# CO-OCCURRING DISORDERS: TREATING EARLY LIFE DEVELOPMENTAL TRAUMA COMPLICATED BY BORDERLINE PERSONALITY DISORDER AND ADDICTION



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### TRAUMA-AND STRESSOR-RELATED DISORDERS

- Psychological distress following trauma yields a heterogeneous response (often mixed)
  - In some cases the response can be understood in an anxiety or fear-based context
  - In others the clinical presentation is one of anhedonia and dysporhia, externalizing anger and aggression or dissociation

#### **PTSD**

 A 2007 analysis from the Institute of Medicine and the National Research Council found that, statistically, people who fail to overcome trauma tend to be people who are already burdened by psychological issues—either because they inherited them or because they suffered trauma or abuse as children. According to a 2003 study on high-risk twins and combat-related PTSD, if you fought in Vietnam and your twin brother did not—but suffers from psychiatric disorders—you are more likely to get PTSD after your deployment.

#### **PTSD**

 If you experienced the death of a loved one, or even weren't held enough as a child, you are up to seven times more likely to develop the kinds of anxiety disorders that can contribute to PTSD, according to a 1989 study in the British Journal of Psychiatry. And according to statistics published in the Journal of Consulting and Clinical Psychology in 2000, if you have an educational deficit, if you are female, if you have a low I.Q., or if you were abused as a child, you are at an elevated risk of developing PTSD. These factors are nearly as predictive of PTSD as the severity of the trauma itself.

### TRAUMA AND DEPRERSSION

- The longer depression persists, the more likely the subjects interviewed are to recount having undergone sexual abuse, which no doubt means that they have been exposed to severe stress on many occasions in early life
- In addition to the usual psychological trauma, it has been demonstrated that this stress modifies the neurochemistry and structure of the brain, making it more vulnerable to depression

### TRAUMA AND DEPRERSSION

- The results reveal that 10% of all the people interviewed said that they had undergone sexual abuse as children, but of those who suffered severe depression for more than five years, this proportion approached 40%
- It is highly likely that in the adult female population more than half of those with severe depression for more than five years suffered sexual abuse as children.

Persistence of chronic major depression: A national prospective study. Mauro García-Toro, Jose M. Rubio, Margalida Gili, Miguel Roca, Chelsea J. Jin, Shang-Min Liu, Camilla Bastianoni, Carlos Blanco. Journal of Affective Disorders, November 2013

### NEUROBIOLOGICAL FINDINGS

 The findings demonstrate that the most consistent gray matter abnormalities in individuals exposed to childhood maltreatment are in relatively latedeveloping ventrolateral prefrontallimbic-temporal regions that are known to mediate late-developing functions of affect and cognitive control

Lena Lim; Joaquim Radua, M.D.; Katya Rubia, Ph.D. *Gray Matter Abnormalities in Childhood Maltreatment: A Voxel-Wise Meta-Analysis.* Am J Psychiatry April 29,2014.

### **NEUROBIOLOGICAL FINDINGS**

• The scientists found that an area in the lower frontal lobe, the so-called *orbitofrontal cortex*, exhibited smaller volumes in the healthy individuals that reported that they have problems with regulating emotions. The greater the problems, the smaller the volume detected. The same area is known to have a smaller volume in patients with borderline personality disorder and antisocial personality disorder.

P. Petrovic, C. J. Ekman, J. Klahr, L. Tigerstrom, G. Ryden, A. G. M. Johansson, C. Sellgren, A. Golkar, A. Olsson, A. Ohman, M. Ingvar, M. Landen. Significant gray matter changes in a region of the orbitofrontal cortex in healthy participants predicts emotional dysregulation. Social Cognitive and Affective Neuroscience, 2015; DOI:10.1093/scan/nsv072

### **Response To Threat**

HYPERAROUSAL	DISSOCIATION
HYPERVIGILANT	DISENGAGE
REACTIVE	SUSPENSION OF TIME
TACHYCARDIA	BRADYCARDIA
NOREPINEPHRINE	ENDOGENOUS OPIOIDS
FLIGHT: Panic	FREEZE: Fear
FIGHT: Terror	DEREALIZATION
OLDER CHILDREN	DEPERSONALIZATION
MALES	COMPLIANT
	YOUNG CHILDREN
	FEMALES

