta-analysis.
- Five studies were included, describing 4 RCTs testing effects of omega-3 fatty acids in 137 patients with BPD or BPD-related behavior.

Karaszewska, Ingenhoven, Mocking, 2021

Omega 3 Fatty Acids

- Emerging research suggests that omega-3 fatty acids can be used therapeutically in BPD. In treatment studies, researchers rely on just two omega-3 components: EPA and DHA.
- Silvio Bellino from the University of Turin in Italy showed that EPA (1200 mg per day) plus DHA (800 mg per day), when added to therapeutic doses of Depakote, reduced impulsivity, anger, and self-harm in a group of patients with BPD.
- Mary Zanarini and Frances Frankenburg from Harvard University showed that an 8-week course of treatment with EPA (1000 mg per day) outperformed placebo treatment in reducing depression and aggression in women with BPD.
- Brian Hallahan from Ireland showed substantial reductions in suicidal thoughts and depression among patients with a history of multiple self-injury attempts (70% of the study sample had BPD. Treatment in this study consisted of 12 weeks of daily EPA (1,220 mg per day) and DHA (908 mg per day).
- Paul Amminger from the University of Vienna in Austria focused on a group of adolescents with BPD whose symptoms also suggested high risk of progression to psychosis. Active treatment was daily EPA (700 mg) plus DHA (480 mg) for twelve weeks. The EPA+DHA produced large decreases measures of depression, tension, anxiety, and impulsivity and prevented psychosis in the high-risk patients.

https://lindnercenterofhope.org/blog/omega-3-fatty-acids-in-borderline-personality-disorder/

Omega-3 Fatty Acids in BPD

- Results: Random effects **meta-analysis showed an overall significant decreasing effect of omega-3 fatty acids on overall BPD symptom severity**.
- **Significant effects on affect dysregulation and impulsive behavior**.
- However, effects on cognitive-perceptual symptoms did not reach the significance threshold.
- Conclusions: **Available data indicate that marine omega-3 fatty acids improve symptoms of BPD, particularly impulsive behavioral dyscontrol and affective dysregulation.**
- **Marine omega-3 fatty acids could be considered as add-on therapy.**

Karaszewska, Ingenhoven, Mocking, 2021

Guidelines or Treatment for Psychiatric Disorders in Children and Adolescents

- The following dosage and duration are recommended in youth according to available randomized controlled trials and systemic literature review:

(1) ADHD: a combination of EPA +DHA ≥ 750 mg/d, and a higher dose of EPA (1,200 mg/d) for those with inflammation or allergic diseases for duration of 16–24 weeks;

(2) MDD: a combination of a EPA + DHA of 1,000–2,000 mg/d, with EPA:DHA ratio of 2 to 1, for 12–16 weeks;

(3) ASD: a combination of EPA + DHA of 1,300–1,500 mg/d for 16–24 weeks as add-on therapy to target lethargy and hyperactivity symptoms.

The current review also suggested that n-3 index and inflammation may be potential treatment response markers for youth, especially in ADHD and MDD, receiving omega-3 supplementation (Chang & Su, 2020).

Which Omega-3 to Supplement And What Doses

- International Society for Nutritional Psychiatry Research Practice Guidelines for Omega-3 Fatty Acids in the Treatment of Major Depressive Disorder recommend both pure EPA and EPA/DHA (ratio >2:1) combinations as effective as an adjunctive treatment for acute major depressive episodes, but more evidence is needed for recurrent major depressive episodes.
- Acute treatment: recommended therapeutic dosages should aim for 1–2 g/day of total EPA from pure EPA or 1–2 g/day EPA from an EPA/DHA (>2:1) combination.
- The dose is recommended to be increased in 2 weeks for non- or partial responders, to 2–4 g/day of total EPA and titrated up to the maximum dose (4 g/day of total EPA) in 4–6 weeks if tolerable. For non-responders, it is recommended to evaluate the quality of supplementary products.
- The panel endorses a prescriptive guideline of at least 8 weeks.

