CHEMOTION AND EMDR

An EMDR treatment protocol based upon a psychodynamic model for chemical dependency†

by

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Introduction
Chemical dependency is a pervasive and rapidly growing problem in western societies. Chemical dependency means obsessive and compulsive use of legal and illegal substances that is not affected by adverse consequences resulting from their consumption and is further characterized by denial of the relationship between consequences and consumption, by tolerance for the chemical, and by symptoms of withdrawal when the substance is unavailable. For the purposes of this paper, legal and illegal substances discussed will include alcohol, tobacco, marijuana, cocaine, methamphetamine, opiates, hallucinogens, and prescription medications.

The two most important, current models for understanding and treatment of chemical dependency are the disease model (American Medical Association, 1973; Jellinek, 1960; Wallace, 1975) and the self-medication model (Flores, 1988; Khantzian, 1982; Krystal, 1982; Wurmser, 1978).

Efficacy of treatment based on the disease model when assessed by one-year abstinence rates varies between 45 and 60% (Miller, 1997). Thus, 40 to 55% of subjects from both inpatient (N = 6508) and outpatient (N = 1572) programs relapsed during the year following treatment. Only 25% were able to maintain 6 months of complete abstinence in the year after treatment. Other authors (McLellan and Weisner, 1996) were satisfied to show that treatment was able to reduce the average number of days that chemical dependents used drugs or alcohol. For example, the pre- and post-treatment (six months) days of alcohol consumption were 14 and 8, respectively (N = 619), and the days of drinking to intoxication were 13 and 5, respectively. Similarly, average days of stimulant use by the same cohort dropped from 9 to 5 six months after treatment.

These data suggest that the treatment paradigms based upon the disease model do not address the true causative factors in chemical dependency.

The present work is motivated by: (1) a search for meaning in the agonizing life stories of addicts and alcoholics and what they actually say about their dependencies; (2) a desire to correct discrepancies and failings of the disease and self-medication models; (3) the goal of explaining the observed diagnostic signs and symptoms of chemical dependency disorder; (4) a further goal of uniting the character disorders and chemical dependency disorder in a unified theoretical framework; (5) a quest for an effective treatment for chemical dependency disorder derivable from the principles of the model used to explain the disorder.

Object Relations, Gestalt Psychology, and Trauma Theory

Object relations is a branch of psychology that describes present behavior in terms of the residues of the individual's relations with people upon whom the person was dependent for satisfaction of primitive needs in infancy and during the early stages of maturation. Object relations theory is based upon observational psychological data collected by Margaret Mahler (Mahler, 1968; Mahler, Pine, & Bergman, 1975) and others and upon physical maturational data amassed by Piaget (Piaget, 1952). Object relations refers to specific intrapsychic structures that are the mental representations, or schemas, of the other, i.e., the object, and of the self.

Object relations theory advances a model of healthy object relations development and describes how various dysfunctions in adulthood derive from deficits in object relations occurring in childhood. Each stage of object relations development lays the foundation for the next stage. Defects occurring in an early stage are thus carried over into succeeding stages and disrupt the course of development in that later stage.
According to object relations theory, autism and psychosis result from failures in attachment occurring in the first four to five months of development. Character disorders—schizoid character, borderline personality disorder, and narcissistic personality disorder—are traceable to failures occurring between five months and 18 to 24 months, while neuroses have their origins in defected object relations from 18 to 36 months.

Fundamental psychological dysfunction characterizes chemical dependency, yet chemical dependency has not been coordinated with specific failures of object relations as have autism, psychosis, the character disorders, and the neuroses. One group of theorists has come "close to suggesting that the deficits in psychological structure are the disease (of chemical dependency)" (Flores & Mahon, 1993). These authors propose that people prone to addiction have not had developmentally appropriate, empathic, nurturing objects and hence have defected capacities to regulate affect and to maintain a differentiated, organized self.

