Food for Thought

“All truth passes through three stages...
► First, it is ridiculed.
► Second, it is violently opposed.
► Third, it is accepted as being self-evident.”

Arthur Schopenhauer German philosopher (1788 – 1860)
Basic Assumptions

- Addiction in general is a complex combination of interactions between the biology of the “addict”, the nature of the substance abused, and the environment these take place.
- In other words, there is the nature of the person and the nature of the substance. The availability of the offending substances is the spark that starts the process.
- Addictions are about “fixing” feelings. Recovery is about doing the next right thing despite feelings.

Can Compulsive Overeating, Binge Eating Disorder, and Bulimia really be an Addiction?

The “Naysayers” –
Drug addiction, alcohol dependency, and process addictions (e.g. compulsive gambling) are substances and behaviors that are not necessary for life. Food is.

The “Believers” –
But so is water and air – however, people do not consume water & air beyond their biological needs or in ways that threaten their survival. So perhaps the problem is semantics.

drug addiction… not all drugs are addictive
food addiction… not all foods are addictive

EMOTIONAL OR BIOLOGICAL DETERMINANTS?

Much more often than not, disordered eating is approached as a psychological problem involving poor impulse control and “emotional eating.”

Not recognizing and treating the biological drivers of food cravings and overeating often leads to a poor outcome of treatment. Likewise for restricting types of eating disorders.

Treatment of an eating disorder demands attention to the nature of the substance (properties of the foods consumed), the nature of the person (psychological contributors) and the biology of the individual.
Dynamics of Pathological Eating

- Genetics? Appetite Gene, ED Gene(s)?
- Reward Circuits? – Dopamine/ Opioid Receptors
- Role of Serotonin and effect on Mood, Dopamine & Reward
- Classical Conditioning/Associative Learning?
- External food (salient) cues “trumping” internal cues
- Hormonal – ghrelin, leptin, insulin controlled?
- Emotional Eating
- Processed foods, “junk food environment” / potency
- Plasticity and Cross Addiction?
- Switching forms of eating disorders
- Stress > Cortisol > increased (or decreased) Appetite

THE CASE FOR ADDICTIVE EATING

So...What Have We Learned and Who Have We Studied?
A Couple of “Volunteers”

Dopamine – The Reward /Feel Good Neurotransmitter

- The greater the expectation and experience of the substance, the “stronger” the dopamine signal. [Learned /Conditioned]
- Drugs such as cocaine, amphetamines, alcohol, opiates stimulate increased levels of dopamine.
- Dopamine deficiencies will develop in response to repeated use/abuse of substances. The down regulation of D2 receptors creates tolerance.
- Dopamine deficiencies are thought to motivate drug seeking behavior / craving in an attempt to avoid withdrawal or experience the prior pleasant feelings. “Chasing the original high” – initial [feels good], middle stage [less good] and end [avoid pain of withdrawal]
The More Processed the more Addictive
“The Making of an Epidemic”

- Coca Leaf > Cocaine > Crack Cocaine
- Poppy Plant > Opium > Morphine > Heroin
- Grapes / Grains > Alcohol 6-12% > 40-50%
- Tobacco Plant > Pipes > Cigarettes
- Sugar Cane > Sugar > HFC [1970]
- Sugar, Salt, Fat > processed “bliss foods”
  combining these [chips, snack foods, etc]

“See Any Parallels to the Tobacco Industry?”

... “And a word from our sponsors”
Support from the Sugar Lobby

Coke beneficiaries include the Academy of Pediatrics, as well as a number of respected medical and health groups, including $3.1 million to the American College of Cardiology, more than $3.5 million to the American Academy of Family Physicians, $2 million to the American Cancer Society and roughly $1.7 million to the country’s largest organization of dietitians, the Academy of Nutrition and Dietetics.

McDonald’s has done the same as well as other fast and junk food manufacturers and was biggest sponsor to 2015 Annual Meeting of the American Dietetic Association.
"Frequently overeating highly palatable foods saturates the brain with so much dopamine that it eventually adapts by desensitizing itself, reducing the number of cellular receptors that recognize and respond to the neurochemical."

"Consequently, the brains of overeaters demand a lot more sugar and fat to reach the same threshold of pleasure as they once experienced with smaller amounts of the foods. These people may, in fact, continue to overeat as a way of recapturing or even maintaining a sense of well-being."
HEDONIC EATING

Research has shown that the brain begins responding to fatty and sugary foods even before they enter our mouth. Merely seeing a desirable item excites the reward circuit. As soon as such a dish touches the tongue, taste buds send signals to various regions of the brain, which in turn responds by spewing the neurochemical dopamine. The result is an intense feeling of pleasure.


