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## The effectiveness of EMDR therapy on clients with addictions

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### **ABSTRACT**

This study was undertaken to determine how effective Eye Movement Desensitization and Reprocessing (EMDR) therapy is in helping clients to lessen or end their cycle of SUDs and behavioral addictions in the long term. Secondly, this study aimed to determine whether or not EMDR therapy increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment. Furthermore, this study looked at whether or not clients need to have abstained from their addictive substance for an extended period of time in order for EMDR therapy to be successful in their addictions treatment. The final question that this study intended to answer was whether or not there is a correlation between proposed key components of EMDR treatment and more positive treatment outcomes for people with addictions.

Data was collected with a questionnaire designed on Survey Monkey. EMDR therapists registered with The EMDR International Association (EMDRIA) were emailed a link to the survey and asked to respond to the survey themselves (if they met the criteria for participation) and to pass the survey onto current or former clients and people they know who have received EMDR therapy. The survey was also passed on directly to people in my professional network of therapists.

The major findings of the research were that EMDR therapy correlates with a significant reduction in research participants' felt degree of addiction to both substances and addictive behaviors. Moreover, these results were maintained over time. Cravings to engage in the said behavioral addiction or SUD most frequently decreased after EMDR therapy sessions. Relapse to alcohol or drug use that research subjects attributed to an EMDR session was rare. In addition, the data revealed that having abstained for periods of time prior to engaging in EMDR therapy does not correlate with more positive treatment outcomes.

# **THE EFFECTIVENESS OF EMDR THERAPY ON CLIENTS WITH ADDICTIONS**

A project based upon an independent investigation,  
submitted in partial fulfillment of the requirements  
for the degree of Master of Social Work.

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2015

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## **CHAPTER 1**

### **Introduction**

Mental health clinicians often speak of addictions work with clients as if it were a separate field, something to be specialized in, but not a necessary skill to have in order to work as a mental health professional. According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2013), a 2012 national survey of drug use and health reported that 22.2 million people in the U.S. aged 12 years or older were substance abusers or dependent. Moreover, 17.5% of people who were diagnosed with mental illness met the criteria for a substance use disorder (SAMHSA, 2013). Researchers have also found that about 50% of people who seek mental health treatment either have issues related to alcoholism in the family or of their own (Corrigan, Mueser, Bond, Drake, & Solomon, 2008 as cited in Abel & O'Brien, 2014). These numbers don't include the wide range of behavioral addictions that undoubtedly impact the lives of millions of people. Both substance and behavioral addictions have a significant impact on health care, economics, work productivity, and social welfare, let alone the toll that they take on individuals and families (Juhnke & Hagedorn, 2006). Clearly, clients with both substance and behavioral addictions show up regularly in the mental health setting, whether clinicians are prepared to help their clients work through these issues or not.

Mental health clinicians trained in traditional models of addiction recovery and relapse prevention don't tend to consider the significant role that unresolved trauma plays in attempts at recovery from addiction (Miller & Guidry, 2001). It's been estimated that 22% to 43% of people with post-traumatic stress disorder (PTSD) have had a substance use disorder (SUD) at some point in their lives, extending as high as 75% for veterans (Jacobsen, Southwick, & Kosten,

2003). According to Zweben and Yeary (2006), EMDR's clinical efficiency and practicality are unmatched when looking at the results of its implementation with a wide range of trauma populations. Because of the well-established comorbidity between SUDs and PTSD, clinicians have been using EMDR with recovering addicts for years, despite the lack of empirical validation with addicted individuals (Marich, 2010). Because EMDR therapy doesn't demand a full narrative of its participants, its implementation could prove to be particularly useful in addressing shame and disclosure, issues that are often inherent in the substance abuse population. Zweben and Yeary (2006) state that "there is more than enough evidence to warrant the study of EMDR in substance abusers in random assignment clinical trials" (p.119). Marich (2009) stated that "A need still exists for expanded, systematized research on using EMDR with chemically dependent and addicted individuals" (p. 99).

Studies have been conducted in recent years that provide some evidence that EMDR therapy is also effective in addressing the treatment of substance use addictions (Marich, 2009; Marich, 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). However, this research is either the product of case studies or done on a relatively small population of participants. The research that was completed as part of this thesis reached out to a much larger population of clients than has ever been studied before in order to gauge how effective clients perceive EMDR to be in helping them to lessen their cycles of SUDs.

Clients with SUDs are typically expected to reach a certain level of sobriety before engaging in individual psychotherapy (Davis, 2006). Clients who are actively engaged in their substance addiction usually have not developed sufficient coping mechanisms to deal with powerful negative emotions, and tend to resort back to substance use when under emotional

stress (Connors & Maisto, 2006; Moos & Moos). Because EMDR therapy requires clients to process trauma and to experience powerful emotions, it is logical that some EMDR therapists would be hesitant to use EMDR therapy with clients who have SUDs; the powerful emotions that are evoked in therapy require coping skills that people with addictions have not developed, which in theory, would lead them to relapse. According to Rougemont-Bucking & Zimmerman (2012), the “refusal of psychotherapy in severely addicted SD [Substance Disorder] patients is based on a plethora of clinical observations dictating that a psychiatric patient has to be stabilized before she or he can enter a psychotherapeutic, typically somewhat confronting setting” (p. 108), even though there is no scientific evidence to support this exclusion of individuals who present with active substance abuse. Relapse is common part of addiction recovery (Joseph, Breslin, & Skinner, 1999). Failing to address the significant role that unresolved trauma plays in an addicted client’s attempt at recovery because of the risk of relapse may be one of the barriers to potentially providing a much more effective means for treating all addictions. This thesis investigates the role that relapse and abstinence of substance use play in overcoming addiction by answering the following questions: (a) Does EMDR therapy increase a client’s likelihood of relapse? (b) Does relapse affect the outcome of therapy? (c) Do clients need to abstain from substance use for an extended period of time for EMDR therapy to be successful?

Researchers currently suggest that compulsive behaviors such as those related to gambling, food, and sex, can also be conceptualized as addictions (Abel & O’Brien, 2014, Karim & Chaudhri, 2012; Khantzian & Albanese, 2008; Smith, 2012). These “addictions” are similar in how they affect the individual neurobiologically, psychologically and socially, to SUDs. Essentially, a person can be considered addicted to a substance or “a process of choice when he or she becomes focused on it to the exclusion of all other things” (Abel & O’Brien, 2014, p. 21).

Much of the recent literature points to the effectiveness of EMDR therapy in reducing behavioral addictions (Bae & Kim, 2012; Cox & Howard, 2007; Miller, 2012). However, like the research on EMDR and SUDs, this research is composed primarily of case studies. This study will examine the perceived effectiveness that EMDR therapy has on reducing behavioral addictions. In addition, it will look at the effectiveness that EMDR therapy has in reducing substance use addictions on a much wider population than has ever been studied before, thereby expanding the knowledge base and the potential to generalize results to the population at large.

The last research question that this study addresses is whether or not there are certain components of EMDR therapy that increase its potential effectiveness for clients who aim to overcome their substance and behavioral addictions. Studies point to the willingness of the client to change, the client's motivation to change, the relationship with the therapist, the feeling of safety in the treatment setting, and the support available to clients outside of the therapeutic session as playing important roles in the outcomes of treatment (Abel & O'Brien, 2014; Marich, 2009; Marich, 2010; Cox & Howard, 2007). In addition, a wide variety of EMDR protocols were used to implement EMDR therapy in both the behavioral addiction and SUD studies that implemented EMDR. This study will examine whether any of the aforementioned characteristics or kinds of EMDR treatment are statistically significant in contributing to more positive outcomes for addicted clients.

The results of this study will further illuminate how mental health clinicians can address the substance use and addictive behaviors of their clients. Given the likelihood that all clinicians will work with clients who struggle with addictions, having the skills to help people work through their addictions is a necessity. This study investigates the effectiveness of EMDR as a

potential therapeutic model for clinicians to follow when working with their clients who have addictions.

## **CHAPTER 2**

### **Literature Review**

The following review of the literature provides empirical evidence to support much of what many clinicians have already recognized in practice: the demonstrated effectiveness of EMDR therapy in helping people to rise above their addictions. Some of the following studies open up the possibility that EMDR could be considered an advantageous therapy early on in addictions treatment, implemented far before clients have obtained sobriety. Each of the following studies reveals evidence that not only affirms the use of EMDR with people who have addictions, but contributes to the knowledge base that reveal the key factors that help clients to be successful in overcoming their addictions while being exposed to EMDR therapy.

This chapter will review the research that has already been conducted in the realm of using EMDR therapy with people who have addictions, and offer insight into what remains to be investigated. This will provide a framework for this author's rationale in investigating the major research questions in this study: (a) how effective EMDR is in helping clients to lessen or end their cycle of SUDs and behavioral addictions in the long term (b) whether or not EMDR therapy increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment, (c) whether or not clients need to have abstained from the addictive substance for an extended period of time in order for EMDR therapy to be successful in addictions treatment and (d) whether or not there is a correlation between proposed key components of EMDR treatment and more positive treatment outcomes.

The first section of this chapter defines and operationalizes the terms that are part of this study. The second section provides an overview of the research that has been done on the effect that EMDR has on behavioral addictions, while the section that follows discusses its effect on SUDs. Each of the studies is reviewed in terms of the results that are relevant to this study and the limitations of the research conducted. Particular attention is paid, in each of the studies, to whether or not the results were maintained over time, discussion of relapse and abstinence, and any salient characteristics of the EMDR therapy used in each study that stand out.

### **Definition and Operationalization of Terms**

**EMDR.** Eye Movement Desensitization and Reprocessing therapy (EMDR) will be defined as a therapeutic intervention that utilizes eye movements or alternate forms of bilateral stimulation, in combination with talk therapy, to accelerate the body's processing of unconscious material. The implementation of EMDR leads to the shifting overly stimulating, revolting, frightening or even shaming unconscious memories, which are shaping current behavior, into a more adaptive state. In this study, EMDR is operationalized as what the research participant reports his or her therapist has used in session regarding treatment, given what information they have about their therapeutic treatment.

**EMDR Therapist.** An EMDR Therapist will be defined as a therapist who is reporting to his or her client that they are using EMDR as a method of treatment. In this study, an EMDR Therapist is operationalized as a therapist that is using EMDR techniques in session.

**Registered EMDR Therapist.** A Registered EMDR Therapist will be defined as a therapist who has completed an instructional course in EMDR that has been approved by the EMDR International Association (EMDRIA), and has been recorded as an EMDR Therapist in the EMDRIA registry.

**Standard EMDR Protocol.** The Standard EMDR Protocol will be defined as the therapeutic intervention that uses a comprehensive therapeutic approach with the following eight phases: history taking and case formulation, client preparation, assessment, desensitization, installation, body scan, closure and reevaluation. The Standard EMDR Protocol is operationalized in this study as that which is described in *Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols, and Procedures* (Shapiro, 2001).

**Substance Use Disorder (SUD).** A Substance Use Disorder will be defined as a disorder in which the use of a substance leads to a clinically significant impairment in health or other distress. In this study, SUDs are operationalized in the survey as the research participant's self-report of engaging with a substance that "has had more control over you than you would have liked. Often the behavior continues despite negative consequences." The specific SUDs focused on in this study are alcohol and drug addiction.

**Behavioral Addiction.** A Behavioral Addiction will be defined as a disorder in which a behavior leads to an impairment in health or distress. In this study behavioral addiction is operationalized in the survey as the research participant's self-report of a behavior which "has had more control over you than you would have liked. Often the behavior continues despite negative consequences." The specific behavioral addictions focused on in this study are compulsive eating, sex addiction, technology addiction, and gambling addiction.

### **EMDR and Behavioral Addictions**

Recent studies have shed new light on how EMDR therapy can be used to help people successfully overcome their behavioral addictions. (Bae & Kim, 2012; Cox & Howard, 2007; Miller, 2012). Miller (2012) investigated the effects of the implementation of EMDR on four clients who were struggling with sex addiction, gambling compulsion, and socialization



compulsion, in addition to two other behavioral compulsions. Each of the participants in the study had at least two behavioral addictions each. Miller implemented the Feeling-State Addiction Protocol (FSAP), a modified version of the EMDR protocol designed by Shapiro (2001). The FSAP focuses on targeting and reprocessing the rush or euphoric sensations or Feeling State (FS) and the addictive behavior that is fixated with that feeling (Miller, 2012). Each of the four participants in Miller's (2012) study completely eliminated their compulsive behaviors. Three of the four participants had previously been in therapy for their addictive behaviors without result. The implementation of EMDR therapy produced remarkable results for the participants; their behavior "had drastically altered toward a more normal behavior" and these changes were noticed by the participants "within days of the FS being processed" (Miller, 2012, p. 167). According to Miller (2012), the treatment outcomes indicate that the behavior of the participants changed because the root cause of their behavior no longer existed. While the outcome of this study strongly suggests that this particular version of EMDR, the FSAP, may be quite useful for the treating of behavioral addiction, there are several limitations to the study. The FSAP was used on the study participants 23 to 30 times over a two week period. The likelihood that clinical therapists and social workers would be able to implement this kind of intensive treatment with their clients is low due to the time-laden nature of this kind of intervention. Furthermore, there was no follow up on the longevity of the cessation of the behavioral compulsion.

The results of the study suggest that behavioral addictions may not require elaborate, long-term interventions for successful treatment when the implementation of EMDR therapy is possible. The FSAP also emerges as an EMDR protocol with great potential for people with addictive behaviors in this study, a protocol with a variety of characteristics that are specific to

its delivery. However, because the results were not gauged for lasting effects after termination of EMDR treatment, its long-term effectiveness remains in question, and is a limitation of this study.

