

# Chemical Dependency and Mental Health

October 12, 2017

## I Thank you for inviting me. Brief bio

Happy to support you in your very important work:

My familiarity mostly with CPS GALs and being both a volunteer and paid guardian for two individuals with disabilities,

## II Provide family-centered addict recovery: from 15 strategies of intervention to family recovery counseling healing together

### III Alcohol/Drug Abuse versus Addiction

- A. CD: Though some are very good at hiding it, the damage is eventually detectable, so early detection is critical.
  - 1. diminished control: you do not dx, but to realize deterioration to fatality and no spontaneous recovery (**Handouts: diminished control**)
  - 2. You will likely not know if abuse or addiction, so, it needs to be assessed.  
Takes expertise to dx: case examples, 2 recent:
    - a. Superior Court: two dx from 2 assessments
    - b. From another professional assessed 5 years ago.
  - 4. Genetic Vulnerability: **“like an allergy”** but, it is about impact on neurological functioning, do not judge the person, he/she does not understand yet and needs help to stop the use
    - a. Genetic Handout: Harry Potter and the wand (**handout**)
    - b. Do all meds affect everybody the same? No...genetics
    - c. Alzheimers,
  - 5. Change in neuro functioning  
**SLC 6A4 (6A7) for alcoholism; DA in NA for opioids, cannabis, benzo,**  
Like a Dire thirst

## II Alcohol/Drug Use Alters Emotions

- A. Children and adults require supportive emotional nurturing (i.e. responsive relationships)
- B. We all need emotional support  
Sheriff in Okanogan, Marine Recon, Vice Pres., two Spokane fire chiefs; OK to cry; even men
- C. **River of Emotions: Nature of Grief, trauma, Trauma**
- D. Children do not get responsive emotional support when caregivers not emotionally sober
- E. Identifying impact on children of parents' specific behavior as affected by chemical dependency/mental illness.
  - 1. **Humans** need to express all emotions in broad range but extremes are sign of dysregulation (family from up north), we all need emotional support
  - 2. **Emotions during or after alc/drug use are not genuine and do not nurture children (crying during or soon after drug/alcohol use is not cleansing)**

### III Mental Health Issues

#### **(behavior that is not responsive to the situation and emotional extremes)**

- A. Depression and Anxiety disorders: Most often River of human emotions is backed-up without support and nurturance and then forms a chronic pattern resulting in depression and anxiety; some genetic vulnerabilities
- B. Genetic or Neuro Based  
Depression, schizophrenia, Obsess/Compulsive, etc.
- C. Developmentally Originating: Personality Dis: borderline, sociopathy, etc.: often trauma
- D. **Cultural norms against raising concern, we need to:**
  - 1. I care about you....(compassion)  
I am concerned about.....(gentle and respectful)  
Let's find out what can help you feel better  
(blame is a diversion from pain and help)
  - 2. You risk rejection; better than not saying anything
  - 3. Suicide: act and let the person decline help (838-4428)

### IV Challenge of Raising children: Much more difficult than driving a vehicle

- A. Any impairment is disadvantageous to the child, even mild intoxication
- B. Being under influence or intoxication robs child of adult's emotional honesty and this is the foundation of all effective coping and relational health
- C. Do not judge impairment by income or professional stature
- D. Warning Signs:
  - 1. Obvious when the child who is not happy
  - 2. Also, watch for kids who are achievers; dentists, attorneys, professional, politicians, etc. (not just kids' reaction, but the environment is indicator)
  - 3. When kids get to know, and be known by others more is revealed; few social connections is a warning sign
- E. **When children are not shown respect and the environment is not responsive to developmental needs; not like Bill Cosby line, Bobby Knight**
- F. **Adults need to be responsive to, and empower child to learn to cope by feeling the pain/discomfort, then growing new skills and capacities**
- G. Intervention
- H. FRP: address relapse  
ROI  
Facilitate increase in emotional safety to communicational emotions for healing, healthy problem solving, etc.