A premise of this paper is that specific substances of abuse reflect specific deficits of object relations, that there exists a correspondence between object relations deficits and chemical dependency. The drug of abuse is viewed as a surrogate object. Preliminary anecdotal clinical data support this premise (Omaha, 1997a; Omaha, 1997b). In these studies, subjects were induced through a Gestalt dialogue technique to divulge the object relations deficits that were hypothesized to drive their chemical dependency. A single-case design investigation is presently in progress aimed at proving or disproving the hypothesis that chemical dependents reenact their object relations deficits through chemical dependency (Omaha, 1997c).

Gestalt psychology developed a dialogue technique (Levitsky & Perls, 1970) that has been used to facilitate a client's communication with (among others) intrapsychic subpersonalities, or ego states. In preliminary studies (Omaha, 1997a; Omaha, 1997b), the dialogue technique—the so called "empty chair" technique—was used to facilitate the chemical dependent in communicating with his chemical of abuse (drug of choice.) The directional hypothesis under test stated that the drug of choice recreated specific object relations deficits. The dialogue technique revealed the deficits the addict was recreating through the use of chemicals.

Trauma theory (Schwartz, Galperin & Masters, 1995; Herman, 1992) describes the effects on the self of events characterized by intense fear, helplessness, loss of control, and threat of annihilation, whether the traumatic events occur in childhood or adulthood. Events so characterized produce a Trauma Syndrome in the victim identified by hyper-arousal, intrusion, and constriction. Trance states are common as well as the capacity to voluntarily restrict and suppress thoughts and alterations in time sense. A further characteristic is trauma reenactment, wherein victims relive their abuse in their thoughts, dreams, and actions. "Most commonly, traumatized people find themselves reenacting some aspect of the trauma scene in disguised form, without realizing what they are doing (Herman, 1992, p.40)" Schwartz et al. describe the existence of incomplete amnesic barriers, allowing less rigidly encapsulated fragments of personality to coexist and to hold contrary views, for example, simultaneously loving and hating parents. Reenactment begins with trauma coding of events, thoughts, and affects leading to an addictive cycle in which "the individual's entire life can become dedicated to repetitive reliving of trauma in disguised form (Schwartz, Galperin & Masters, 1995, p 46)."
**Chemotion: A Psychodynamic Model for Chemical Dependency Disorder**

Chemotion knits the threads of object relations, trauma theory, the Accelerated Information Processing Model (Shapiro, 1995), neurophysiology (see, for example, Cain, 1992; Freeman, 1995), and chemical dependency into a coherent theoretical tapestry. Chemotion finds the etiology of chemical dependency in defected object relations. These defects occur as the result of maternal and paternal failures that constitute traumas and eventuate in undifferentiated negative self-object representations linked to undifferentiated positive self-object representations. These splits are trauma-coded for structure/image, for cognition, and for the traumatizer's affect. They are charged with the unresolved affective experience of the self in the traumatizing situation. The distinction between character disorder and chemical dependency disorder is apparently one of degree (qualitative and quantitative). Trauma in childhood results in a defected object constancy, because the self is organized around a split self-object representation.

At puberty, current neurophysiological research (Freeman, 1995) has revealed that the brain undergoes a "neuronal meltdown" of connections established in early life. This meltdown is part of the process of reorganizing the "isolated brains" of childhood into the "social- and reproductive-capable brains" of adulthood. Neuronal meltdown is experienced as a frightening loss of identity. In health, the emerging adult self reorganizes around the functional, healthy parental introjects, also known as transmuting internalizations. In chemical dependency disorder, there are insufficient healthy parental introjects. In their place is trauma-coded splitting affectively charged by unprocessed emotions. The emerging adult self experiences threats of disorganization and dissolution of the self. Seeking stability, the emerging self turns to parental surrogate substances around which to organize. These substances, illegal and legal chemicals, provide the self with an organizing core and thus a defense against intolerable threats of disorganization and dissolution. Figure 1 presents this process diagrammatically for the situation where both mother and father contribute to the child's emotional trauma.