Bae and Kim (2012) did a case study on the effects of the implementation of EMDR on a 13-year-old male client with Internet addiction disorder (IAD) in South Korea. This study used the desensitization of triggers and urge reprocessing (DeTUR) protocol, another modified version of EMDR therapy which was developed by Popky (2005, 2009). DeTUR uses EMDR procedures to process current triggers and urges, and uses positive future templates to promote healing rather than targeting and processing past traumas or disturbing memories in therapy. DeTUR focuses only on the level of urge (LOU) together with body sensation; it does not touch on cognition and emotion, which are considered “basic and essential channels for accessing the problem and as a source of change” in the use of the Standard EMDR Protocol (p. 75). After four sessions during which DeTUR was implemented, the study participant reported that he was able to limit his time on the Internet to an hour per day, and that the amount of time that he thought about or craved playing a game had reduced significantly. The implementation of DeTUR proved successful at eliminating the IAD and maintaining therapeutic gains. At the 1-year follow up, the study participant reported that he had quit playing the on-line game that he had been compulsively playing for over five hours a day at the onset of the study (Bae & Kim, 2012). The success in the treatment of the IAD behavioral addiction could have been influenced by the study participant’s severity of addiction, which was relatively mild on the Internet Addiction Test. Nevertheless, this study provides further evidence that even as few as four sessions of EMDR therapy can lead to significant, enduring results when treating addictive behaviors.

DETUR also emerges as an EMDR protocol with great potential for people with addictive behaviors in this study, a protocol with a variety of characteristics that are specific to its delivery.

Cox and Howard (2007) conducted a case study that observed the effects EMDR therapy on a client who was diagnosed with sex addiction. This client experienced significant progress, effectively treating much of the trauma that was associated with the addiction, and assisting in the prevention of relapse. The authors of the study see a clear connection between the role of trauma and the maintenance of the addictions cycle, which explains why they chose to use the Standard EMDR Protocol in their approach to treating their client who had a sex addiction. According to Cox and Howard (2007), processing the trauma of the client in their case study released the highly addictive attachment and relieved the sexual addiction.

The research participant in this case study made significant gains in processing his trauma, as reflected by his release of irrational beliefs and faulty cognitions that had come into being as a direct result of childhood trauma (Cox & Howard, 2007). While The Standard EMDR Protocol was the primary method of treatment, the research participant was also exposed to a variety of therapeutic techniques which, in combination with the implementation of the Standard EMDR Protocol, moved him forward with his treatment goals. The combination of therapeutic techniques (empty-chair work, letter-writing, psycho-education, 12-step and relapse prevention work) does not allow for the study to attribute the client's successful treatment to EMDR exposure alone. However, these techniques, along with the characteristics of the Standard EMDR Protocol, emerge in this study as potential essential elements that contribute to successful treatment outcomes for clients with addictive behaviors.

The research participant in Cox and Howard's (2007) study also made significant gains in relapse prevention as treatment progressed. Therefore, this study contributes to the research body

that demonstrates that EMDR therapy decreases a client's likelihood of relapse. However, because the client was still in treatment at the time that Cox and Howard (2007) published this study, there is no evidence that points to whether or not the effects of treatment were long-lasting.

### **EMDR and Substance Use Disorders**

Marich (2010) conducted a phenomenological study on ten women who were alumni of an SUD treatment program. Findings revealed that the participants considered the EMDR interventions to be key to the successful outcome of their addictions treatment. EMDR alone or in combination with another aspect of therapy initiated a shift in their perspectives. Nine out of ten participants reported that EMDR interventions were critical in changing their beliefs about themselves (attitudes towards their past, their lives and their recoveries) which directly lead to changes in their behaviors. However, because participants were self-selected for Marich's (2010) study, it is possible that subjects who had a negative experience with EMDR did not choose to participate, a significant limitation to the study.

Participants in Marich's (2010) study agreed that EMDR treatment should not occur in isolation; a combination of factors contributed to their healing, not just EMDR alone. A major theme that emerged from the interviews with participants was "the existence of safety as an essential crucible of the EMDR experience" (Marich, 2010, p. 498). This revelation points to the possibility that safety is an essential element in creating successful treatment outcomes with EMDR therapy.

In order to participate in Marich's (2010) research, subjects had to have had six months pass since their last EMDR therapy session to gauge the lasting effects of EMDR treatment. The continued sobriety of the research subjects six months after treatment had ended lends significant

evidence to the research body on how effective EMDR therapy in the long term. Even so, six months is a relatively short length of time for on-going sobriety, and is not necessarily an accurate gauge of how these women will feel over the span of several years.

Marich (2009) also studied the use of EMDR in a case of a woman who had both an alcohol and sex addiction. Prior to this study, the client had received 12 courses of treatment for alcoholism and addiction over a 12-year period. She had never been able to obtain more than four months of sobriety at a time. The focus of the participant's treatment was to remain abstinent and to address issues that were related to her self-image and past that were impacting her ability to abstain from the addictive behaviors. The research participant was interviewed six months post treatment. She had continued to maintain her sobriety and sexually acting out behaviors. When asked what she attributed her successful treatment to, the study participant cited the combination of EMDR and 12-step work, the relationship and trust that she established with her EMDR therapist, believing her addiction to be a life-and-death matter, being willing to change, and the deepening of her spirituality. She attributed the processing of her trauma, a direct result of EMDR therapy, to be what made it possible for her to self-examine her past and present in a more rational manner; EMDR therapy allowed the client the ability to put her life into perspective, and to examine her distorted view of herself.

Marich's (2009) study provides further support for the implementation of EMDR therapy as a successful means of which to treat individuals with SUDs. It contributes to the research body by demonstrating that the treatment outcomes are enduring (at least six months), and that people who struggle with sobriety can benefit greatly from this treatment. It also introduces potential essential elements of EMDR therapy to be investigated in future research such as the

relationship with the EMDR therapist, her motivation to quit, as well as the elements that go along with implementing the Standard EMDR Protocol.

Results from Abel & O'Brien's (2010) case study lends further evidence that support the use of EMDR with clients who may not have reached sobriety. The study participant was a woman who presented with an addiction to alcohol as well as anxiety and other symptoms of PTSD. Prior to participating in this study, she had been to several therapists for counseling on her substance abuse without success. The study participant responded well to EMDR therapy, reaching and maintaining sobriety, even though she did experience relapse throughout the initial phases of treatment. At the time that this case study was written, the research participant had been sober for over two years. The Standard EMDR Protocol, as well as a variety of modified EMDR protocols, were used throughout her treatment. Similar to the other aforementioned studies, the success of the participant in overcoming her addiction cannot be attributed to EMDR alone. This client was highly motivated to quit her addiction; she willingly attended AA meetings and obtained an AA sponsor on her own. Nevertheless, the client attributes her ability to finally stop using all together to EMDR therapy. She states: "After a few (EMDR trauma protocol) sessions I noticed a huge difference. It was like a door opened in the dark room I had locked myself into. For so long I had been unable to get out, afraid of the feelings that would inevitably find me and overwhelm me, driving me back" (Abel & O'Brien, 2010, p. 55).

The Able and O'Brien (2010) study contributes to the research body on EMDR and addictions by providing evidence that shows that people can significantly benefit from treatment before having sustained a period of sobriety. In addition, this study speaks to the question as to whether or not relapse is an occurrence that is a detriment to treatment outcomes; this particular client reached and maintained sobriety even though she experienced relapse throughout the

initial phases of treatment. The study also illuminates potential key elements of EMDR therapy to be investigated in future research such as motivation, and community support (this client attended AA meetings regularly). The authors of the study discussed how it is difficult to decide which of the EMDR protocols to use, and when to use them, and advocated for further research on this topic. One primary limitation of this study is that it is unknown how this person's treatment outcome will stand up over time. Moreover, the fact that this is a study of one person limits how much the results of the case study can be generalized to the larger population.

Rougemont-Bucking & Zimmerman (2012) published a case report that discussed the implementation of the Standard EMDR Protocol with two clients who were actively using illicit drugs. Both of the participants required an extended preparation and stabilization phase of several months in which "safe place" resourcing, Constant Installation of Present Orientation and Safety (CIPOS) and the "wedging technique" were practiced. Both participants experienced a reduction in of their avoidance tendencies. In experiencing the EMDR Standard Protocol therapy, both clients found the processing of their traumas to be difficult, and it was not uncommon for them to request that the process stop while in therapy. One of the participants managed to process one event successfully, during which time he experienced a decrease in drug consumption. The other participant was able to engage in processing his trauma over five EMDR sessions, although only two of them were completed. Following this processing, this participant's drug consumption remained low for the rest of therapy. The researchers reported that one EMDR session did lead to drug consumption for one of the participants; however, as Rougemont-Bucking & Zimmerman (2012) discuss, the relapse did not present significant repercussions for the client as it was a well-managed coping strategy that did not otherwise destabilize him. The authors contend that "as long as this clinical manifestation remains well

integrated in the patient's habitual coping mechanisms, and as long as it is not associated with exposure to extraordinary health risks," relapse should not be interpreted as either a complication or a failure. Accordingly, relapse should not justify the discontinuation of EMDR therapy for clients with SUDs.

The results of the Rougemont-Bucking & Zimmerman (2012) study add to research body that shows that the implementation EMDR therapy can lead to favorable outcomes for clients who have not yet obtained sobriety. Furthermore, their research provides evidence supporting the idea that relapse doesn't negatively affect the outcome of treatment in people who use the addiction as a habitual coping mechanism or who are "functional" people with addictions. Lastly, support emerged as a potential key element of EMDR therapy in this study. Clients were provided with the extra support of a case manager throughout treatment, potentially impacting treatment outcomes.

The primary limitations of the Rougemont-Bucking & Zimmerman's (2012) case study are similar to the limitation of the aforementioned studies. There was no follow up, so it is unknown whether the study participants maintained the gains that they reached over treatment. However, it is worth noting that one of the research participants resumed his therapy after a break of 13 months. While his score was elevated upon his return, his craving and drug use rapidly stabilized after reinitiating EMDR therapy. This creates a question around the longevity of EMDR therapy outcomes. Again, a further limitation to this case study is that the results are not generalizable to the greater population due to small number of participants.

Hase, Schallmayer, and Sack (2008) provide one of the few studies that used a randomized sample with a relatively large number of participants (34) to gauge the effectiveness of EMDR therapy on clients with addictions. This study evaluated the impact of EMDR therapy



on SUDs in contrast to Treatment as Usual (TAU). The participants in the study were seeking detoxification at a German regional psychiatric hospital for their alcohol addiction. The EMDR protocol that was followed was the German version of the EMDR Institute Manual (Shapiro & Hofmann, 1994 as cited in Hase, Schallmayer & Sack, 2008). This particular protocol focuses on the addiction memory (AM) which are memories of relapse or intense craving, and the level of urge (LOU), similar to Popky's (2005) DeTUR model of EMDR. The results of the study revealed that research participants in the TAU plus EMDR therapy group experienced a significant decrease in cravings for alcohol post treatment and at the one month follow-up, in direct contrast to the TAU research participants who did not receive EMDR, who experienced no decrease in craving. In addition, fewer of the TAU plus EMDR therapy group experienced a relapse. This data adds to the research body by providing even more evidence that supports the use of EMDR therapy on people who have addictions. Rather than causing clients to relapse, evidence continues to amass that demonstrates the opposite: EMDR therapy reduces cravings for SUDs and the relapse that is associated them.

The only salient characteristic that emerged from this study was the kind of EMDR therapy that was used, one which focuses on addiction memory (AM). The results of this study lend credence to investigating the key elements of AM therapy in order to distinguish what might have contributed to such positive treatment outcomes for clients.

While Hase, Schallmayer, & Sack's (2008) study provides significant support for the addition of EMDR to addictions treatment, it also has limitations. Researchers only implemented two short sessions of EMDR therapy as the EMDR intervention, whereas most EMDR protocols provide for a more comprehensive, time-intensive treatment that extends over a longer period of time. Bias is another potential limitation of this study, as treatment was applied

by the same person doing the evaluation. However, the fact that the research was conducted in a psychiatric inpatient setting, in which the only modification to TAU was two additional sessions of EMDR therapy, makes it a relatively controlled study. The final limitation of this study has to do with the follow-up; only six of the 34 original research participants reported back for follow-up at one month. Without data on the longevity of the research, it is unclear whether the effects of the treatment were long-lasting.

### **Summary**

A comprehensive review of the literature demonstrates that EMDR is potentially an effective treatment for clients who have both behavioral addictions (Bae & Kim, 2012; Cox & Howard, 2007; Miller, 2012) and SUDs (Marich, 2009; Marich 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). Nevertheless, a few gaps in the research body remain, leaving the efficacy of EMDR in relation to addictions still in question. All but one of the studies done regarding the efficacy of EMDR and addictions (Hase, Schallmayer, & Sack, 2008) have been case studies; they have far too few participants to generalize the positive results to the population at large. Furthermore, most of the studies do not measure whether or not the effects of treatment are long-lasting. Bae & Kim's (2012) study is the exception to this; the research participant in their study had completely stopped his technology addiction at the one year follow-up. Again, because the study was only on one person, the results cannot be generalized. Marich's (2009 & 2010) studies found treatment results to be consistent six months after termination, but this data tells us little about what these same people will be experiencing one or more years from now. Hase, Schallmayer, & Sack (2008) did a follow-up at six months that also found that EMDR plus Treatment as Usual groups (TAU) continued to relapse less than the TAU group. Again, it is difficult to gauge whether or

not treatment outcomes would be maintained over longer periods of time, even with some supporting data from this follow-up.