Intervention Specialists, LLC                    838-2111  
Family Intervention and Family-Centered addiction Recovery

Breakthrough Recovery                    509-927-6838  
addiction recovery outpatient

Frontier Behavioral Health                    509-838-4651  
Public full mental health services  
Medicaid/medicare

1<sup>st</sup> Call For Help (24 hour crisis)                    509-838-4428

Adolescent addiction:

Sliding scale

Daybreak                    509-444-7033

Excelsior                    509-328-7041

# Joe Terhaar

August, 2017

## **Educator, Trainer**

### **Doctor of Philosophy in Leadership Studies**

NIDA-Funded Researcher of Family Intervention

Nationally Recognized Trainer in Addictions (NAADAC)

Nationally Published Author in Addictions

Court Expert Witness in Addictions

## **Clinician**

### **Master of Science in Counseling Psychology**

Licensed Mental Health Counselor

Licensed Marriage and Family Therapist

Certified Intervention Professional

Full Member: Association of Intervention Specialists

Marriage and Family Therapy Licensure Supervisor

## **CAREER HIGHLIGHTS:**

Provider of family-centered addiction recovery placing the family as the center of recovery and healing; trained with Robert Rhoton, PsyD in family system trauma techniques; nationally published article in Advances in Addiction & Recovery (NAADAC, 2014); presenter at the NAADAC National Conference 2014, and the Association of Intervention Specialists National Conference 2013, advancing the integration of neurobiology comprehension into the family intervention equation; in 2001 awarded a rare dissertation research grant from the National Institutes of Health, National Institute on Drug Abuse (NIDA) to study family addiction intervention; expert witness for courts litigating issues of family treatment practices, addiction diagnosis while effective in settling \$1.5 million case of family intervention malpractice; facilitator for critical update in Association of Intervention Specialists Code of Ethics in 2015; practicing licensed mental health counselor, marriage and family therapist, having been a certified chemical dependency counselor for over 30 years with experience in drug prevention, intervention, and treatment; family-trauma recovery therapist; Full Member of the Association of Intervention Specialists and a Certified Intervention Professional using fifteen distinct strategies in helping families; educator and trainer of addiction professionals since 1983 and national NAADAC Education Provider since 2006 (addiction counselors); Washington State-approved marriage and family licensure supervisor since 2008; author of research-grounded concepts, skills, and objectives for the articulation of family intervention granted provisional patent in 2005; national internet radio talk show host for Overcoming Addiction: Hope with Prevention, Intervention, and Treatment with Dr. Joe, on the Voice America network (2.5 million listeners) in 2013-14; Graduate Fellowship Award, Eastern Washington University in 1979; *Who's Who Among Students In American Colleges and Universities*, 1976-77; author of training curricula for school teachers, social workers, and drug counselors with parts adopted across the U.S. from Seattle to Georgia; **court appointed guardian for two adults with developmental disabilities.**

## Genetics and Addiction

Confronting 'denial' of addiction alone risks being oppressive and overlooking other aspects that may assist in supporting motivation to abstain from drug use. Research and the accumulated wisdom of many, many people surviving their own addiction has consistently shown that abstinence is the only sure approach to surviving. Toward sustaining abstinence, many professionals increasingly use a broader bio/psycho/social approach in supporting addiction prevention/intervention and recovery efforts than in the past. But, few have yet incorporated research regarding the genetic predispositions for addiction specific to the drug of choice.

Assisting drug users and families in appreciating the genetic vulnerabilities and potential determination of addiction, helps persuade many to accept the necessity for abstinence. Just as in Harry Potter, the wizard did not choose the wand; the wand chose the wizard. So it is for drugs; frequently young people (and sometimes older) experiment with drugs and settle on the one they like best; because genetically that is the drug that best gives he/she the emotions and sensations that exceed normal experience, only to drop lower than before; creating craving and compulsion. Just as the wand chooses the wizard, the drug chooses the person; through a genetic vulnerability.

### Genetics and Diseases:

To help put into perspective the role of genetics in human diseases, we will first look at some genes that directly affect health and behavior. Following are some genetically mediated diseases, including a few that manifest in changes in behavior:

1. A. The BRCA-1 or 2 genes result in up to 87% of these women getting breast cancer  
B. Women with the HGMA2 genetic pattern have greater cancer metastases and death.
2. Diabetes: a child in elementary school did not get his/her diabetes from eating too many candy bars; early childhood onset is genetic (affects behavior)
3. Wilson's disease is due to genetic mutations in the *ATP7B* gene and manifests between age 6 and 20 with psychiatric symptoms including promiscuity, apathy, anxiety, depression, and psychosis. (thus, a genetic abnormality that affects behavior)
4. Huntington's Disease: a genetic disease in which the CAG triplet repeat within the huntingtin gene (manifesting with the huntingtin protein). This causes muscle incoordination and then significant and severe behavior changes including depression and aggressive behavior, with progression to death (thus, another genetic abnormality that affects behavior).
5. Three genes have been found to be associated with Restless Leg Syndrome: MEIS1, BTBD9 and MAP2K5 (Winkelmann et al., 2007). It likely manifests as an iron deficiency causing mis-transmission of dopamine from the substantia nigra. This changes behavior.
6. One hundred and eight specific locations have been identified that are associated with the risk of schizophrenia (Gillman et al., 2014)
7. Bartlett and Ruthsatz (2015) found a relationship between autism versus being a prodigy depending upon the slight variations of SNP on chromosome 1.
8. For some people, a faulty version of the FTO gene causes fat to be stored rather than burned by the human body, causing obesity. (Claussnitzer et al, NEJM, 2015)
9. **Alzheimer's Disease: Both early-onset (tied to patterns in chromosomes 21, 14, and 1) and late-onset forms have a strong impact from genetics with increased risk due to the apolipoprotein E (APOE) gene on chromosome 19. These gene pattern risks increase with environmental influences including exercise, diet, chemicals, or smoking, to which an individual may be exposed, even in the womb.**