These substances are also traumaphors in that their use enables a reenactment of the trauma and resulting trauma-coded splitting. "Traumaphor" is analogous to "metaphor," i.e., a figure of speech literally denoting one kind of object or idea used in place of another to suggest a likeness between them. The traumaphor conduces reenactment of the traumatizing events including often the trauma-coded situation/image, cognition, and (traumatizer's) affect. The traumaphor also conduces reenactment of the unmetabolized emotions experienced at the time of the traumatization.

Figure 2 illustrates splitting in an opiate addict. The material presented was evoked using a Gestalt dialogue technique ("empty chair"). In this case, the subject placed the traumaphor Demerol in the chair. The technique demonstrates the degree to which, in this case, the good mother and bad mother are constellated in the traumaphor and how the drug conduces expression, without resolution, of positive and negative thoughts and affects toward the object and toward the self.

Three tenets with their corollaries elucidate the Chemotion Model's principles:

**Tenet I**  A chemical dependent's substance use reenacts emotional wounding experienced in the family of origin.

**Corollary 1**  Chemicals are the means by which the adult expresses the unresolved emotions of childhood.

**Corollary 2**  Each chemical has a psychological meaning specific to the dependent using it.
**Tenet II**  Obsession and compulsion with chemicals arise from the unresolved emotions engendered by childhood emotional trauma.

**Corollary 1**  The severity of trauma correlates positively with the severity of addiction.

**Corollary 2**  Expressing the unresolved emotions of childhood trauma through the agency of a substance does not resolve the trauma.

**Corollary 3**  To remove obsession and compulsion with chemicals, the emotional charge must be removed from the childhood trauma.

**Tenet III**  Denial is the expression in the adult of defected reality testing during development.

**Corollary 1**  The more severely defected the reality testing in childhood, the more severe the denial in the adult chemical dependent.

**Corollary 2**  Defected reality testing includes the forced disavowal or suppression of affects during development.

These tenets clearly distinguish the chemotion model from the self-medication model and the disease model. The self-medication model states that addiction represents "the addict's self-medication of psychological suffering..." (Khantzian, Halliday & McAuliffe, 1990, pg 4). The chemotion model states that chemical dependents use chemicals to reenact their childhood emotional trauma, and rather than medicating their psychological suffering, they compulsively recreate it. The disease model postulates chemical dependency as a disease similar to diabetes or other organic disease. There appear to be genetic differences (lowered enkephalin levels, tetrahydroisoquinoline synthesis, increased monamine oxidase) affecting behavior's physiological substrate, the brain, in alcoholism. There is no indication these differences extend to other dependencies or that the differences do anything but pre-condition sensitivity to the developmental traumata that chemotion asserts causes the disorder.

**EMDR**

Until recently, the mutual self-help support group (Alcoholics Anonymous, 1976), cognitive-behavioral therapy in a treatment center (Miller, Gold & Smith, 1997), and group therapy (Flores & Mahon, 1993) have been the treatments of choice for chemical dependency. In 1987, Eye Movement Desensitization and Reprocessing (EMDR) became available as a method to relatively rapidly desensitize, cognitively restructure, and eliminate pronounced intrusions stemming from past traumatic events (Shapiro, 1995). A recent meta-analysis of 61 treatment outcome trials (Van Etten & Taylor, 1998) suggested that EMDR was as efficacious as and more efficient than behavior therapy in treatment of PTSD. EMDR has been used in one study to treat chemical dependency (Shapiro, Vogelmann-Sine & Sine, 1994). One unpublished protocol (Popky, 1997) uses EMDR to desensitize the "triggers", i.e., the stimuli believed to control substance abuse conceived of as an operantly conditioned response. Another unpublished protocol (Vogelmann-Sine & Sine, 1997) expands the use of EMDR from desensitizing triggers to targeting present day issues and urges.

There are no published papers in which EMDR has been used to treat chemical dependency and in which the chemical dependency was understood in psychodynamic terms.