Beyond EMDR's general efficacy with people who have addictions, there has been much disagreement in the therapeutic world around whether or not EMDR should be used as an intervention in the therapeutic setting when a client is actively using an addictive substance (Rougemont-Bucking & Zimmerman, 2012). This review of the literature has shown that clients with active SUDs have been able to benefit greatly from EMDR therapy (Marich, 2009; Marich 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). A few of these studies also looked at how EMDR impacted research participants' likelihood of relapse over the time-span of treatment. Relapse was a common occurrence for most participants in the studies, but it did not prevent subjects from having positive treatment outcomes (Marich, 2009; Marich 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). Moreover, subjects were shown to relapse less than people who had not been exposed to EMDR therapy (Hase, Schallmayer, & Sack, 2008). Again, while the current research consistently shows that EMDR is effective for people who have SUDs, the small number of subjects involved in the studies does not allow one to generalize that EMDR may be effective for all people who struggle with SUDs. Essentially, further research needs to be done to reduce the confusion around if and when it is OK to use EMDR with clients who are currently using SUDs through the expansion of the research sample. The primary gap in the literature is the sheer lack of people to support what seem to be consistently positive results of EMDR therapy for people with addictions.

Most of the studies cited in the literature review above referred to a variety of elements that accompanied EMDR treatment which could have contributed to positive outcomes.

Common themes that arose were how the motivation to quit the addiction, the relationship with the therapist, the feeling of safety in the treatment setting, and the support available to clients outside of the therapeutic session impacted the client treatment outcome. Further research is needed to determine how much impact each of these factors has on treatment outcomes.

All of the studies on EMDR and addictions treatment in this review of the literature vary in the kind of EMDR protocol that was used on research participants. Therefore, there continues to be a need for research around which particular EMDR therapies are the most effective for clients with SUDs and addictive behaviors, whether it be the Standard EMDR Protocol, or a modified version of it such as DeTUR, CRAVEX, or the Feeling-State Addiction Protocol. No studies have been done to date that compare the treatment outcomes among variations of EMDR treatment among clients who have addictions.

This study compiles the data that was gathered from an extensive survey, completed by individuals who were exposed to EMDR therapy during a period in which they had a behavioral addiction, SUDs, or both. The goal of this research is to fill the gaps in the literature, primarily by reaching out to a much wider sample of research participants. The study investigates how effective EMDR therapy is in the long term. It also looks at how relapse manifested over the course of EMDR therapy, and how it impacted the outcomes of treatment, if at all. In addition, this research gathers evidence that will help to determine whether there is a correlation between the presence of proposed “key” elements of EMDR treatment (such as the motivation to quit the addiction, the relationship with the therapist, the feeling of safety in the treatment setting, and the support available to clients outside of the therapeutic session) and successful outcomes for participants. The study will also try to determine what kind EMDR therapy was used in treatment, and how that particular treatment correlates to participant outcomes.

## **CHAPTER 3**

### **Methodology**

The purpose of this study is to explore the effect that EMDR has on clients who have had SUDs and behavioral addictions. A comprehensive review of the literature demonstrates that EMDR is a potentially effective treatment for clients who have both behavioral addictions and SUDs. While the majority of studies to date on this topic have been case studies, this study reaches out to a much larger population of clients than has ever been studied before in order to illuminate their experiences with EMDR. There are four major research questions in this study: (a) how effective EMDR is in helping clients to lessen or end their cycle of SUDs and behavioral addictions in the long term (b) whether or not EMDR therapy increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment, (c) whether or not clients need to have abstained from the addictive substance for an extended period of time in order for EMDR therapy to be successful in addictions treatment and (d) whether or not there is a correlation between proposed key components of EMDR treatment and more positive treatment outcomes. This study uses a quantitative survey design; data was collected with a questionnaire designed on Survey Monkey. The survey design best fit the aim of the study, which was to gather data on a large scale on how clients with SUDs and behavioral addictions have been impacted by EMDR therapy.

The purpose of this chapter is to describe the methods used to achieve the aim of the study. Included are: the researcher's theoretical framework, the research purpose and design,

and the sample design. Data collection methods, measures and ethical issues will also be addressed in this chapter.

### **Theoretical Framework**

Psychodynamic theory is the primary theoretical framework that is used to guide this study. Berzoff (2011) describes this theory as having to do with both the inner and outer energies that “motivate, dominate, and control people’s behavior” (p. 5). Past experiences, and present reality are the bases from which these energies emerge; human behavior is a product of these energies, or psychological forces. Mental and emotional development evolve from these internal and external energies (Berzoff, 2011). Essentially, psychodynamic theory proposes that one’s conscious feelings, thoughts, behaviors, memories, conflicts, self-perceptions and ways of relating to people, are a product of unconscious mental activity that are based on one’s experiences (Cabaniss, 2011). These experiences and memories are kept out of a person’s conscious because of their threatening nature, either because they are overly stimulating, revolting, frightening or even shame inducing. Even so, the energetic charge that is associated with these experiences constantly pushes to reach one’s awareness, influencing present day thoughts, behaviors and emotions (Cabaniss, 2011). The theory behind EMDR is that it addresses these unconscious memories, processing and shifting them into a more adaptive state, which in turn, influences current behavior.

The adaptive information processing (AIP) model, developed by Shapiro (2001) to explain how EMDR works, falls directly into the parameters of psychodynamic theory. The AIP model conceives of maladaptive behavior and/or psychopathology as the result of the incomplete processing of disturbing experiences or memories that manifests in the form of unconscious mental activity. The disturbing material is the past experience or present reality from which the

energies that form human behavior and mental and emotional development, emerge (Berzoff, 2011). Both the SUDs and addictive behaviors being researched in this study potentially originate from incomplete processing of disturbing experiences or memories, resulting in impairment in health or other distress. In EMDR, bilateral stimulation, in the form of eye movements, audio stimulation, or tactile movement, in conjunction with therapeutic dialog, are the instruments that initiate the adaptive resolution of unprocessed, unconscious disturbing material or experiences (Shapiro, 2001). According to this theoretical model, SUDs and addictive behaviors can be addressed and remedied with the application of EMDR therapy, which processes the material that is causing the resulting symptomology of addiction.

### **Research Purpose and Design**

Many small-scale studies have been done on the effect that EMDR has on people with SUDs and behavioral addictions, but none to date have involved more than Hase, Schallmayer, and Sack's (2008) study which had 34 research participants. The small numbers involved studying EMDR and addictions limit the ability to generalize the results to the greater population of people who have SUDs or behavior addictions. Moreover, how effective EMDR is in the long term, in helping clients to lessen or end their cycle of SUDs and behavioral addictions has not been sufficiently researched. It also remains unclear as to whether or not EMDR treatment increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment. Furthermore, there is a lack of information around whether or not there is a correlation between proposed key components of EMDR treatment and positive or negative treatment outcomes. The corresponding research questions in this study ask: (a) How effective is EMDR in the long term in helping clients to lessen or end their cycle of SUDs and behavioral addictions? (b) Does EMDR therapy increase the likelihood of relapse to the SUD or addictive

behavior? (c) Does client relapse, as a product of exposure to EMDR therapy, have any correlation to negative treatment outcomes? (d) Do clients need to have been abstinent from the SUD for an extended period of time before engaging in EMDR therapy in order for treatment to be successful? (e) Is there a correlation between proposed key components of EMDR treatment and more positive treatment outcomes for clients who have SUDs or behavioral addictions? In order to be able to generalize about client experience, I chose to use a survey as the data collection method. According to Engel and Schutt (2013), “Survey research is appealing when sample generalizability is a central research goal. In fact, survey research is often the only means available for developing a representative picture of the attitudes and characteristics of a large population” (p. 229). The purpose of this study is to shed light on whether or not the information gathered from smaller case studies, phenomenological studies and quantitative studies regarding the effectiveness of EMDR therapy on people with SUDs and behavioral addictions, can be transferred to the general client population.

### **Sample**

All participants recruited for this research study were 18 years or older. Each participant self-identified as having received EMDR therapy and having struggled with an addictive behavior. Participants had to be sure that they had received EMDR therapy, or they were eliminated from the study.

In order to access the desired population for the study, a “snowball” sample method was used (Engel & Schutt, 2013). EMDR therapists registered with The EMDR International Association (EMDRIA) were emailed a link to the survey and asked to respond to the survey themselves (if they met the criteria for participation) and to pass the survey onto current or former clients and people they know who have received EMDR therapy. The survey was also



passed on directly to people in my professional network of therapists, who either took the survey themselves, or passed it onto other people who were likely to have received EMDR therapy. A protocol change request was sent to the Human Subjects Review board after data collection had begun in order to access more survey respondents. It turned out that many EMDR therapists did not have access to their clients' email addresses, and therefore could not forward them the survey to take with ease; therapists requested that I provide them with a flier with a link to the survey to distribute to their clients. After creating the flier with the survey link, I decided to request permission to post the survey on my Smith College for Social Work Facebook page in order to reach an even wider web of survey respondents. Because participants in the study were accessed through both EMDRIA, and through a professional network, it is likely that most of the study participants had actually been treated by a Registered EMDR Therapist.

### **Data Collection Methods**

The proposed study was designed as a survey that was implemented via an on-line system called Survey Monkey under which anonymity and confidentiality is protected. Settings were chosen to assure that Internet Protocol (IP) addresses were not collected as identifying information.

The survey was designed with the intention of insuring that the question response set was exhaustive and mutually exclusive, having an equal number of positive and negative answers to each question. The careful definition of the concepts in the survey helped to confirm the face validity of the questions, and avoid confusion for study participants. For example, addiction, a term that can be conceptualized in a variety of ways, was defined as engaging with a substance that "has had more control over you than you would have liked. Often the behavior continues despite negative consequences." Survey questions were also designed to control for several

variables. Age, race and gender were controlled for through basic demographic questions. A number of questions were also used to control for variables that potentially impact treatment results: the perceived level of experience of the therapist, the comfort level of the client with the therapist and the therapeutic setting, the number of EMDR sessions performed, the social supports that the client had access to at the time of treatment, the kind of EMDR treatment implemented, and the extent to which the research participant was addicted to the behavior or substance (as determined by number of years addicted and the number of times that the person tried to lessen or quit the addictive behavior).

### **Measurement**

Each question on the survey was designed to elicit answers to the primary research questions while controlling for variables that could potentially influence the outcomes of treatment. Initially, a set of questions was designed to control for variables that could hypothetically impact treatment results: the perceived level of experience of the therapist, the comfort level of the client with the therapist and the therapeutic setting, the social supports that the client had access to at the time of treatment, the kind of EMDR treatment implemented, the motivation that the client had to overcome his or her addiction, the number of EMDR sessions performed and the extent to which the research participant was addicted to the behavior or substance (as determined by number of years addicted and the number of times that the person tried to lessen or quit the addictive behavior). Most of the questions in this set were also used to measure the correlation between successful outcomes of treatment and proposed key components of EMDR treatment, a principal research question in this study. The following explains the rationale as to why these elements were considered key components to research further.

The theme of safety emerged as in Marich's (2010) phenomenological study of 10 women as an important element that contributes to successful treatment with EMDR. A similar theme arose in Marich's (2009) case study in which the client's relationship of trust with the therapist was cited as an important attribute to her successful treatment. With this in mind, questions were created with the intention of gauging the level of comfort that the client felt both with the therapist and in the therapeutic setting in order to decipher whether safety is as important of a factor to successful EMDR treatment as Marich (2009, 2010) observed.

A comprehensive review of the EMDR and addictions literature also revealed evidence that social supports play an important role in positive treatment outcomes (Cox & Howard, 2007; Marich, 2009; Abel & O'Brien, 2010). Successful outcomes in both Cox & Howard's (2007) study and Marich's (2009) study involved 12-step work. A client in Abel & O'Brien's (2010) case study also attended AA meetings and had a sponsor of her own. Because the themes of social support appeared to play a significant role for the clients in the studies above, questions in this set were created to gauge the correlation between social supports and positive treatment outcomes.

Yet another theme that emerged in the literature review as a potential key component of EMDR therapy that leads to positive treatment outcomes for clients with addictions, is how willing or motivated a client was to quit his or her addiction (Marich, 2009; Abel & O'Brien, 2010). Again, questions were created to measure the potential influence that motivation could have on the outcome of treatment.

The final potential key component to be researched through the survey is whether the type of EMDR therapy being administered has any impact on treatment outcomes for people with SUDs and behavioral addictions. In the review of the studies that had used EMDR to treat

clients with SUDs and behavioral addictions, a wide range of EMDR protocols were used. The Standard EMDR Protocol was used by Cox and Howard (2007), Marich (2009, 2010), and Rougemont-Bucking & Zimmerman (2012). The Feeling-State Addiction Protocol (FSAP) was used by Miller (2012), while Bae and Kim (2012) used the Desensitization of Triggers and Urges Reprocessing (DeTUR); Hase, Schallmayer, & Sack (2008) used an EMDR protocol that was similar to the DeTUR model of EMDR. Lastly, a combination of the Standard EMDR Protocol and modified protocols were used by Able & O'Brien (2010). While it would be impossible for the client to know which protocol their therapist had used, there are characteristic traits of each protocol that a client could potentially recognize. Therefore, a set questions were designed with the intention of ascertaining which EMDR protocols were likely used in session. These questions asked survey participants what their EMDR therapists tended to focus on in session, ranging from processing negative beliefs about themselves to having the addiction being the focus of the therapy.