Neuroplasticity, Chronicity, and Relapse

There appears to be plasticity associated with the addiction phenomenon in general as well as changes produced by addiction to specific addicting drugs. These findings also provide the basis for the current understanding of addiction as a chronic, relapsing disease of the brain with changes that persist long after the last use of the drug. Hence, the neuroplasticity in brain circuits and cell function induced by addictive substances [and behaviors] that are thought to underlie the compulsions to resume addictive behavior warrant further exploration. These investigations have significant implications for future therapies and treatments.

Sensitization, Cross-Addiction, and Relapse - Neuroplasticity

- Opposite of tolerance – repeated abuse of a substance will create a significant “sensitivity” or dopamine release with related substances [cross addiction].
- Binge eaters, in particular with sugar, will be more “sensitive to the effects of alcohol and cocaine than non-binge eaters
- Although tolerance is reversible it appears sensitization remains for extended periods and even a small amount of the offending substance [or behavior] will result in a heightened response. [See next slide]
- Supports “gateway” substances.
Food Addiction Is...

“Food addiction is a disease causing loss of control over the ability to stop eating certain foods. Scientifically, food addiction is a cluster of chemical dependencies on specific foods or food in general; after the ingestion of highly palatable foods such as sugar, excess fat and/or salt the brains of some people develop a physical craving for these foods. Over time, the progressive eating of these foods distorts a person’s thinking and leads to negative consequences they do not want but cannot stop.”

▸ From: Food Addiction Institute Website
▸ http://foodaddictioninstitute.org/what-is-food-addiction/

Anorexia, Restricting Type

Addictive Element[s]

▸ “If anorexic individuals experience endogenous DA release as anxiogenic rather than hedonic, this may explain their pursuit of starvation, because food refusal may be an effective means of diminishing the anxious feelings associated with the disorder.” [negative reinforcement]
▸ Avoidant Behaviors = Reward Aspect
Anorexia: Addictive Elements

- Many people with AN exercise compulsively and find little in life rewarding aside from the pursuit of weight loss. Like other traits, these too persist, in a more modest form, after recovery. These particular traits all involve the neurotransmitter dopamine, which contributes to altered reward and affect, decision-making, and executive control. There is considerable evidence that altered function of dopamine occurs in AN possibly contributing to over-exercise and decreased food intake.

- Eating Disorders Center for Treatment and Research, University of California School of Medicine
- Cocaine Study - restricting anorexics vs normal controls / pleasant vs aversive experience

SUGAR ADDICTION > USE > ABUSE

- The brain's pleasure center, called the nucleus accumbens, is essential for our survival as a species... Turn off pleasure, and you turn off the will to live... But long-term stimulation of the pleasure center drives the process of addiction... When you consume any substance of abuse, including sugar, the nucleus accumbens receives a dopamine signal, from which you experience pleasure. And so you consume more.

SUGAR ADDICTION - TOLERANCE

- The problem is that with prolonged exposure, the signal attenuates gets weaker. So you have to consume more to get the same effect -- tolerance. And if you pull back on the substance, you go into withdrawal. Tolerance and withdrawal constitute addiction. And make no mistake, sugar is addictive.

- Dr. Robert Lustig, Professor of Pediatrics in the Division of Endocrinology at the University of California
Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry.

Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in the individual pursuing reward and/or relief by substance use and other behaviors.

The addiction is characterized by impairment in behavioral control, craving, inability to consistently abstain, and diminished recognition of significant problems with one’s behaviors and interpersonal relationships. Like other chronic diseases, addiction involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

FOOD AND ADDICTION...

PART TWO: THE SOLUTION

PRINCIPLES OF RECOVERY

Your Recovery Just Ahead
MANAGED CARE CONCEPT OF TREATMENT

Tenets of Recovery

- Need to identify and abstain from the addictive substances (abstinence)-cross addiction
- Need to address mood / psychological issues contributing to maintenance of addictive eating (addressing depression if present and initiating better coping skills)
- Need to address the physical issues associated with food addiction (BMI, stress, diabetes)
- Eliminating isolation, participation with community based support groups, and cultivating a functional spiritual relationship with an entity other than oneself.

S.E.R.F.