## COMPLEX POSTTRAUMATIC STRESS DISORDER

- Repeated inescapable early life trauma
- Multigenerational trauma
- May have genetic basis
  - Gene coding for dopamine transporter (DAT)
- Involves changes in physiology, self and identity, memory and dissociation

# COMPLEX POSTTRAUMATIC STRESS DISORDER

- PHYSIOLOGICAL
  - AFFECT REGULATION AND IMPULSE CONTROL
  - SOMATIZATION AND MEDICAL PROBLEMS
- SELF AND IDENTITY
  - ALTERED SELF AND OTHER PERCEPTION
  - ALTERED WORLD VIEW
- CONSCIOUSNESS
  - ALTERED ATTENTION AND CONSCIOUSNESS

### Physiological

- Acute Effects of Hyper-arousal
- Chronic Effects of Hyper-arousal
- Acute Effects of Dissociation
- Chronic Effects of Dissociation

## Acute Effects of Hyper-Arousal

- Increased Sympathetic NS (Fight/Flight)
- Decreased pain in the short run
- Decreased immune response
  - Cortisol reduces inflammation
  - Cortisol suppresses immune response

## Chronic Effects of Hyper-Arousal

- Cortisol reserves get used up (hypocortisolemia)
- Immune system becomes overactive
  - Rebound effect: get sicker than if not stressed
  - Increased inflammatory response
  - Increased risk of autoimmune disorders
- Osteoarthritis
- Crone's Disease
- Multiple Sclerosis

### **Acute Effects of Dissociation**

- Increased Parasympathetic NS
  - Decrease:
    - Heart rate
    - Respiration/O2 requirements
    - Blood pressure
- Other Effects:
  - Increased Endorphins/Enkaphalins
  - Decreased intensity of inflammatory response
  - Decreased sensation of pain

# Chronic Effects of Dissociation

- Depleted supply of endorphins leads to:
  - Chronic pain
  - Substance abuse (attempt to recharge endorphins)
  - Social isolation
  - Memory impairment
  - Depression

### **Self And Identity**

- Insecure attachment-Lack of confidence in "others" availability
  - Disorganized type
- Disorganized attachment themes
  - HELPLESSNESS
    - Abandonment
    - Betrayal
    - Failure
    - Dejection

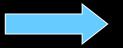
## **Self And Identity**

- Disorganized attachment themes
  - COHERSIVE CONTROL
    - Blame
    - Rejection
    - Intrusion
    - Hostility

### **Abandonment Fear**

TRAUMA ATTACHMENT

**PROBLEMS** 



ABANDONMENT FEAR



**INCREASED ANXIETY** 



**INCREASED IMPULSIVITY** 

## BORDERLINE PERSONALITY DISORDER

 Kiera Van Gelder in her memoir, The Buddha and the Borderline, of her own evolution, "Am I recovered? I no longer struggle with the urge to hurt or kill myself, but other symptoms persist: my impulsivity, my sensitivity, my shifting moods, and my inherent fragility when I'm under stress or begin to feel connected to someone. I still have difficulty being alone, a deep need for security, and a gnawing dissatisfaction with what is."

# BORDERLINE PERSONALITY DISORDER

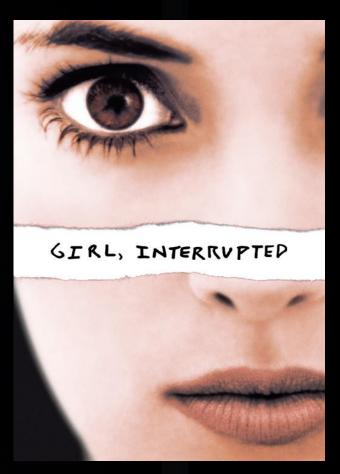
 These individuals suffer from profound feelings of aloneness or annihilatory panic and worthlessness, having failed to achieve a solid sense of self. Because their emotional boundaries are fluid, the inevitable ups and downs of everyday life often crush them. In practice, it is rare for one clinician and one individual to have the opportunity to work together over the long haul. Therefore clinicians' understanding is necessarily influenced by shorter-term perspectives