## Genetics in addiction:

### Cocaine

10. Alia-Klein et al (2011) showed a significant proportion of men addicted to cocaine had of specific genotype for low-repeat MAOA allele with fewer neurons in the prefrontal cortex.
11. Smith et al., (2014) found that for those with the FMRP and repeated cocaine exposure experienced a dysregulation of a dendritic protein resulted in addiction-related behavior.

### Nicotine

12. Freathy et al., (2009) and Sarginson et al., (2011) found that women with the 15q24 nicotinic acetylcholine receptor gene cluster were more unable to quit smoking during pregnancy.
13. Audrain-McGovern et al., (2011): Gene DRD2 (A1) and depression determined if the first puff by a teen will progress to regular cigarette smoking and addiction.
14. Li-Shiun Chen et al., (2012): The *CHRNA5-CHRNA3-CHRNA4* region predicted nicotine dependence and a later age of smoking cessation.
15. One hundred SNPs (single nucleotide polymorphisms) distinguish those who quit from those who remained addicted to nicotine. It was shown that 26 genes responded better to bupropion while 41 responded better to the nicotine patch (Uhl, 2012). These 5 genes showed higher success of quitting: RARB, CSMD1, PCDH15, A2BP1, and DSCAM. (NIDA, 2009)
16. Men and male youth of African-American descent absorbed 30% more nicotine and longer than whites, as shown by higher cotinine levels (Moolchan, et al, 2006).
17. Ming Li (NIDA, 2008) found that the NRXN1 gene was linked to nicotine dependence in a study of 200 people from 600 families.
18. Boardman, et al (2011) found that of 596 twin pairs, adult identical twins (who share the same genes) were more likely to quit smoking at the same time compared to fraternal twins (who do not have the same gene structure). Among identical twins, 65% of twins quit during a two-year time frame compared to 55% of fraternal twins.
19. Thorgeirsson, et al (2013) found more SNPs related to nicotine use, specifically: the rs10767664-A pattern correlated to starting smoking and the rs2867125-C related to food reward, obesity, and nicotine.

### Alcohol

20. Those with the 118G gene variant had a dopamine response (Ramchandani, et al., 2011) and greater euphoria to alcohol (Heilig, et al 2009).
21. Larsen (2010) found those with DRD4 dopamine D4 gene drank more in social settings.
22. Johnson et al., (2011) Patients having the LL gene variant for 5HT, reported significantly lower numbers of drinks per day and more days abstinent while on ondansetron (Zofran®).
23. Those with the AUTS2 genetic pattern drank an average of 5 percent less alcohol than people with the more frequently found type of the gene. The AUTS2 also has been linked in previous research to autism and attention-deficit hyperactivity disorder (Schumann et al., 2011).
24. Wilhelmsen et al., (2010) found that children inheriting the CYP2E1 gene from their alcoholic parents were less able to hold their alcohol (unclear if it altered the risk for alcoholism).
25. Wetherill et al., (2012) found a genetic predisposition for alcohol blackouts.
26. Seneviratne et al. (2009). The rs1042173 in the 3' untranslated region (3'-UTR) of SLC 6A4 showed a significant association with drinking intensity and an apparent 5HT (serotonin) transporter malfunction with a propensity for severe drinking and alcoholism.
27. Larsen et al., (2011) found that those with DRD4 dopamine D4 gene drank more.
28. Anton et al (2008) found better recovery response from alcoholic with the opioid receptor gene variant (G polymorphism of SNP Rs1799971 in the gene OPRM1) when taking naltrexone.

29. Karpyak et al (2014) found that shorter abstinence, greater depression and alcohol use, was associated with increased intensity of alcohol craving, and days between last drink and the use of a compromise in relation to the genetic pattern *GRIN2B* rs2058878.