This paper presents a treatment protocol for chemical dependency employing EMDR. The protocol uses a Gestalt dialogue technique specifically designed to evoke
the object relations deficits that are assumed to drive the chemical dependency. The material thus revealed is used to create targets for EMDR processing. Based upon the Accelerated Information Processing Model (AIPM) that is the foundation of the EMDR methodology (Shapiro, 1995), it is assumed that these targets will constellate present affects, cognitions, and somatic sensations deriving from the primary object relations deficit(s) and that they will connect to the primary deficit and to related memories and past sensations and cognitions through the neural network postulated by the AIPM. EMDR will be used to desensitize these targets and then to install positive cognitions. EMDR apparently facilitates the abreaction that Schwartz et. al (Schwartz, Galperin & Masters, 1995) consider "of primary importance to any successful treatment of dissociated, sexually compulsive clients." Compulsivity is the common element in sexual and chemical addictions.

In terms of the chemotion model, the objectives of treatment employing EMDR are: (1) to desensitize the affects the client has expressed vicariously through chemicals; (2) to facilitate the client's separation from the drugs and the disorder; (3) to remediate the object relations deficits that have driven the disorder; (4) to install resources and remediate defected ego functions so as to return the system to syntonic functioning; and (5) to further facilitate the client in developing a support system in mutual self-help programs. The chemotion-based treatment model assumes that with the childhood trauma that was driving the dependency relieved through EMDR, the client's innate self-healing mechanisms will be available to restore mental and emotional health and that this phase of recovery will be facilitated by the 12 Step process.

The EMDR treatment paradigm described herein is also clearly delineated from EMDR treatment paradigms proposed by Popky (Popky, 1997) and by Vogelmann-Sine (Vogelmann-Sine et. al., 1997). Treatment based on the chemotion model identifies and desensitizes the core issues, that is, the object relations deficits, seen as driving the addiction. The Integrative Addiction Treatment Model (Popky, 1997) and the Modified Standard EMDR Chemical Dependency Treatment Protocol (Vogelmann-Sine et. al., 1997) are directed to secondary targets, the triggers for use, and current issues related to use, respectively. Neither the Integrative Model, nor the Modified Protocol, is founded on a clear hypothesis of the causality of chemical dependency.

Chemotion and EMDR together contain the promise of an efficient, effective treatment paradigm for chemical dependency disorder. An EMDR treatment protocol based on the chemotion model can be integrated into either outpatient or inpatient programs where education in drug-related behaviors, relapse dynamics, communication skills, affect modulation, and family of origin can provide cognitive-behavioral support for clients as their object relations deficits are being reprocessed. This protocol has been applied successfully to alcohol, marijuana, opiate, and nicotine dependencies. It has been used adjunctively in treatment of compulsive overeating. The primary phase of treatment under this protocol will last from six to 20 hours for each client to be followed by a counseling group meeting for 90 minutes, once per week for up to six months. The duration of treatment in most outpatient programs employing educational component together with group counseling averages 84 hours, followed by up to one year of after-care (one 90 minute session per week). The Modified Dynamic Group Therapy protocol (Khantzian, E.J., Halliday, K.S. & McAuliffe, W.E., 1990) developed by the Harvard Cocaine Recovery Project is a six month program of 90 minute meetings twice a week (72 hours of primary treatment).
Treatment Program

Treatment for chemical dependency based on this protocol will consist of these components:

1. Intake interview, testing, assessment—especially of resources
   One 120 minute session

2. Individual session(s), as necessary, employing EMDR to
   install resources
   one to three 60 minute sessions

3. Individual session(s) (minimum of one; maximum of three)
   employing Gestalt dialogue technique to evoke object relations deficits driving the chemical dependency
   One to three 60 minute sessions

4. Individual session(s), as necessary, employing EMDR to
   install resources
   one to three 60 minute sessions

5. Individual sessions (minimum of three; maximum of six)
   employing EMDR to desensitize substance of abuse/object relations targets and install positive cognitions
   Three to six 60 to 90 minute sessions

The duration of Phase One of this treatment program for each client will be from six hours minimum to 20 hours maximum.