## BORDERLINE PERSONALITY DISORDER

- DIALECTICAL BEHAVIOR THERAPY (MARSHA LINEHAN)
  - AN INNOVATIVE FORM OF CBT
    - HELPS DETECT AND COMBAT DISTORTED THOUGHTS
    - COUNTERACT PROBLEMATIC BEHAVIORS AND ASSOCIATED EMOTIONS
    - INCORPORATES MEDITATIVE PRACTICES-MINDFULNESS
    - SELF-SOOTHING TECHNIQUES TO MANAGE MOOD SWINGS (DEEP BREATHING, TAKING WALKS, LISTENING TO MUSIC, ETC.)
    - BUILDING HEALTHY RELATIONSHIPS

## Treatment Planning Based on Symptom Clusters

- Identity Cluster (Projection)
  - Abandonment fears
  - Unstable self-image
  - Relationship problems
- Affective Cluster (Splitting)
  - Reactivity of mood
  - Inappropriate, intense anger
- Impulsive Cluster
  - Suicidal behavior
  - Potentially self-harming behavior (substance abuse, sex, binge eating, spending)



## Therapeutic Relationship

A SECURE ATTACHMENT THAT
PROMOTES GROWTH OF NEURAL
INTEGRATIVE FIBERS
(ESPECIALLY ORBITOFRONTAL
CORTEX)

- Time consuming
  - Fewer resources
    - Fewer alternative
- Powerful wishes to create clinician into a friend, lover, parent or enemy
- "Therapeutic rupture"
- Impulsivity-Limit Setting
- Affective Storm-Calmness and Unflappability
- Polarization of Thought and Attitude-Integration and Finding Middle Ground

- GOAL
- PREREQUISITES
  - Structure
  - Therapy threatening
  - Life threatening
- MEDICATION IF NEEDED
- BEHAVIORAL
  - Limit setting
  - Treatment plan
- CLOSURE



 No pharmacologic treatment has received regulatory approval for borderline personality disorder, in the United States or elsewhere. According to a 2010 Cochrane systematic review, 27 randomized clinical trials of pharmacologic agents had been conducted in borderline personality disorder up to 2008 (1).

- In the past 5 years, most such trials have focused on mood stabilizers and second-generation antipsychotics.
- Among the second-generation antipsychotics, there has been one study with positive findings for aripiprazole (Abilify), one study with negative findings for ziprasidone (Geodon), and three studies with mixed results for olanzapine (Zyprexa).

 Studies have suggested efficacy for several anticonvulsants, including valproate, lamotrigine (Lamictal), and topiramate. There have also been a number of negative studies for antidepressants, including fluoxetine, fluvoxamine and phenelzine.

• A well-designed clinical trial that provides evidence that low-dosage quetiapine (Seroquel 150 mg) is effective in the short-term treatment of some of the core symptoms of borderline personality disorder.

Tohen, Pharmacologic Treatments for Borderline Personality Disorder." *American Journal of Psychiatry*, 171(11), pp. 1139–1141.

### • COUNTERTRANSFERENCE

- Clinicians tend to feel overwhelmed by strong emotions and intense needs. In particular, more than with most patients, therapists feel like they have been pulled into things but do not realize it until after the session is over. Borderline patients can "frighten" clinicians, who experience high levels of anxiety, tension, and concern

### **Identity Cluster**

- Treatment
  - Behavioral
    - Structure
    - Immediate reward
  - Medication
    - Neuroleptics
    - SSRI's



### **Affective Cluster**

- Treatment
  - Behavioral
    - Structure
    - Setting limits
      - Fair
      - Consistent
      - Available
  - Medications
    - Mood stabilizers
    - Antidepressants



### Labeling Our Feelings

 "We found the more mindful you are, the more activation you have in the right ventrolateral prefrontal cortex and the less activation you have in the amygdala. We also saw activation in widespread centers of the prefrontal cortex for people who are high in mindfulness. This suggests people who are more mindful bring all sorts of prefrontal resources to turn down the amygdala."