#### Cannabis

30. Genetic factors accounted for 60-80% of the cannabis dependence in a study of female twins (Kendler and Prescott, 1998), while Tsuang et al. (1999) found that for male twins genetic factors contributed to the progression from first exposure to regular use by more than five times. True et al (1999) reported that with male twins, genetic factors were responsible for 44% of the variance in risk of developing cannabis dependence.
31. Henquet, et al (2006) found a genetic risk for psychosis from cannabis use. Those with polymorphism in the *catechol-O-methyltransferase* (*COMT* Val<sup>158</sup>Met) gene experienced greater frequency of psychosis, as well as memory and attention impairments.

#### Methamphetamine

32. In deWitt's et al., (2005) seminal research of the 9-repeat genetic pattern variant of DAT1, she showed that those with the genetic pattern using methamphetamine experienced minimal euphoria and also statistically had a history of ADD or ADHD.
33. Ujike et al., (2003) Found a many times higher genetic risk factor for worse prognosis of methamphetamine psychosis.

#### Opioids

34. Genetic markers have now been associated with groups experiencing different levels of pain. Some people are genetically more sensitive to pain while others are less. Those with lower levels of COMT had higher sensitivity to pain (Diatechenko, et al. 2005).
35. Gelernter et al (2006). Although the sites on chromosome 17 were the only ones to show statistically significant linkages. Among African-American participants only, analyses suggested a link between opioid dependence and a site on chromosome 2.
36. Eap et al., (2002) found that 1 in 15 people had the CYP2D6 gene pattern and much higher sensitivity to methadone.

#### Process Addictions:

37. Vietnam Twin Registry Study of 8,169 male twins interviewed found a 12% genetic risk for problem gambling, with a 64% co-occurrence of problem gambling and alcohol dependence accounted for by genes that affect both disorders.

#### PTSD:

38. Auxéméry, Y (2012) A genetic may predispose some to PTSD via the serotonergic system and the subsequent adrenalin reaction. The 5-HTTLPR (promoter region of SLC6A4 which modifies the serotonin transporter) is a genetic region affecting emotional reactions to traumatic events.

**With increasing scientific clarity, “just as in Harry Potter, the wand chooses the wizard, so also the drug chooses the person” through a genetic vulnerability.**

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# Assessing Diminished Control

## Use Different Than **INTENT**

- \_\_\_\_\_ Consumes more than intended or planned, by amount or frequency
- \_\_\_\_\_ Blackouts: more than one or two
- \_\_\_\_\_ **broken promises to friends, family, or self**
- \_\_\_\_\_ efforts to cut down but pattern shows unable to hold with intent
- \_\_\_\_\_ uses outside supports or contrivances to try to control:
- \_\_\_\_\_ riddles: “a hair of the dog that bit you”, “going down with the ship”
- \_\_\_\_\_ “my wife will get on me if I drink/drug more”, “when my partner makes me stop”
- \_\_\_\_\_ uses calculation chart (DUI) and fails to hold to limit, **ever**
- \_\_\_\_\_ **symptomatic drinking: disruption in areas of life (anything unpleasant assoc with use)**
- \_\_\_\_\_ **any attempts to hold limit and fails, ever (going on the wagon; on and off)**
- \_\_\_\_\_ **morning drinking (so advanced, likely physical dependence now)**

How to discern if diminished control or “changed my mind?” **the consequences...**

## **ADVERSE CONSEQUENCES**

- \_\_\_\_\_ Continues to use despite adverse consequences:
  - \_\_\_\_\_ family life
  - \_\_\_\_\_ legal
  - \_\_\_\_\_ physical, health (CDT, GGT, etc.)
  - \_\_\_\_\_ occupational/educational

or

## **ACCOMMODATE DRUG USE**

- \_\_\_\_\_ tries to adjust life to drug use:
  - \_\_\_\_\_ change of friends to those that support use
  - \_\_\_\_\_ change of jobs to consume, (can't pass UA)
  - \_\_\_\_\_ reduced income from job or \$ loss, but not adjust drug consumption down to accommodate reduction
- \_\_\_\_\_ makes abstinence agreement with counselor that is broken

Express in a % of the ratio of total occurrence of drug use relative to the times without, that more drug (frequency and/or amount of use) is consumed than anticipated, intended, planned, or appropriate. Have the drug user estimate the percent of control he/she has: 20%, 90%, 43%. If not 100%, then the person does not have complete control; Vaillant's (1983, 1995) research shows this is the delineating criteria between abuse and addiction.