In order to address the research questions that asks how effective EMDR treatment is in the long-term in helping clients to end the cycle of SUDs and behavioral addictions, another set of questions was created. This set intended to gauge how the client currently perceives his or her degree of addiction to the SUD or addictive behavior in relation to how addicted they perceive his or her addiction to be before initiating EMDR therapy. Questions in this set also aimed to determine how the addiction was affected over the course of therapy, and how the client perceives EMDR therapy affected his or her level of addiction over all. Most importantly, questions in this set aimed to determine how much time has passed since therapy was received in order to gauge how lasting the effects of EMDR therapy are over time.

A final set of questions was created with the intent of answering the research questions regarding relapse. The intent of this question set was to research the validity of the concept that Rougemont-Bucking & Zimmerman (2012) put into question: that “a psychiatric patient has to be stabilized before she or he can enter a psychotherapeutic, typically somewhat confronting setting” (p.108). These survey questions aimed to measure whether or not survey participants had experienced relapse as a direct result of receiving EMDR therapy, in addition to whether or not said relapses impact the outcome of treatment. The goal in creating these questions was to get a feel for whether therapists’ fears around client relapse is justified; Should relapse impact treatment outcomes negatively, it would be rational for a therapist to exercise extreme caution in treatment, avoiding any potential for client relapse. However, should the opposite be true, that relapse does not impact treatment outcomes negatively, the thought is that therapists would be able to implement EMDR therapy with fewer limitations. A final question was added to this set in order to determine whether or not clients need to be abstinent from the SUD or behavioral addiction for an extended period of time for EMDR therapy to be successful. A finalized version of this semi-standardized interview instrument appears in the Appendix G.

### **Ethical Concerns**

There were few ethical concerns in this study given that a survey was the method of data collection, and it did not ask in-depth personal questions about behaviors. In order to provide safety for the research participants, SAMHSA’s National Helpline was provided at the start of the survey as a number to call should they become uncomfortable or distressed by the survey. Standard ethical protocols were implemented as part of this study; the proposal for research was submitted for IRB and approved of by the Smith College for Social Work Human Subjects Review committee. Participants were also provided with a detailed informed consent, advising

them about the nature and content of the survey before they were to answer questions about SUDs and addictive behaviors.

### **Summary**

In this chapter, the methods and the procedures implemented to collect the data in this study have been explained in detail. In addition, an explanation of this author's theoretical framework was presented, based on the combination of psychodynamic theory and Francine Shapiro's (2001) AIP model which describes how traumatic memories are processed. The use of a survey as the primary measurement tool was justified through a discussion of the study's intent to illuminate whether or not the results of smaller studies can be generalized to the greater population of people with SUDs and addictive behaviors. This chapter also described the reasoning behind the proposed sampling design and the creation of the measurement tool. The chapter concluded with a description of ethical issues that could have played a role in its execution.

## **CHAPTER 4**

### **Findings**

In this chapter, the results of the data analysis are presented. The data was collected through Survey Monkey, and processed in response to the problems posed in the first chapter of this thesis. A few fundamental goals drove the collection of the data and the subsequent data analysis: (a) to determine how effective EMDR is in helping clients to lessen or end their cycle of SUDs and behavioral addictions in the long term (b) to determine whether or not EMDR therapy increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment, (c) to determine whether or not clients need to have abstained from the addictive substance for an extended period of time in order for EMDR therapy to be successful in addictions treatment and (d) to determine whether or not there is a correlation between proposed key components of EMDR treatment and more positive treatment outcomes. These objectives were achieved. The major findings were that overall, EMDR therapy was shown to reduce the degree of addiction to both substances and addictive behaviors. Moreover, these results were maintained over time. Cravings to engage in the said behavioral addiction or SUD most frequently decreased after EMDR sessions. Relapse to alcohol or drug use that research subjects attributed to an EMDR session was also rare. In addition, the data revealed that abstinence of the addiction prior to treatment does not appear to be necessary in order for clients to have positive treatment outcomes. .

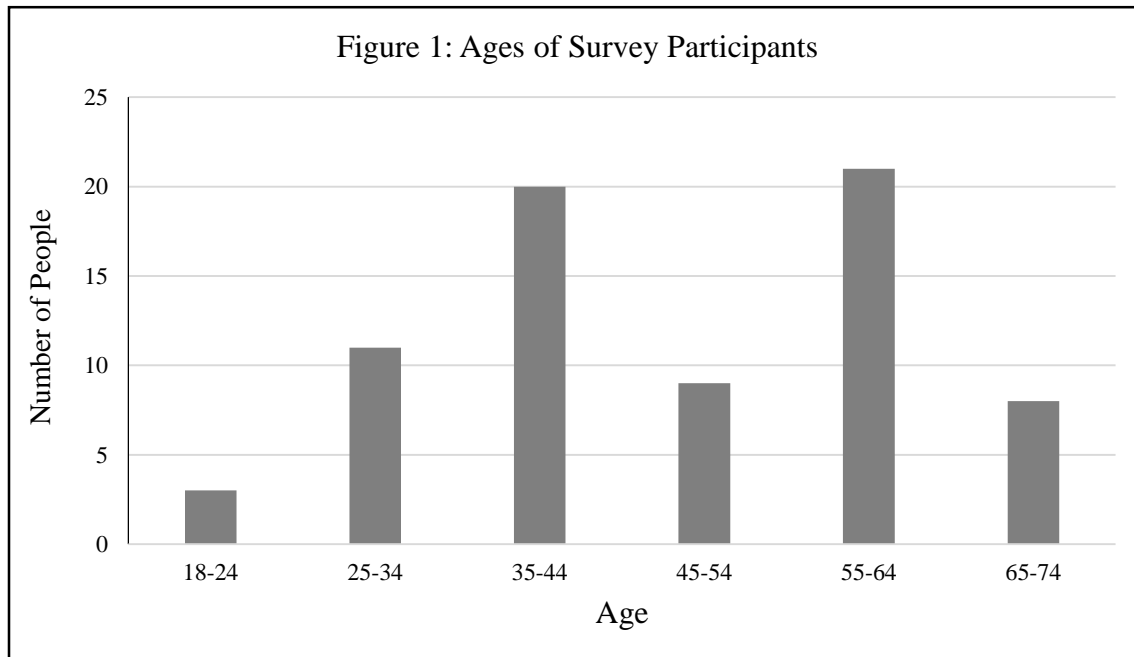
This chapter starts with a description of the demographics of the subjects who were involved in this study. The sections that follow are divided by each kind of addiction: alcohol, drug, compulsive food consumption, sex, technology, gambling and "other." Each section discusses in detail the findings that are specific to the named addiction. These sections begin

with describing the level of addiction that respondents had to that particular addiction, referencing the length of time survey respondents were addicted and how many times these individuals had tried to address their addictions before receiving EMDR therapy. Whether the addiction was the focus of therapy is also mentioned at this point. Next, the amount of time that the participants had refrained from their addiction before therapy is referenced in order to gauge how refraining from the addiction correlates with the effectiveness of treatment. Finally, the effect that EMDR sessions have on addiction cravings and relapse is noted for each addiction type. The final section looks at the how important certain components of EMDR therapy are in obtaining positive treatment outcomes, some of which have been mentioned in the literature: the comfort level that clients feel in the therapeutic setting, the trust that the client has for the EMDR therapist, the motivation that the client has to quit the addiction, the perceived knowledge level of the therapist, the number of EMDR sessions administered, and the number of social and family supports that clients have during treatment. The findings presented in this chapter demonstrate the potential for merging theory and practice.



## Demographics

From Figure 1, it is apparent that the ages of the respondents in this study were widespread. Of the 72 participants, approximately four percent (4%) fell in the age range of 18 to 24 - the category with the fewest people. Eleven percent of the respondents fell into the age range of 65 to 74, a percentage close to the 25 to 34 age range (15%), and the 45 to 54 age range (13%). The largest numbers of respondents fell into the age ranges of 35 to 44 (28%) and 55 to 64 (29%). Of these 72 subjects, 66 people labeled themselves as White/Caucasian, four as multiple ethnicity, and one person as Hispanic American. Participants were given the options “female,” “male,” “not sure” and “other (please specify)” to self-identify. The survey participants were primarily female in gender with 74% of them reporting as female, and 26% reporting as male; all of the 72 respondents answered that they had both experienced a substance or behavioral addiction in addition to having received EMDR therapy.



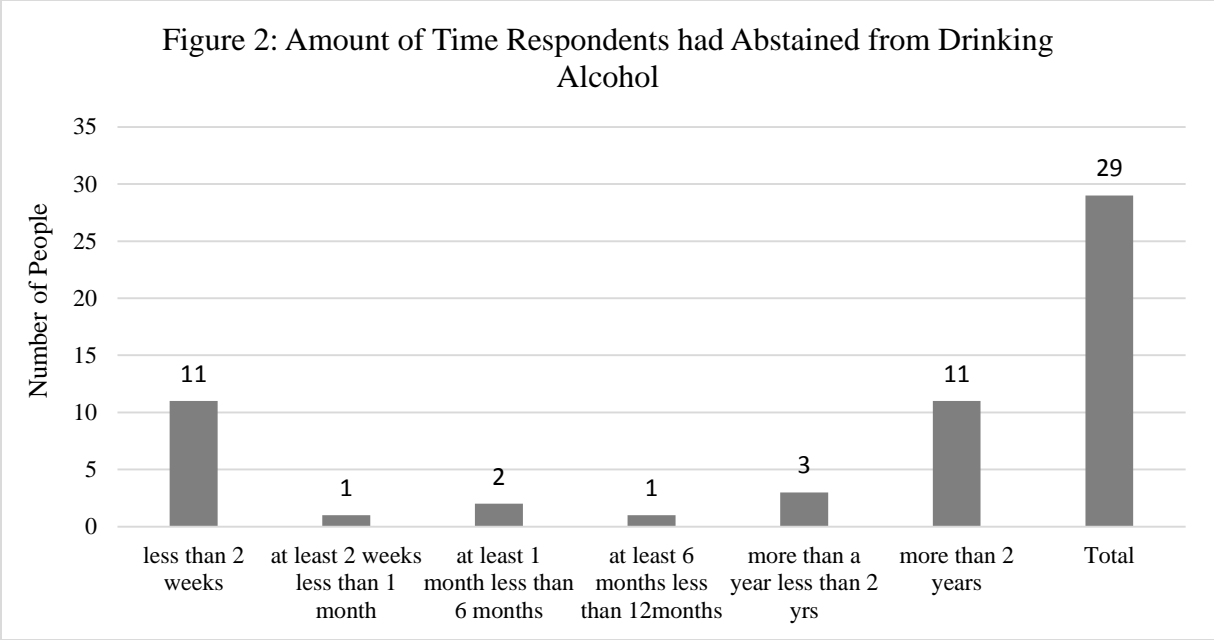
## **Alcohol Addiction**

Thirty-two survey respondents reported that they had experienced being addicted to alcohol. Addiction in the survey was defined as “wanting to use less or to quit using, but not being capable of achieving this goal.” The mean period of time that individuals reported feeling addicted to alcohol before starting EMDR therapy was 4.5 years. The mean amount of times people had tried to quit drinking was approximately 3 years. Both of these frequencies show that this group of people had a significant history of addiction. Only four of the respondents reported that their addiction had been the focus of the EMDR treatment.

## **Sobriety**

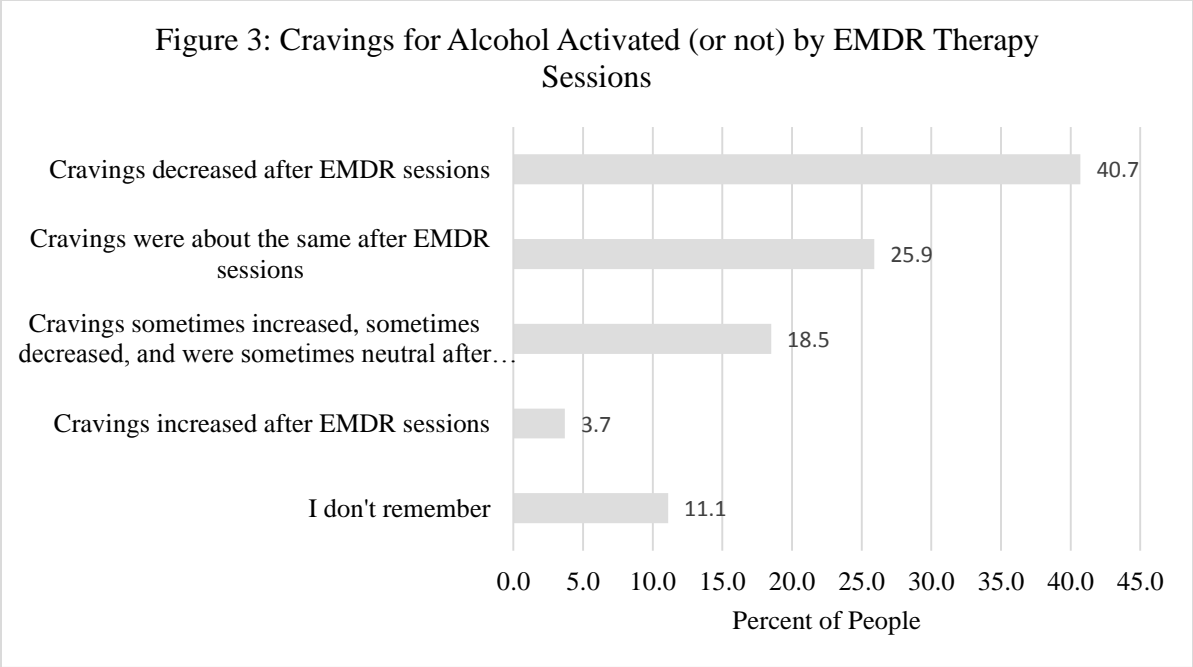
From Figure 2, we can see that approximately half of the people in the study had engaged in drinking during the six months prior to receiving EMDR therapy, demonstrating that these people had not reached a year of sobriety at the time of treatment. Approximately that same number of people had been sober for a year or longer. Eleven participants in the study had been sober for two years or more prior to receiving EMDR therapy. It is possible that these people were of the nine people who reported an addiction level of 0, 1 or 2 at the start of therapy, and did not consider themselves to be addicted when they started treatment; this data could potentially skew the results of the study.