### Labeling Our Feelings

- Verbalizing our feelings and labeling emotions makes them less intense.
- Photograph of an angry or fearful face causes increased activity in the amygdala
  - Creates a cascade of events resulting in "fight or flight" response
- Labeling the angry face changes the brain response

### Labeling Our Feelings

- Labeling the response caused the amygdala to be less active and the right ventrolateral prefrontal cortex to activate.
- Using mindfulness and labeling the feelings one experiences allows the prefrontal cortex to override the amygdala.
  - Matthew Lieberman, UCLA, Psychological Science, May 2007

### **Impulsive Cluster**

- Self-destructive behavior
  - A/D use
  - Suicidal and parasuicidal behavior
    - Hurt self
    - Dissociation
    - Reduce anxiety
  - Eating disorders

### **Impulsive Cluster**

- Assessment
  - Elaborate
- Treatment
  - Contracts
    - Setting
    - Patient's responsibili
    - Alternatives
  - Medications



### Consciousness

- Dissociative adaptations
  - Automatization of behavior
    - Deficits in judgment, planning and goaldirected behavior
  - Compartmentalization of painful memories and feelings
  - Detachment from awareness of emotions and self
- Naltrexone

### Consciousness

- Dissociative detachment may numb the body as well
- Smaller hippocampal volume
  - Rich in glucocorticoid receptors
  - Smaller the size the greater the level of dissociation
- Higher connectivity between the right insula and the left ventrolateral thalamusinvolved in emotion and consciousness

### STAGES OF TREATMENT

- STAGE ONE- STABILIZATION, TRUST AND SAFETY
  - Alliance building, safety, affect regulation, support, self-care and stabilization issues
- STAGE TWO-TRAUMA WORK
  - Resolution and integration of trauma
- STAGE THREE- LEARNING TO LIVE GACEFULLY IN THE MOMENT
  - Self and relational development and daily life enhancement

## POST-TRAUMATIC STRESS DISORDER: Treatment

- COGNITIVE BEHAVIORAL THERAPY (CBT)
  - -Psychoeducation
  - Anxiety Management
  - -Cognitive Restructuring
  - -Imaginal and in-vivo exposure
  - -Relapse Prevention

## STAGE ONE- STABILIZATION, TRUST AND SAFETY

- TREATMENT OF LONGER DURATION
- SETTING LIMITS
- ATTACHMENT ISSUES
- PSYCHOEDUCATION
  - EXPLAIN TREATMENT
  - EXPLAIN COMPLEX PTSD

## STAGE ONE- STABILIZATION, TRUST AND SAFETY

- What has changed?
- Closed contract
- Stabilization
  - Physiological
  - Psychological
  - Social
  - Spiritual
- Trust
  - Validate feelings
  - Map of the World
  - Rapport

# PHYSIOLOGICAL STABILIZATION

- ◆ Medications
  - SSRI's (improves memory and concentration)
    - Sertraline (Zoloft)
    - Paroxetine (Paxil)
  - Dissociative symptoms
    - Naltrexone
    - Clonidine (Catapres)
  - Aroused, hyperactive
    - Propranolol (Inderal)
    - Clonidine (MAY ALSO HELP WITH SLEEP)

# PHYSIOLOGICAL STABILIZATION

- Medications
  - Fearful, paranoid and/or psychotic
    - Atypical antipsychotics
      - Clozapine,
      - Risperidone
  - Labile, impulsive and/or aggressive
    - Anticonvulsant/mood stabilizers
      - Lithium
      - Tegretol
    - Atypical antipsychotics
- Baclofen (Lioresal) active at GABA receptor, improved symptoms of veterans with PTSD symptoms
- Propranolol given within hours after trauma reduced posttraumatic symptoms and lower risk of PTSD
- Prazocin (Minipress)
  - Reduce intensity and frequency of nightmares

# PSYCHOLOGICAL STABILIZATION

- Affect Regulation
- ◆ Behavioral
  - Decrease Stress
- Cognitive-behavioral
  - Decrease confusion
- Interpersonal
  - Decrease interpersonal distress

SAFETY PLAN
FOUNDATION PROGRAM

# PSYCHOLOGICAL STABILIZATION

- Affect Regulation
  - Moving attention away from internal "cycling"
    - Panic
    - Flashback storms
    - Intrusive thoughts
    - Brief psychotic breaks
  - Attention toward
    - Non-autonomic body sensations
    - Details of room
    - Therapists voice

# PSYCHOLOGICAL STABILIZATION

- Affect Regulation
  - Breathing
  - Identifying and discriminating emotions
- Cognitive interventions
  - Normalization of experience
  - Reframing
  - Assessing beliefs and assumptions about trauma
- Behavioral interventions
  - What are triggers?
  - What do I think and do after the trigger?