6. Counseling group to assist subjects in the following areas:
   (one 90 min. session per week for six months)
   a. integration of the EMDR experience and processing resolution of object relations dysfunction
   b. acquire and practice clean and sober living skills
   c. building support of a cohesive peer group
   d. exploration of affect awareness and expression in a safe environment
   e. practice interpersonal relationships
   f. process the secondary gains and losses attendant
      upon freedom from chemical dependency and the object relations deficits driving it
   g. facilitate transition into 12 Step (NA, AA) groups, getting a sponsor, working the Steps

EMDR Protocol

I. History and Assessment
   A. Life history using an appropriate initial-interview protocol
   B. Object relations history and assessment using a diagnostic tool appropriate for this task (e.g. Horner, 1984, pp 289-296)
   C. Drug history using Addiction Severity Index (ASI) and Substance Abuse Subtle Screening Inventory (Adult SASSI-2; SASSI Institute, 1991)
   D. Assessment
1. Dissociative Disorder, using Dissociative Experiences Scale (Carlson & Putnam, 1992) Presence of Dissociative Disorder NOS or Dissociative Identity Disorder indicates the need for a higher level of patient care possibly requiring hospitalization
2. DSM IV assessment. Presence of psychosis, schizophrenia, major depression, or bipolar disorder indicates the need for a higher level of patient care possibly requiring hospitalization
4. Ability to remain drug free during Phase One of treatment, approximately 30 days. Although structured around a vigorous intervention (chemotion model, object relations deficit acquisition through Gestalt dialogue technique, and EMDR), the proposed treatment program still requires that clients be able to remain drug free for the course of treatment. As conceived herein, this is fundamentally an outpatient treatment program. It could be adapted to an inpatient setting and to the needs of clients who are unable to remain chemical-free for even a day.
4. Family and social support
5. Medical assessment. Severe medical problems indicate the need for a higher level of patient care possibly requiring hospitalization

II. Resource installation. Follow protocol described by Andrew Leeds (Leeds, 1997)

III. Relations to surrogate object(s)

A. Gestalt dialogue technique
1. Use Gestalt "empty chair" to evoke client's relationship with drug(s) of choice. Through dialogue with drug(s) of choice, client will reveal what defected object relations the drug is conducing.
2. Conduct of session
   a. "Place your (name of drug of choice) in the chair. Describe what you see. What does it look like? What size is it? What color is it? Does it have a smell? How heavy is it?"
   b. "What is the drug saying to you right now? What is the drug doing? How is the drug treating you? What does the drug feel for you?"
   c. "What are you feeling right now?"
   d. "In the past, going back from right now as far back as you can remember, who has spoken to you like the drug? Who has treated you like the drug?"
   e. "What do you want to say to the drug? What do you want to do to the drug? What are your feelings for the drug?"
   f. "When you say those words, what is the drug's response? What is it saying or doing now?"

B. Identify targets for EMDR treatment

IV. Resource installation. Follow protocol of Andrew Leeds (Leeds, 1997)

V. Relation to treatment/recovery/sobriety
(Note: if subject is highly motivated to accept recovery this section can be deleted)
A. Gestalt Dialogue Technique. Subject will subsequently be asked to place "treatment" or "recovery" or "sobriety" in the empty chair and to speak to it. Through dialoguing with "recovery," the subject's attitudes toward sobriety will be revealed.
B. Conduct of session
1. "Place recovery (or treatment or sobriety) in the chair. Describe what you see. What does it look like? What size is it? What color is it? Does it have a smell? How heavy is it?"
2. "What is recovery saying to you right now? What is recovery doing? How is recovery treating you? What does recovery feel towards you?"
3. "What are you feeling right now?"
4. "In the past, going back from right now as far back as you can remember, who has spoken to you like recovery? Who has treated you like recovery?"
5. "What do you want to say to recovery? What do you want to do to recovery?"
6. "When you say those words, what is recovery's response? What is it saying or doing now?"