A Spearman rho correlation was run to see if there was a relationship between the length of time since a person had drunk alcohol and their treatment gains. No significant correlations were found, providing evidence that whether or not one has abstained from alcohol when beginning EMDR therapy has no impact on treatment outcomes.



**Relapse**

Figure 3 presents what survey participants answered regarding how EMDR therapy affected their cravings. Among the respondents, cravings after EMDR therapy sessions decreased most frequently or 40.7% of the time. This was followed in declining order by cravings being about the same before and after EMDR sessions (25.9%), cravings sometimes increasing and sometimes decreasing (18.5%), and cravings increasing after EMDR therapy (3.7%). Eleven point one percent of participants couldn't remember how their cravings were affected. Therefore, 66.6% of participants did not feel more inclined to relapse after receiving EMDR therapy. Approximately 11% of respondents reported that they had consumed alcohol as a direct result of being triggered or activated from an EMDR session, but only 3.6% of participants had missed out on work or something important to them as a direct result of a drinking relapse that was experienced because of an EMDR therapy session. One person chose to comment on what the experience of relapse was like for him or her: "Missed pick-ups. Forgetful. Depressed. Afraid much of the time."

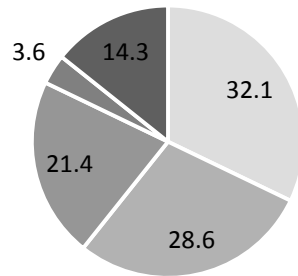


**Effect**

Figure 4 reveals that 60.7% of survey respondents experienced a decrease in their alcohol cravings over the course of receiving EMDR therapy or a significant decrease in their felt addiction. Respondents were asked to report their level of addiction to alcohol before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused exclusively on alcohol; health could be at risk.” An analysis of the data of participant answers before starting EMDR therapy show a relatively low level of addiction; the mean level of addiction was 4.31. This is the result of a wide span of answers, with the minimum level of addiction being reported as 0, and the maximum being 10. Statistical analysis revealed a standard deviation of 3.38 and a variance of 11.422.

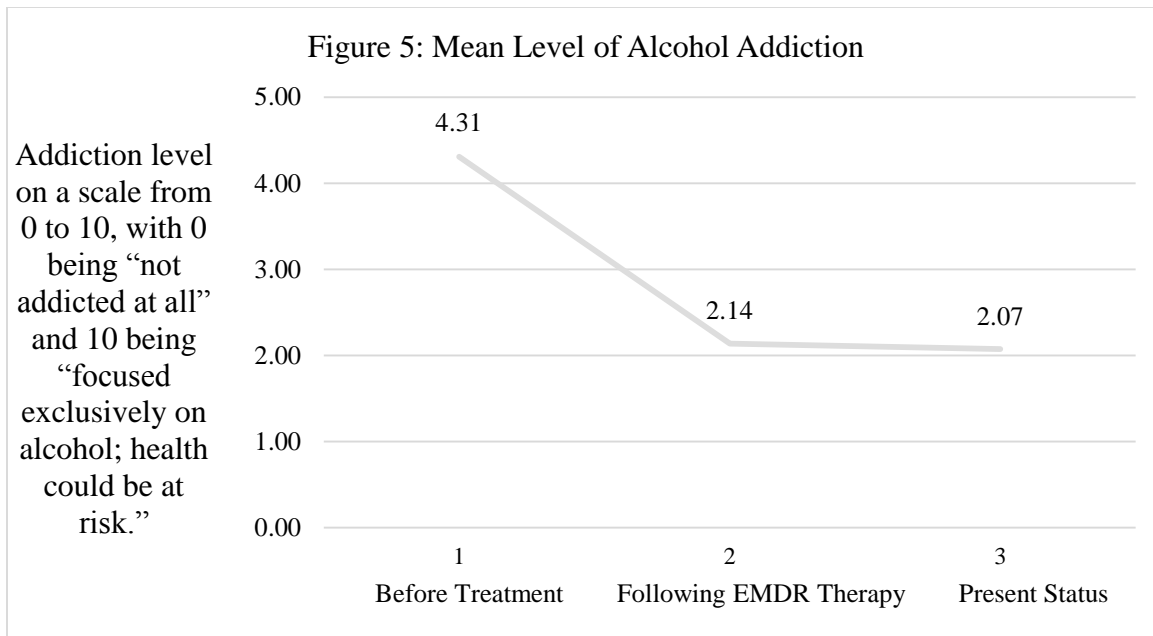
It is worth noting that one person in the study reported an increase in the level of alcohol addiction over the course of EMDR therapy. This person’s self-reported addiction went from a “0” before starting EMDR therapy to a “2” at termination.

Figure 4: How Cravings for Alcohol were Affected over the Course of EMDR Therapy



- Cravings decreased over time (individual felt less addicted) 32.1%
- Cravings decreased significantly over time (individual felt significantly less addicted) 28.6%
- Cravings were about the same over time (individual felt just as addicted) 21.4%
- Cravings increased over time (individual felt more addicted) 3.6%
- I don't remember 14.3%

Included in Figure 5 are the differences in the means of the self-reported level of addiction before receiving EMDR therapy, just after receiving EMDR therapy, and the current level of addiction. There is a clear drop in addiction after EMDR is administered, despite the inclusion of individuals who reported little addiction at the start of EMDR therapy (nine people reported an addiction level of 0, 1 or 2 at the start of therapy). All but seven respondents reported that EMDR therapy had some effect on reducing their level of addiction.



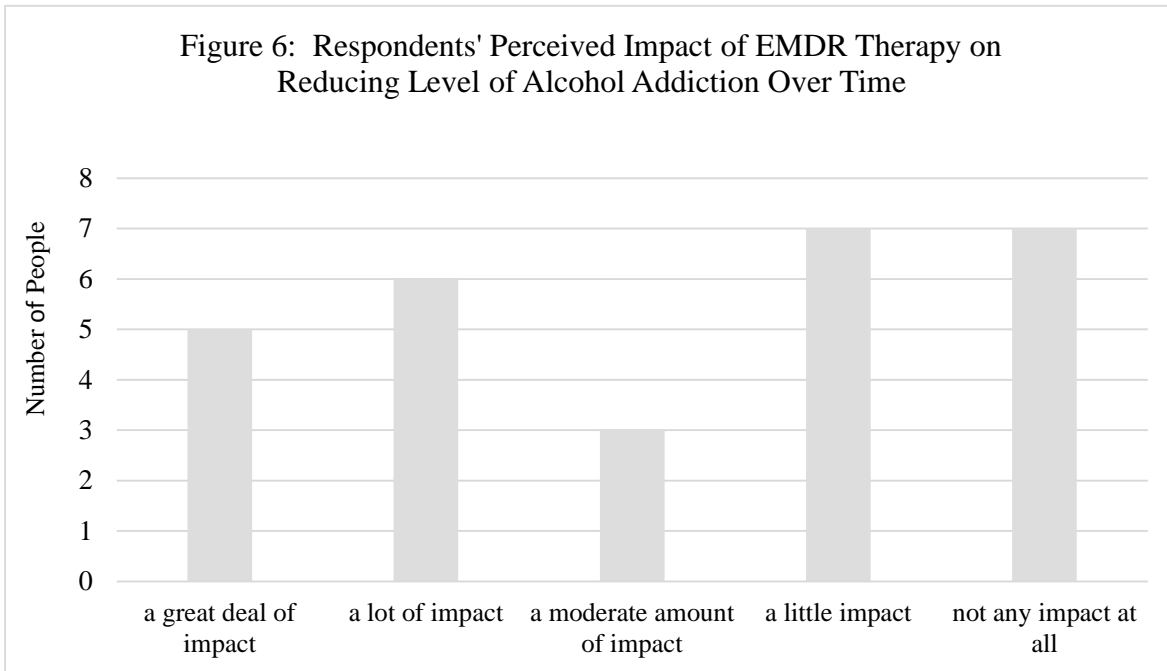
Paired t-tests were performed by Smith College for Social Work’s Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of addiction. Survey respondents had been asked to rate their level of addiction to alcohol before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused exclusively on alcohol; health could be at risk.” Initially, the analysis removed those who had checked “0” (not addicted) before starting EMDR therapy, or 11 (N/A- Not Applicable) from the analysis. Those who had checked “0” were probably people who consider themselves to have the “disease” of alcoholism, as a chronic, and life-long challenge, despite their lack of felt addiction. Those who had checked “Not Applicable” were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the “0”s and “NA”s), and a significant difference was found in the difference of the means ( $t(14) = 4.019, p = .001$ , two tailed). Respondents had rated their addiction as significantly higher (a mean of 5.0) than upon

terminating EMDR therapy (a mean of 3.0), demonstrating that people felt significantly less addicted to alcohol after receiving EMDR therapy.

After completing the statistical analysis, it occurred to me that by leaving out the people who had responded “N/A”, a significant amount of data would be lost, considering that approximately a third of the people who responded to this survey were still receiving EMDR therapy. Given that it is likely that the people who had been referred to this survey had been receiving EMDR therapy for some time, it seemed important to include them in the results as well. A second paired t-test was run, this time including the people who had responded with “N/A” to the level of addiction upon terminating EMDR therapy. Their N/A score was replaced with their current score, or their reported level of addiction “as of today”. This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were quite similar to the original t-tests: there continued to be a significant difference of the means ( $t(19) = 4.183, p = .001$ ) with a beginning mean of 5.6 and an ending (or current) mean of 3.0, demonstrating once more that people felt significantly less addicted to alcohol after receiving EMDR therapy.

Figure 6 shows a comparison of how much impact respondents believe EMDR therapy had on their level of addiction. We can see that five (5) people of 28 participants answered that EMDR therapy had a great deal of impact on reducing their alcohol addiction. This was followed in declining order by six participants who believe that EMDR had a lot of impact, three people who felt it had a moderate amount of impact, seven people who felt it had a little impact, and finally seven people who felt that it had no impact at all. Therefore, only seven people of 28 felt that EMDR had no effect on their degree of addiction. Of those seven people, five reported a very low level of addiction (either a one or zero out of ten) upon initiating EMDR therapy; it is

not surprising that these people reported that EMDR had “no impact at all” on their level of addiction, as they had almost no addiction to start with.



### Drug Addiction

The following is the number of respondents who reported being addicted to each drug listed: nineteen (19) survey respondents reported that they had experienced being addicted to nicotine, 12 to marijuana/hashish, two to heroine, two to cocaine, two to amphetamines, one to methamphetamines, two to methylene-dioxy-meth-ampehtamine (MDMA), four to prescription medications, one to Lysergic Acid Diethylamide (LSD) or mushrooms, and one to inhalants. Ninety-six percent (96%) of the people reporting a drug addiction answered that they had been experiencing the addiction for over five years when they initiated EMDR therapy. Four percent (4%) had experienced the addiction for more than six months, but less than a year. Fifty-two percent (52%) of the respondents stated that they had tried to quit using drugs more than five times before starting EMDR therapy, while approximately 17% had tried to quit between three

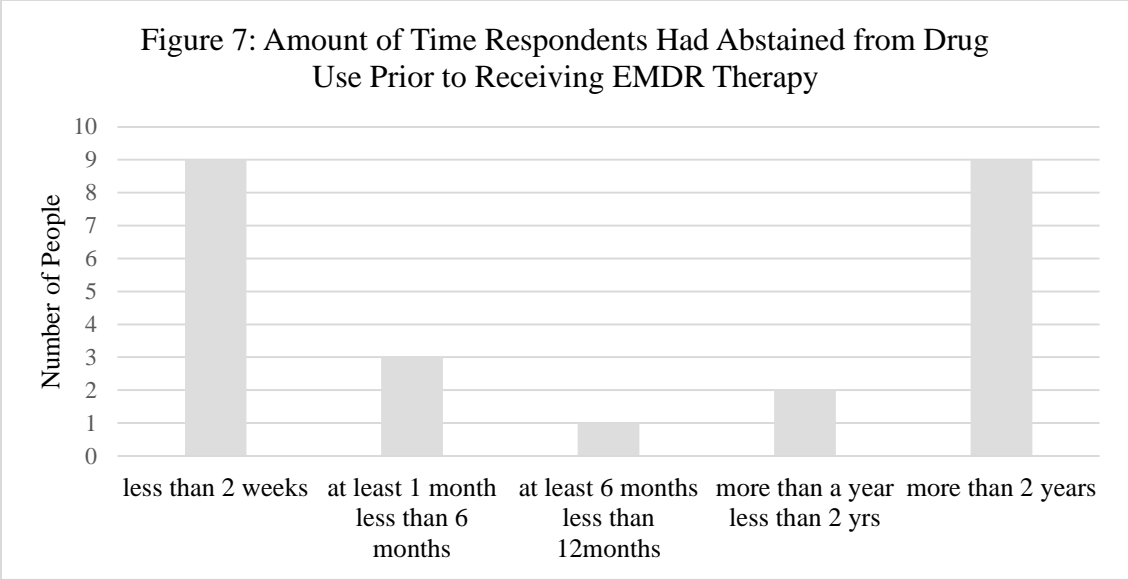


and five times, and 26% had tried to quit once or twice. These frequencies point to the likelihood that this group of people had significant addictions. Only three of the respondents reported that their addiction had been the focus of the EMDR treatment while nineteen answered that their addiction was not the focus of treatment.