## Behavioral Safety Plan On 3x5 Index Card

#### MY PERSONAL SAFETY PLAN

- Remember that symptoms go away
- Write down the symptoms on a piece of paper
- I can write in my journal
- I can call my sponsor (299-289-5555)
- I can call my lover (299-426-1776)
- I can read from my favorite recovery book
- I can read affirmations

### **Behavioral Foundation Program**

TASK	MON	TU	WED	THU	FRI	SAT	SUN
SH							
TX							
FUN							
NUT							
PEX							

### SOCIAL STABILIZATION

- Decrease social alienation
  - Self help
  - Church
  - Support groups
- Ability to engage in competent social relationships is important prognostic variable
- Self care is important (diet, exercise, self-grooming)

### **TRUST**

- Validate feelings
  - Anger
  - Self-critical
  - Depression
  - Withdrawal
- Enter the map of the world
  - "World has fundamentally changed"
  - "World is unfair"

### **TRUST**

- Past history of assessment
- Past experience with rules
- Power issues in therapeutic relationship
- Case
  - 35 y.o. female (Marsha) having difficulty at work with supervisor that she fears may interfere with future promotions

### SAFETY

- Self-injurious behavior
  - Assessment
    - Elaborate
  - Contract
    - Patient responsibilities
    - Clinician responsibilities
    - Alternatives
  - Level of care

### Non-Suicidal Self Injury

- What is the function of self-injury?
  - Did patient want to die?
    - Usually "No"
  - A way to tolerate inescapable and unbearable emotions, most often intense anxiety
    - Stuck in a bad situation and cannot find another way to cope
  - Self-injury is reinforced to the extent the behavior is effective

## Non-Suicidal Self Injury

- Self-injury is reinforced to the extent the behavior is effective (continued)
  - Both positive and negative reinforcement
  - Negative reinforcement is rewarding by making and unpleasant situation stop
  - Positive reinforcement is rewarding by gaining something after the behavior
- When negative reinforcement generally relieves uncomfortable emotions like anger, anxiety, guilt and numbness
- When positive reinforcement includes "feeling something even if it is pain", punishing oneself and feeling relaxed

### Non-Suicidal Self Injury

- When positive reinforcement includes "feeling something even if it is pain", punishing oneself and feeling relaxed (continued)
  - Males more likely to want to "make others angry"
  - Females more likely to want to "punish myself"
- Endogenous Opioids
  - Hypothesized that injury induces the release of endogenous opioids which creates reward
    - B-endorphins comfort negative emotions (Stanley B et al, J Affec Disord 2010:124 (1-20:134-140))
  - Early childhood trauma changes the density of opiate receptors and level of B-endorphin baseline

#### ASK ABOUT SLEEP

- Decades ago sleep problems were identified as a short-term (one year) risk factor (Fawcett et al. Am J Psych. 1990:147(9):1189-1194.)
- Recent studies also emphasize sleep disturbances as risk factor (Pigeon, WR et al. Am Journal Pub Health;2012;102(s1):S93-S97.)
- Importantly, even after controlling for depression, hopelessness and alcohol problems, sleep was identified as a risk factor
- No stigma attached to sleep

#### HIGH ANXIETY

- Anxiety and agitation can mediate the change from thinking about suicide to acting on those thoughts
- Anxiety Disorders strongly associated with suicide (Nock, MK et al. *Mol Psychiatry* 2010;15(8):868-867.)
- It is not unusual for a patient who does not appear anxious to express profound internal agitation/anxiety
  - This can be described as anguish or psychache
    - "Do you feel like you are crawling out of your skin?"
    - "Do you feel like you are about to explode

#### ANTIDEPRESSANTS

- Adolescents and young adults are the group at greatest risk for suicidal ideation and are the basis for the FDA's black box warnings issued in 2009
- For those over 25 the risk is the same as with placebo
- For older adults, antidepressant treatment appears to reduce suicidality
- No matter what age monitor closely
  - Initiation period
  - When dose is increased or decreased
  - After discontinuation

#### FIREARMS

- Suicide attempts with guns are 90% fatal
- More than half of all successful suicides are by gun (Miller and Hemenway. N Engl J Med.2008;359:989-991.)
- In 2009 more gun deaths are the result of suicide (around 19,000) than homicide (around 11,500)
- Always ask about access to gun
- APA guidelines about removal of firearms (Simon RI. Suicide Life Threat Behav.2007;37(5):518-526.)
- Means Restriction Receipt-a signed receipt by patient stating they have removed potential means