Guu, Mischoulon, Sarris et al., 2019

A Different Approach To Using Omega-3's

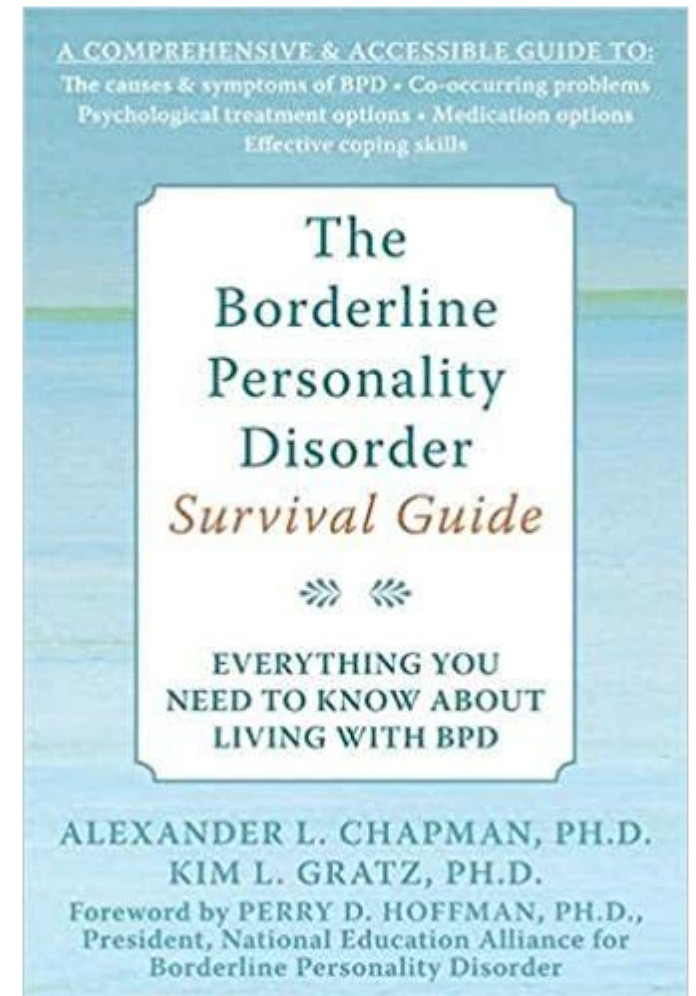
- Translational evidence implicates dietary deficiency in omega-3 fatty acids, including EPA and DHA, in the pathophysiology and potentially etiology of different psychiatric disorders.
- **Case–control studies have consistently observed low erythrocyte (red blood cell) EPA and/or DHA levels in patients with major depressive disorder, bipolar disorder, schizophrenia, and ADHD.**
- Low erythrocyte EPA + DHA can be treated with fish oil-based formulations, and extant evidence suggests that fish oil supplementation is safe and well-tolerated.
- These and other data provide a rationale for screening for and treating omega-3 fatty acid deficiency in patients with psychiatric illness. We have implemented a pilot program that routinely measures blood fatty acid levels in psychiatric patients entering a residential inpatient clinic (Messamore & McNamara, 2016).

A Different Approach To Using Omega-3's (2)

- To date over 130 blood samples, primarily from patients with treatment-refractory mood or anxiety disorders, have been collected and analyzed.
- **Our initial results indicate that the majority (75 %) of patients exhibit whole blood EPA + DHA levels at ≤4 percent of total fatty acid composition, a rate that is significantly higher than general population norms (25 %).**
- **In a sub-set of cases, corrective treatment with fish oil-based products has resulted in improvements in psychiatric symptoms without notable side effects.**
- In view of the urgent need for improvements in conventional treatment algorithms, these preliminary findings provide important support for expanding this approach in routine psychiatric practice (Messamore & McNamara, 2016).

Resources For Patients

- National Institute of Mental Health: www.nimh.nih.gov/health/topics /borderline-personality-disorder /index.shtml
- Borderline Personality Disorder Resource Center: http://bpdresourcecenter.org/
- National Education Alliance for Borderline Personality Disorder: www.borderlinepersonalitydisorder.com/index.html
- Chapman AL, Gratz KL. The borderline personality disorder survival guide: everything you need to know about living with BPD. Oakland (CA): New Harbinger Publications; 2007. Available in print or electronic form cost about $15



For Clinicians

- • National Education Alliance for Borderline Personality Disorder: www.borderlinepersonalitydisorder.com/index.html
- Behavioral Tech, LLC (for clinicians interested in dialectical behavior therapy): www.behavioraltech.org/index.cfm
- Paris J. Treatment of borderline personality disorder: a guide to evidence based practice. New York (NY): Guilford Press; 2008.
- Gunderson JG, Links PS. Borderline personality disorder: a clinical guide. Washington (DC): American Psychiatric Publishing; 2008.