### **Sobriety**

From Figure 7, we can see that twelve (12) people in the study had used the drug to which they were addicted during the six months prior to receiving EMDR therapy; these people had not reached a year of sobriety at the time of treatment. Approximately that same number of people (11) had been sober for a year or longer. Nine (9) participants in the study had been sober for two years or more prior to receiving EMDR therapy. It is possible that these nine people were of the five who reported an addiction level of 1 or 2 at the start of therapy, not actually considering themselves to be addicted when they started treatment; this data could potentially skew the results of the study. Nevertheless, this group reported a much higher mean of addiction (6.1) than those who responded to questions on alcohol addiction (4.31) prior to receiving EMDR therapy. One respondent chose to discuss his or her lack of sobriety in relation to receiving EMDR therapy: “[I] used drugs for many years...I always kept a job and interacted with others without their knowing about my situation. Heroin distanced me from the pain that daily life inflicts and I functioned well in this state.”

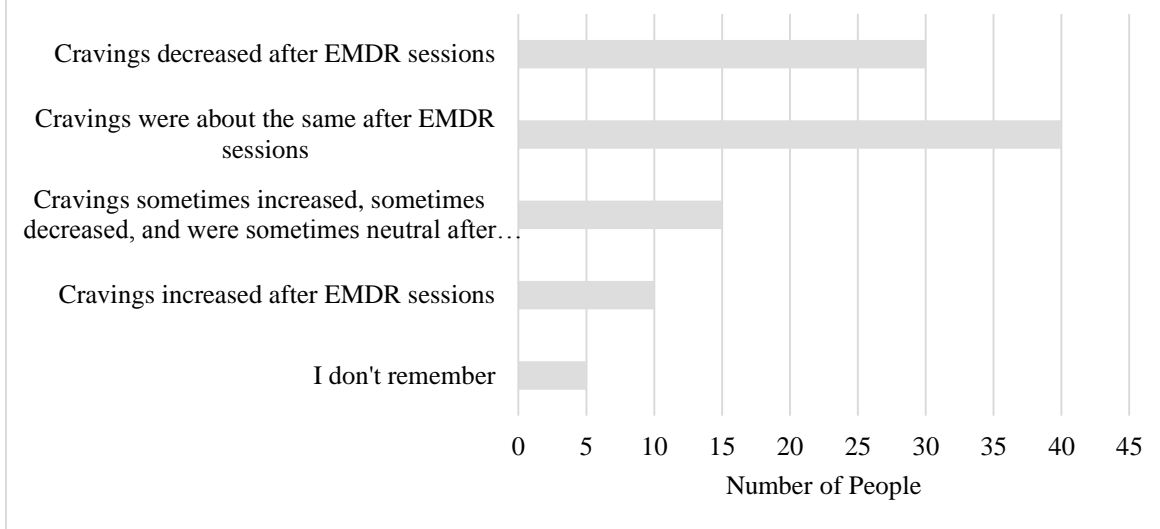
A Spearman rho correlation was run to see if there was a relationship between the length of time since a person had used drugs and their treatment gains. No significant correlations were found, providing evidence that whether or not one has abstained from drug use by the start of EMDR therapy has no impact on treatment outcomes.



**Relapse**

Figure 8 presents what survey participants answered regarding how EMDR therapy affected their cravings for drugs. Respondents answered that 40% of the time, drug cravings were about the same before and after EMDR therapy sessions. This was followed in declining order by cravings decreasing after EMDR sessions (30%), cravings sometimes increasing and sometimes decreasing (15%), and cravings increasing after EMDR therapy (10%). Five percent of participants couldn't remember how their cravings were affected. Therefore, 70% of participants did not feel more inclined to relapse after receiving EMDR therapy. Approximately 9.5% of respondents (2 people) reported that they had consumed drugs as a direct result of being triggered or activated from an EMDR session, but only 4.8% of participants (one person) had missed out on work or something important to them as a direct result of a drug relapse that was experienced because of an EMDR therapy session. This particular person chose to comment on this experience: "This was not during my recent treatment with EMDR, but several years ago. I was in a very volatile state to begin with, I was probably not ready for EMDR."

Figure 8: Drug Addiction Cravings Activated (or Not) by EMDR Therapy Sessions



**Effect**

Figure 9 reveals that 80.93% of survey respondents experienced a decrease in their drug cravings over the course of receiving EMDR therapy or a significant decrease in their felt addiction.

Figure 9: How Cravings for Drugs were Affected over the Course of EMDR Therapy

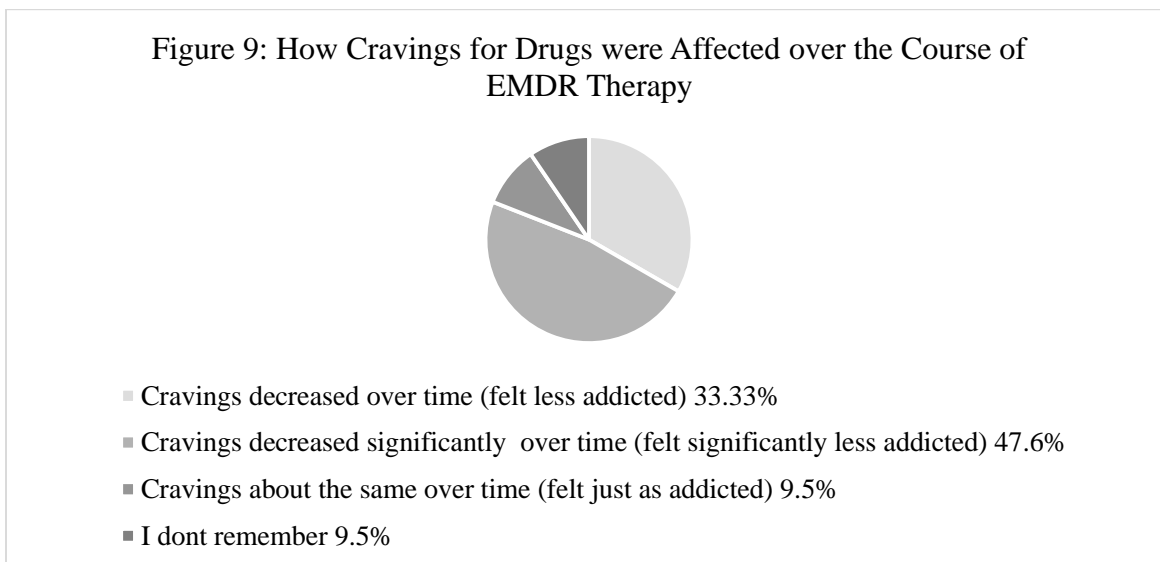
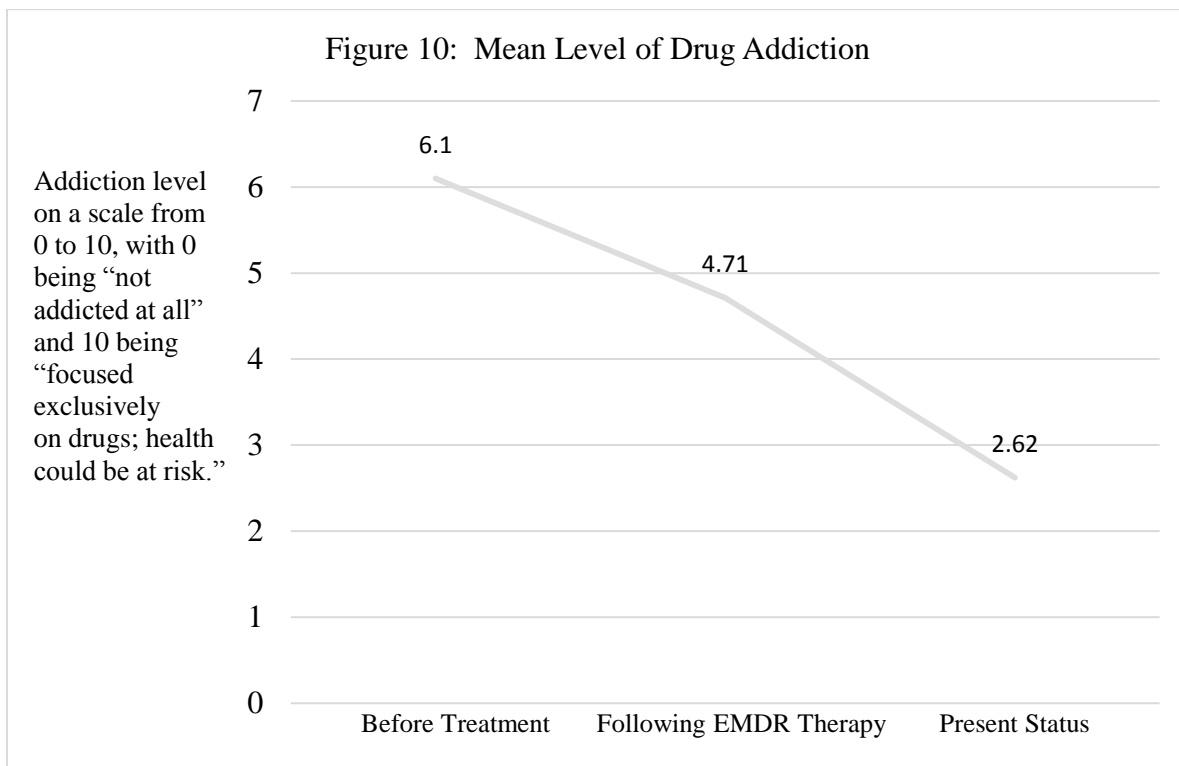


Figure 10 provides a visual of the mean drop of survey participants' level of drug addiction, looking at how intensely addicted participants experienced their addictions at the start

of receiving EMDR therapy, after treatment had ended, and their current level of addiction. Respondents were asked to report their level of addiction to drugs before starting EMDR therapy, upon terminating EMDR therapy, and as of today, on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused exclusively on drugs; health could be at risk.” Participants dropped from a mean rating of 6.1 out of 10 to 4.71 by the end of their EMDR therapy. These results were maintained over time and even continued to drop after treatment was discontinued.



Paired t-tests were performed by Smith College for Social Work’s Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of addiction. Survey respondents had been asked to rate their level of addiction to drugs before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused exclusively on drugs; health could be at risk.” Initially, the analysis removed those who had checked “0” (not

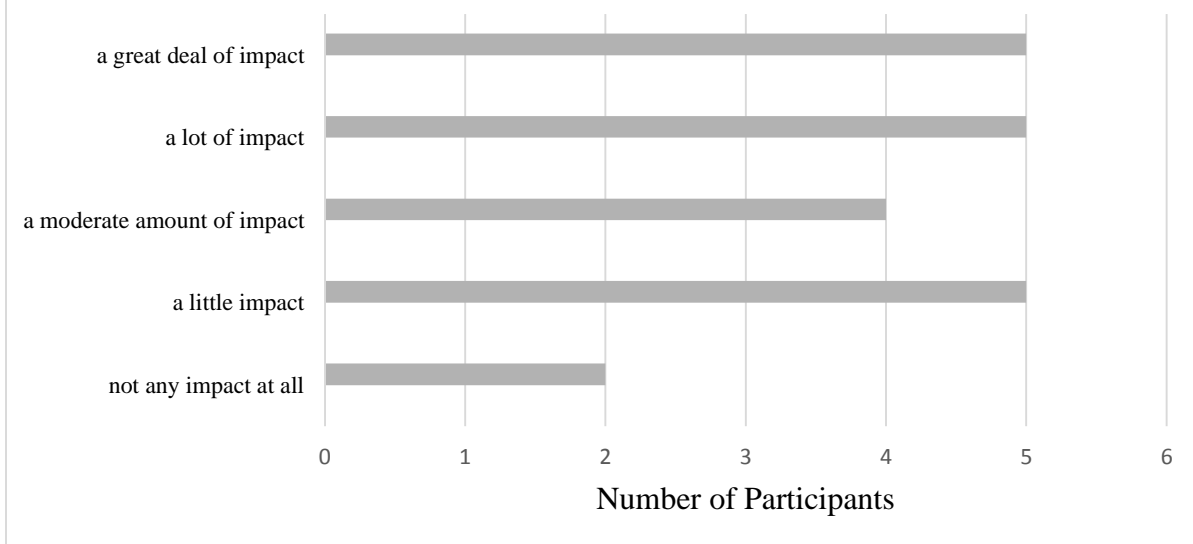
addicted) before receiving EMDR therapy, or 11 (N/A- Not Applicable) from the analysis.

Those who had checked “0” were probably people who consider themselves to have the drug addiction as a chronic, and life-long challenge, despite the lack of felt addiction. Those who had checked “Not Applicable” were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the “0”s and “NA”s), and a significant difference was found in the difference of the means ( $t(12) = 3.293$ ,  $p = .006$ , two tailed).