C. Identify targets for treatment and blocks to treatment process
   1. Denial of need for 12 Step support, sponsorship, step work
   2. Resistance to treatment
   3. Secondary losses attendant upon abstinence

VI. Treatment Protocol
   A. Session One
      1. Present Accelerated Information Processing Model
      2. Describe EMDR; present metaphor for accepting uncomfortable material (e.g., videotape, scenery passing by a train window); introduce stop signal
      3. Install 'safe place', if not previously accomplished in resource installation
      4. Discuss prospective targets based upon results of history, assessment, and Gestalt dialogue session.

   B. Session Two: Resistance to Recovery
      (Note: if subject is highly motivated to accept recovery this section can be deleted)
      1. Identify an incident or situation expressing subject's resistance, denial, or blocks to recovery
      2. Identify a picture or snapshot that encompasses the incident
      3. Identify a negative cognition, e.g., "Recovery is too hard"; "I don't want anyone to know I'm an addict."
      4. Identify a positive cognition, e.g., "I can do this one day at a time"; "Recovery is more important than any embarrassment I may have."
      5. Rate the positive cognition for validity (VOC 1-7)
      6. Identify affect
      7. Rate affect plus negative cognition (SUD 0-10) for disturbance
      8. Identify somatic concomitant
      9. Desensitize, working through all associated channels
      10. Install positive cognition
      11. Body scan
      12. Debrief
      13. Closure

   C. Session Three: trauma processing
      1. Identify situation or incident expressing an object relations deficit through dependency on a specific chemical (surrogate object/traumaphor)
         a. Incident can come from Gestalt dialogue session
         b. Incident can come from subject's past
         c. Processing can begin with the traumaphor itself, placed in an "empty chair"
      2. Identify a picture or snapshot that expresses the incident
3. Identify negative cognition, e.g., "I need it"; "I can't quit."
4. Identify positive cognition, e.g., "I am free of need"; "I can quit."
5. Rate positive cognition (VOC 1-7) for validity
6. Identify affect
7. Rate affect plus negative cognition (SUD 0-10) for disturbance
8. Identify somatic concomitant
9. Desensitize, working through all associated channels
10. Install positive cognition
11. Body scan
12. Debrief
13. Closure

D. Subsequent sessions (as necessary)
   1. Repeat protocol targeting additional drugs of abuse (surrogate objects)
   2. Target associated thoughts, feelings, incidents arising in treatment for dependency

E. Post-treatment care
   1. Transfer clients into the Phase Two Counseling Group
   2. Subjects will be facilitated in finding support groups (AA, NA), given meeting schedules for these groups, and encouraged to begin regular meeting attendance.
   3. Where support for other trauma is indicated, e.g., PTSD, incest, molest, rape, subjects will be facilitated and encouraged to begin attendance in appropriate support groups (SIA, male survivors groups, veterans support groups, etc.)
   4. Where appropriate, subjects will be referred for individual therapy.

VII. Counseling Group. The counseling group will meet once per week for 90 minutes with a maximum of ten members per group. The group will provide clients the opportunity to process and integrate the EMDR facilitated resolution of childhood emotional trauma, to acquire clean and sober living skills, to work on self-esteem issues in a safe environment, and to explore affect awareness and expression in a supportive, cohesive peer group setting.

References
   New York: Author.


New York: Jason Aronson.
DYSFUNCTIONAL PRIMAL DYNAMICS: MOTHER AND FATHER WOUNDS

Figure 1

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**SPLITTING: SUBJECT 96B**

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<th>IMAGE</th>
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<th>NEGATIVE UNDIFFERENTIATED SELF-OBJECT FRAGMENT</th>
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**UNMETABOLIZED ARCHAIC AFFECTS OF THE SELF**

- TOWARD THE GOOD MOTHER: ATTRACTION
- TOWARD THE BAD MOTHER: REVULSION

**UNPROCESSED CURRENT AFFECTS OF THE SELF**: GUILT, SHAME, SELF-LOATHING

Figure 2

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