“A Formula for long term recovery”

- SPIRITUALITY
- EXERCISE
- REST
- FOOD PLAN

See text “A Guide to ED Recovery” pages 95-106
Components of a Blended Treatment Model

- Structured Food Plan – eliminates “trigger” foods
- CBT + DBT = Harm Reduction
- Constructive Living Model – Transcending Feelings for “Right Action” (see “Guide to Eating Disorder Recovery”)
- Concurrent Treatment of Related Diagnoses
- Real World Setting – In Vivo experiences
- Use of Community based support groups
- Medication when needed
- Evidence Based Treatments
- Daily Living Skills [meal preparation, food shopping, etc.]
- Individualized Family Therapy

Elements of a Food Plan

- Prescribed by a registered dietitian familiar with food addiction model
- Often involves weighing, measuring food
- Consistent schedule of eating 3 to 5 times daily
- Identifies and eliminates trigger foods
- Focus on a food plan not a “diet” or weight loss
- Discourages focus on weight but rather restoration of health and end addictive eating / restricting
- Accountability
- Recognizes nutritional / caloric needs are a dynamic process with period adjustments needed

Constructive Living*

EASTERN PHILOSOPHY MEETS 12-STEP RECOVERY

RICHMOND, VA. – SEPT 28th, 2016

MARTY LERNER, PH.D.,
CEO MILESTONES IN RECOVERY
Principles of Constructive Living*

1. FEELINGS ARE UNCONTROLLABLE DIRECTLY BY SELF WILL
2. FEELINGS MUST BE RECOGNIZED AND ACCEPTED “AS IS”
3. EVERY FEELING, NO MATTER HOW UNPLEASANT, HAS A PURPOSE
4. FEELINGS CHANGE OVER TIME UNLESS RE-STIMULATED
5. FEELINGS / THOUGHTS CAN BE INDIRECTLY INFLUENCED BY BEHAVIOR
6. WE’RE RESPONSIBLE FOR WHAT WE DO NO MATTER HOW WE FEEL

COMMON MYTHS ABOUT FEELINGS…

► Feelings cause us to do what we do.
► We must “fix feelings somehow in order to get on with our lives.
► We have hidden [unconscious] feelings lurking in our psyches.
► Getting in touch with hidden feelings and letting them out is possible and necessary.
► “How do you feel about that?” should be the basic query in psychotherapy.
► “Working through” an issue / feeling, etc. is necessary in order to change [recover].
► Feelings must change to be motivated to change behavior[s].

MAXIMS – ADDICTION

► MOST, IF NOT ALL ADDICTIONS, ARE ABOUT ATTEMPTING TO CONTROL OR MANIPULATE FEELINGS…
► MOST, IF NOT ALL OF RECOVERY, IS ABOUT CULTIVATING THE DISCIPLINE OF TRANSCENDING FEELINGS AND DOING THE NEXT RIGHT THING…
► RECOVERY BEHAVIOR IS ABOUT DOING GOOD AND NOT ALWAYS FEELING GOOD
► ADDICTIVE BEHAVIOR IS USUALLY ABOUT OUR DEMAND TO FEEL GOOD RATHER THAN DO GOOD
► RECOVERY AS IN LIFE, WE MAY BE DOING GOOD AND FEELING BAD, AND CONVERSELY, DOING BAD AND FEELING GOOD AT THE TIME.
► FEELINGS TAKE CARE OF THEMSELVES OVER TIME
CL AND 12-STEP PROGRAMS

- "Judged by our actions and not intentions" – What we do has priority over “fixing” how we feel
- Living in the solution rather than the problem...
- Acceptance of reality ["radical acceptance" of self and others]
- Responsible for what we do and the consequences [good or bad]
- Doing the next right thing despite feelings [fear, anger, jealousy, etc.]
- Graditude [Naikan from CL]
- Humility
- Knowing what we can change and what we cannot change
- Mindfulness [living in the present, each moment a new one]

CL PRINCIPLES AND 12-STEP RECOVERY

- Making amends [Naikan – "WHAT HAVE I TAKEN, WHAT HAVE I GIVEN BACK, WHAT TROUBLES HAVE I CAUSED"]
- We are not responsible for our feelings
- We are not responsible our thoughts either
- We are accountable for our actions
- Getting away from self-focus – Appropriate distraction
- Restraint of action [Tolerance, Patience] – [Feelings fade over time unless restimulated] – "Restraint of tongue and pen"
- Neither a 12-step program or CL is a form of "therapy" – rather both are a discipline and lifestyle

CL PRINCIPLES AND 12-STEP PROGRAMS

- Both recognize self will and reliance on a source other than self
- To feel gratitude, love, healthy, etc., one must do grateful, loving, healthy behaviors.
- Reflection / Meditation leads to "Right Behavior"
- Both encourage doing positive deeds without seeking acknowledgement [giving anonymously]
- Feelings fade in time / "Will not regret the past" [AA Big Book]
- Self-esteem necessitates doing esteemable things
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*References to topics available upon request*