Respondents had rated their addiction as significantly higher before starting EMDR therapy (a mean of 6.23) than upon terminating EMDR therapy (a mean of 3.46), demonstrating that people felt significantly less addicted to drugs after receiving EMDR therapy.

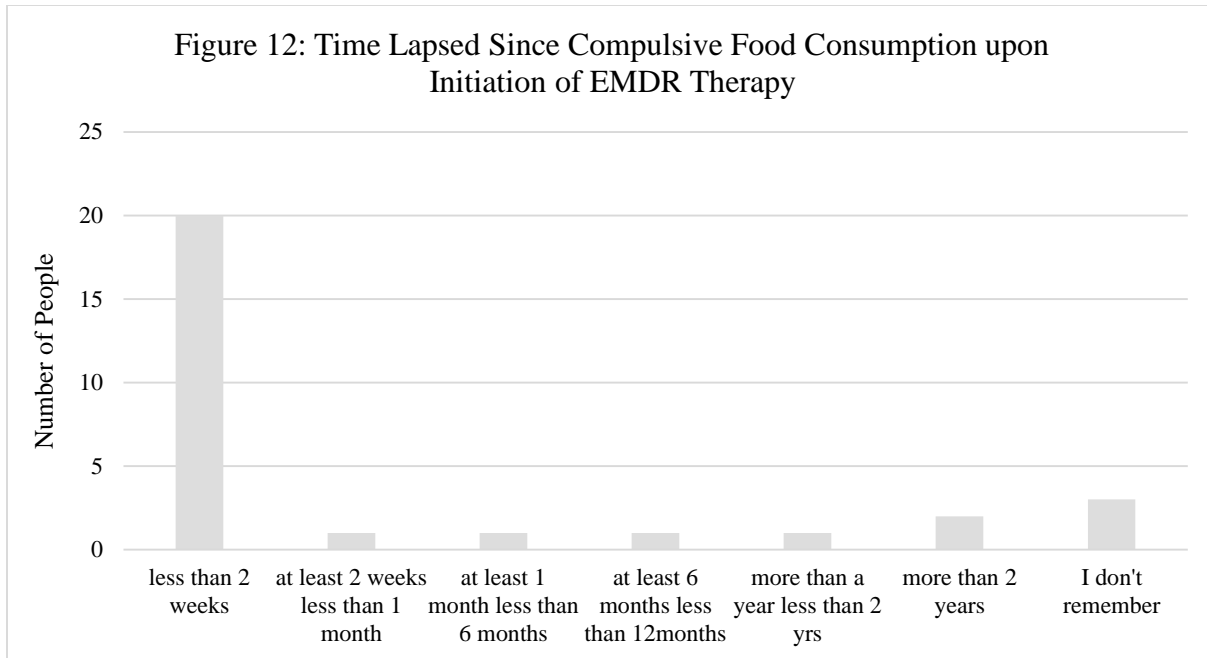
I chose to run a second t-test, for similar reasons that I ran a second test on the mean change for drug addiction. This time, the people who had responded with “N/A” to the level of addiction upon terminating EMDR therapy were included in the analysis. Their N/A score was replaced with their current score, or their reported level of addiction “as of today”. This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were quite similar to the original t-tests: there continued to be a significant difference of the means ( $t(14) = 3.953$ ,  $p = .001$ ) with a beginning mean of 6.67 and an ending (or current) mean of 3.33, demonstrating once more that people felt significantly less addicted to drugs after receiving EMDR therapy. The information provided in Figure 11 shows that only two of the twenty-one respondents felt that EMDR therapy had no impact on their ability to overcome their drug addiction. Ten people reported that they felt that it had had either a “great deal” or “a lot of” impact on their ability to overcome their addiction, while four people reported that it had a “moderate” amount of impact, and five stated that it had “a little impact.”

Figure 11: Respondents' Perceived Impact of EMDR Therapy on Reducing Level of Drug Addiction Over Time



### **Compulsive Eating**

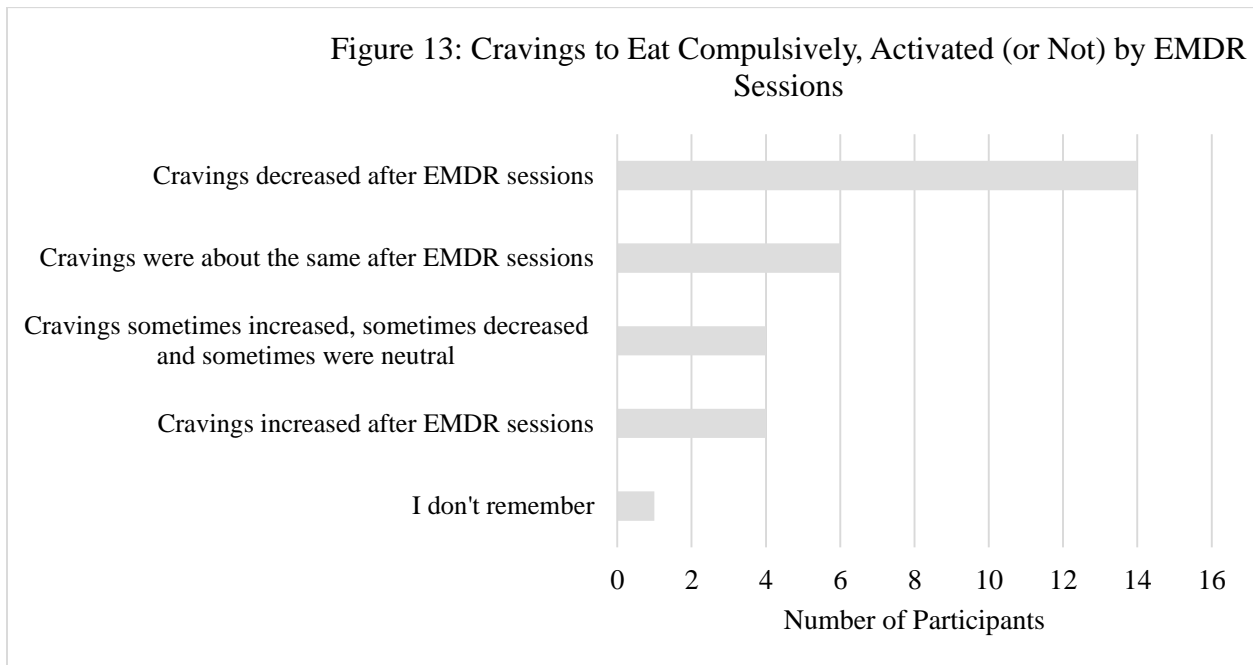
Thirty (30) survey respondents reported that they had struggled with compulsive food consumption. Twenty five (25) of those participants answered that they had tried to address their compulsive eating more than three times before starting EMDR therapy, indicating the likelihood that this group of people had a significant behavioral addiction. Approximately 76% of the people surveyed had consumed food compulsively within the six months prior to receiving EMDR therapy. The information provided in Figure 12 shows that that 20 of 29 people who answered the question had consumed food compulsively two weeks prior to starting EMDR therapy, demonstrating that the majority of respondents were actively experiencing their addictive behavior upon the initiation of treatment. However, only five of those people recalled that addressing their compulsive eating behavior was a treatment goal.



### **Compulsive Eating Triggered by EMDR Sessions**

Figure 13 presents what survey participants answered regarding how EMDR therapy affected their cravings to eat compulsively after EMDR therapy sessions. Fourteen (14) people reported that their cravings after EMDR therapy sessions decreased. This was followed by cravings being about the same before and after EMDR sessions (6 people). Four (4) of the surveyed participants answered that their cravings sometimes increased and sometimes decrease, and four (4) of them also reported that they remembered their cravings increasing after EMDR therapy. One person did not remember how their cravings were affected. Therefore, 69% of participants did not feel more inclined to eat compulsively as a direct result of receiving EMDR therapy. Approximately 10% of respondents reported that they remembered having compulsively consumed food as a direct result of being triggered or activated from an EMDR session. One person reported that he or she had missed work after such experiences. This person described the experience in the comment section: “I was dealing with a newly diagnosed fatty

liver that made me very sick if I ate large amounts of sugar. I ended up at the ER needing fluids a few times. I have missed work from how sick over eating makes me.”

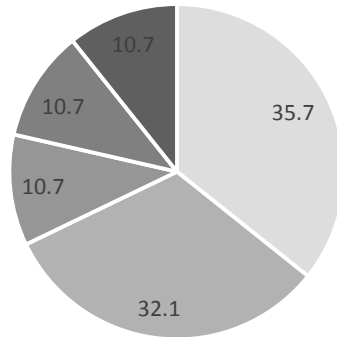


### Effect

Figure 14 shows that 67.8% of survey respondents experienced either a decrease or a significant decrease in their compulsive food consumption over the course of receiving EMDR therapy. It is important to note that three people (10.7% of those surveyed) felt that their compulsive food consumption addiction got worse over the course of EMDR therapy.

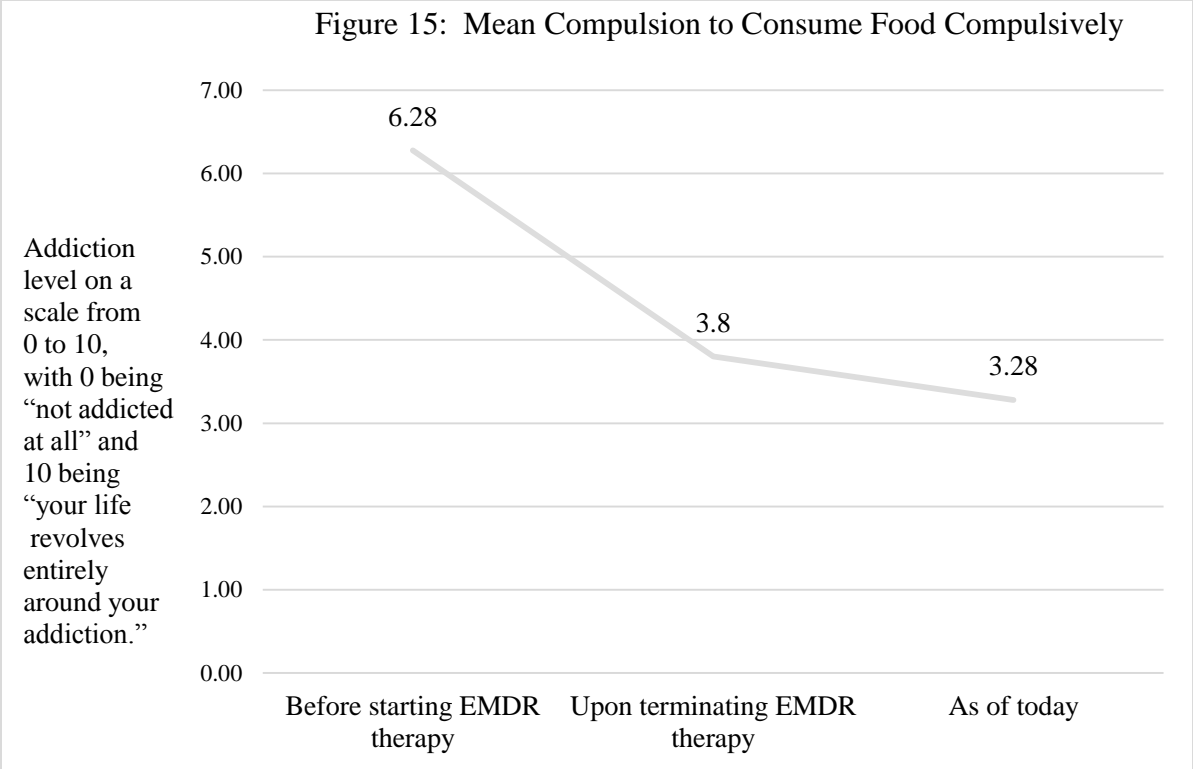


Figure 14: How Compulsive Food Consumption was Affected over the Course of EMDR Therapy



- Cravings to consume food compulsively decreased significantly over time (felt significantly less addicted) 35.7%
- Cravings to consume food compulsively decreased over time (felt less addicted) 32.1%
- Cravings to consume food compulsively were about the same over time (felt just as addicted) 10.7%
- Cravings to consume food compulsively increased over time (felt more addicted) 10.7%
- I don't remember 10.7%

Figure 15 provides a visual of the mean drop of survey participants' level of compulsive food consumption, looking at how intensely participants experienced their behavioral addictions at the start of receiving EMDR therapy, after treatment had ended, and their current level of addiction. The respondents were asked to assign values to their inclination to consume food compulsively ranging from 0 to 10, with 0 being "not addicted at all" and 10 being "your life revolves entirely around your addiction." Participants dropped from a mean rating of 6.28 out of 10 to a mean of 3.8 by the end of their EMDR therapy. These results were maintained over time and even continued to drop to a mean of 3.28 after treatment was discontinued.