#### TRIGGERS

- Risk is not a binary issue: "You're either suicidal or you are not"
- Think of it as a light with a dimmer switch
  - Psychosocial triggers, physical pain, sleep problems or a worsening illness effectively "turn up the light"
  - Elimination or amelioration of these issues can "turn down the light"

Lineberry, TW. "Seven Clinical Pearls for Suicide Risk Assessment. *The Carlat Report Psychiatry.* Vol. 10, No. 6, June 2012, pgs. 1-3.

#### SAFETY PLAN

- Contracting for safety has no evidence base and asking the patient to sign a document stating they will not harm themselves can be problematic
  - Promise without "how to not harm self"
  - May feel they cannot talk about being suicidal
  - May give clinical team a false sense of security
- Develop a plan for "what to do" when patient feels suicidal
- Safety Planning Intervention (SPI) is a brief intervention with ongoing clinical trial but is a Suicide Prevention Resource Center/American foundation for Suicide Prevention best practice

### **STAGE TWO-TRAUMA WORK**

- Revisiting the trauma
- Graduated exposure using behavioral exposure and attachment narrative technique
- Resolution of core issues
  - Guilt and shame
  - Responsibility and self-blame
  - Mistrust
  - Toward self-compassion and self-forgiveness

## REMEMBERING EARLY UNHAPPY EVENTS

- Non-trauma individual
  - Left and Right hemisphere both light up
- Traumatized individual
  - Only Right hemisphere lights up
- Difficulty putting words to feelings
- Geared to look for danger
- Normal or neutral stimuli not paid attention to (life passes you by)

## TELLING YOUR STORY

- Autobiographical memories are at the core of our sense of self
- Storytelling weaves together body sensations, feelings, thoughts and behaviors
- Stories provide an opportunity for selfreflection

## **Behavioral Exposure Therapy**

- International Society for Traumatic Stress Studies
  - Behavioral Exposure Therapy
    - Imaginal Exposure
      - Repeated recounting of traumatic memories
    - In Vivo Exposure
      - Confronting trauma related situations
    - Virtual Reality
      - Computer simulation
  - May be mediated by Prefrontal Cortical inhibition of Amygdala

## Behavioral Exposure Generally Combined With

- Relaxation Training
  - Controlled Breathing
  - Muscle Relaxation
- Psychoeducation
- Cognitive Restructuring
  - Safety, trust, power, esteem and intimacy

### **Clinical Case Study**

- 29 y.o. female (Peggy) in early recovery for cocaine addiction with history of early life trauma
  - Use of grief letter with elements of Imaginal and In Vivo Behavioral Exposure
    - What do you remember?
    - How has it impacted your life?
    - How do you feel about it now?
- Decrease hyperarousal, avoidance and intrusive symptoms

## Trauma Treatment In Early Recovery from Addictive Disorder

- Estimated 30-60 percent of individuals with substance abuse disorders have PTSD
- ◆ Joint Treatment of PTSD and Cocaine Abuse
  - Therapy combines
    - Substance abuse treatment
    - Behavioral exposure for PTSD
  - 39 participants, 15 completed course of therapy
    - 66% reduction in intrusive symptoms
    - 70% reduction in avoidance symptoms
    - 47% reduction in hyperarousal symptoms

(NIDA Notes, Vol. 18, No. 1)

## STAGE THREE- LEARNING TO LIVE GACEFULLY IN THE MOMENT

- On-going meaning in life
- Living in the moment
- Continued growth and complexity of Prefrontal Cortex
- Current life stage issues
- Spirituality
- Continued development of support issues including intimacy issues
- Issues related to career and/or vocation

## STAGE THREE- LEARNING TO LIVE GACEFULLY IN THE MOMENT

#### RELAPSE PREVENTION

- Helping patient deal with residual symptoms as treatment should significantly diminish symptoms but will not make all of them go completely away
  - Example-nightmares and insomnia
- Develop plans for maintaining abstinence if alcohol and drugs are a problem
- Develop plans to manage Eating Disorders, gambling and other process addictions
- On-going personal maintenance plan