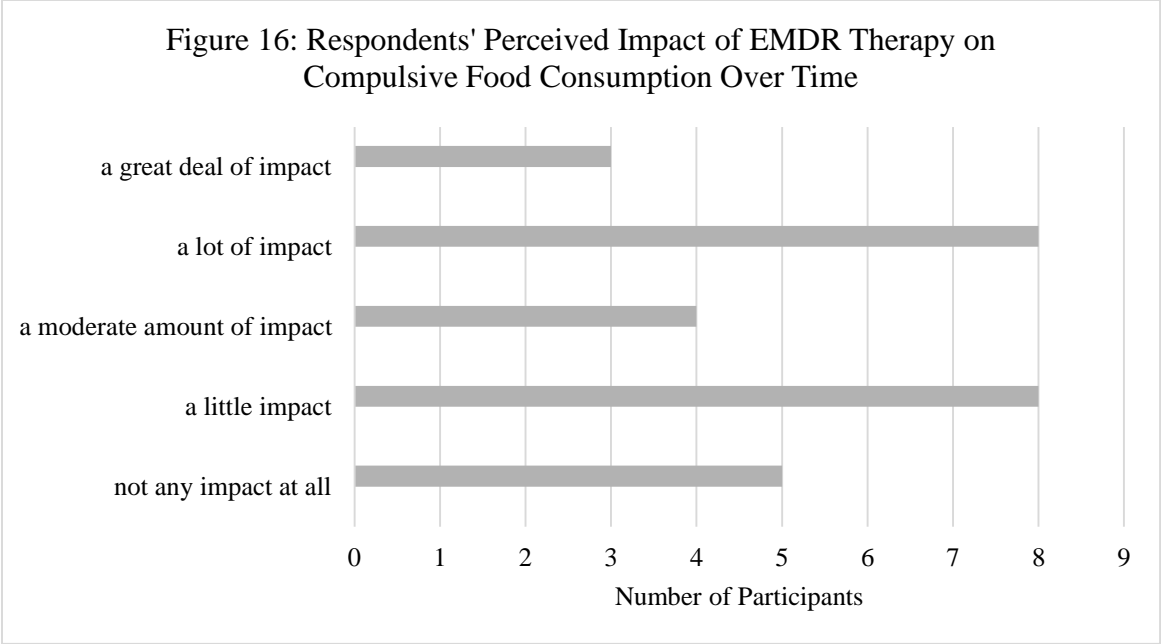


Paired t-tests were performed by Smith College for Social Work’s Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of eating compulsion addiction. Survey respondents had been asked to rate their level of addiction to drugs before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “your life revolves entirely around your addiction.” Initially, the analysis removed those who had checked “0” (not addicted) before receiving EMDR therapy, or 11 (N/A- Not Applicable) from the analysis. Those who had checked “0” were probably people who consider themselves to have the eating compulsion as a chronic, and life-long challenge, despite the current lack of felt addiction. Those who had checked “Not Applicable” were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the “0”s and “NA”s), and a significant difference was found in the difference of the means ( $t(24) = 5.116$ ,  $p = .000$ , two tailed). Respondents had rated their addiction as significantly higher upon starting

EMDR therapy (a mean of 6.44) than upon terminating EMDR therapy (a mean of 3.80) demonstrating that people felt significantly less afflicted by their eating compulsion after receiving EMDR therapy.

I chose to run a second t-test for similar reasons that I ran a second test on the mean change for alcohol and drug addictions. This time, the people who had responded with “N/A” to the level of addiction upon terminating EMDR therapy were included in the analysis. Their N/A score was replaced with their current score, or their reported level of addiction “as of today”. This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were quite similar to the original t-tests: there continued to be a significant difference of the means ( $t(28) = 5.419, p = .000$ ) with a beginning mean of 6.28 and an ending (or current) mean of 3.76, demonstrating once more that people felt significantly less afflicted by their eating compulsion after receiving EMDR therapy.

The information provided in Figure 16 shows that only five (5) of 28 respondents felt that EMDR therapy had no impact on their compulsive food consumption. Eleven (11) people reported that they felt that it had had either a “great deal” or “a lot of” impact on their ability to overcome their addiction, while (4) four people reported that it had a “moderate” amount of impact, and eight (8) stated that it had “a little impact.”



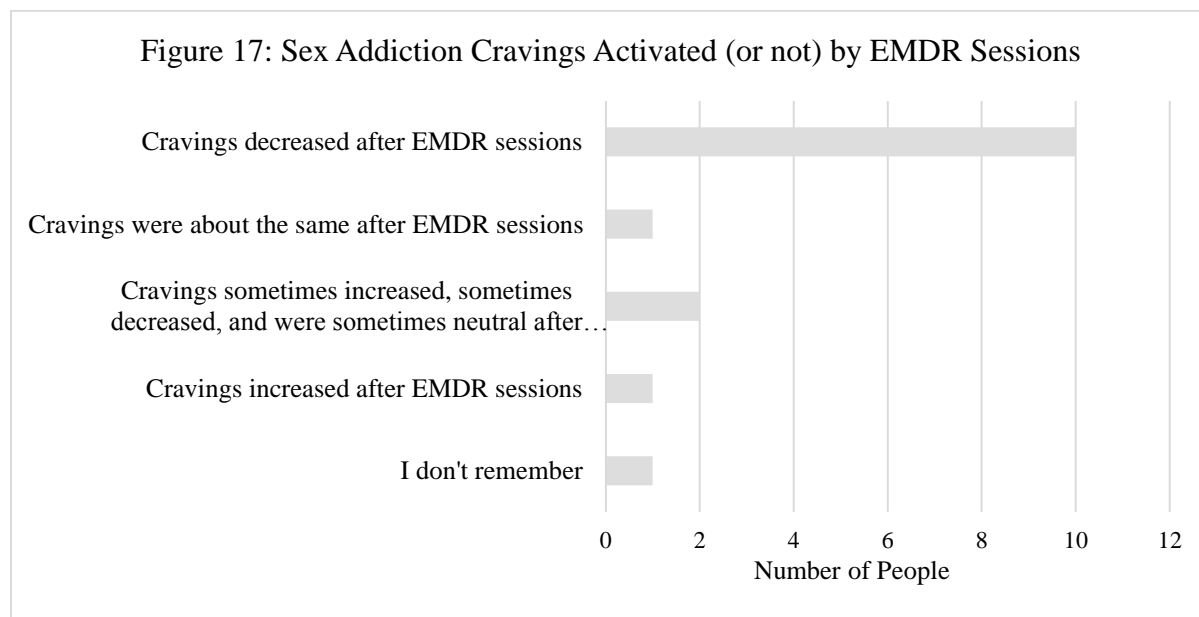
**Sex Addiction**

Fifteen survey respondents reported that they had experienced having a sex addiction. Addiction in the survey was defined as “wanting to be less consumed with the idea of or having sex, but not being capable of achieving this goal.” The mean period of time that individuals reported having a sex addiction before starting EMDR therapy was 3.73 years. The mean amount of times people had tried to address their sex addiction was 2.53 years. Only four of the respondents reported that their sex addiction had been the focus of the EMDR treatment. Seventy three point three percent (73.3%) of the people surveyed on sex addiction answered that they had engaged in their addictive behavior less than six months prior to receiving EMDR therapy, while 93.3% had engaged in the sexually addictive behaviors over the year prior to treatment.

**Sex Addiction Triggered by EMDR Sessions**

Figure 17 presents what survey participants answered regarding how sessions of EMDR affected their compulsions to engage in their sex addiction. Among the respondents, compulsion

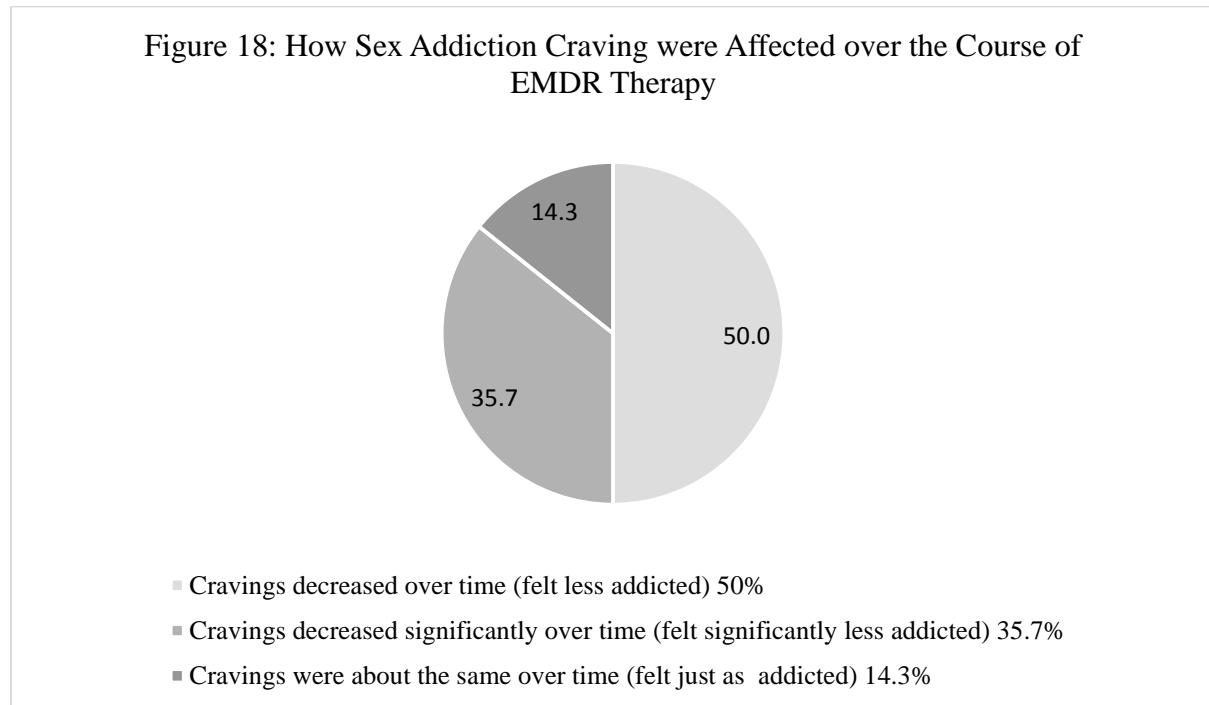
to engage in their sex addiction after EMDR therapy sessions decreased most frequently; ten (10) people (66.7% of respondents) reported this as their experience. This was followed by the compulsion sometimes increasing, sometimes decreasing and sometimes being neutral after EMDR sessions (2 people). One person answered that his or her compulsion increased, one person answered that it remained the same, and one person answered that he or she did not remember how the compulsion to have sex was affected. Two survey participants remember having engaged in sexual behaviors in an addictive manner as a direct result of being triggered or activated from an EMDR session with his or her therapist.



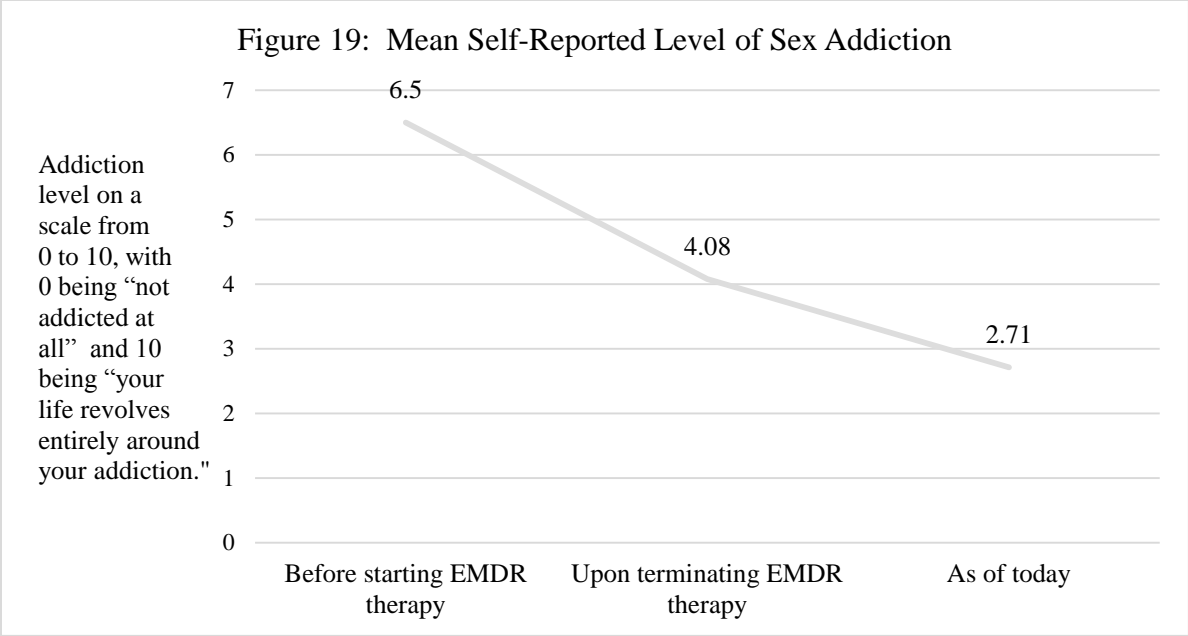
**Effect**

Figure 18 illustrates how 85.7% of the 15 research participants who identified as having had a sex addiction, experienced either a decrease in their sex addiction over the course of receiving EMDR therapy, or a significant decrease in their felt degree of addiction. Respondents were asked to report their level of sex addiction before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “your life revolves entirely around your addiction.” An analysis of the data of participant

answers before starting EMDR therapy reveals a relatively high level of addiction; the mean level of addiction was 6.5 out of 10. This is the result of a wide span of answers, with the minimum level of addiction being reported as 3, and the maximum being 9. Statistical analysis revealed a standard deviation of 1.871 and a variance of 3.5.



Included in Figure 19 are the differences in the means of the self-reported level of sex addiction before receiving EMDR therapy, just after receiving EMDR therapy, and the current level of addiction. There was a clear drop in sex addiction after EMDR was administered. All but two respondents reported that EMDR therapy had some effect on reducing their level of sex addiction.



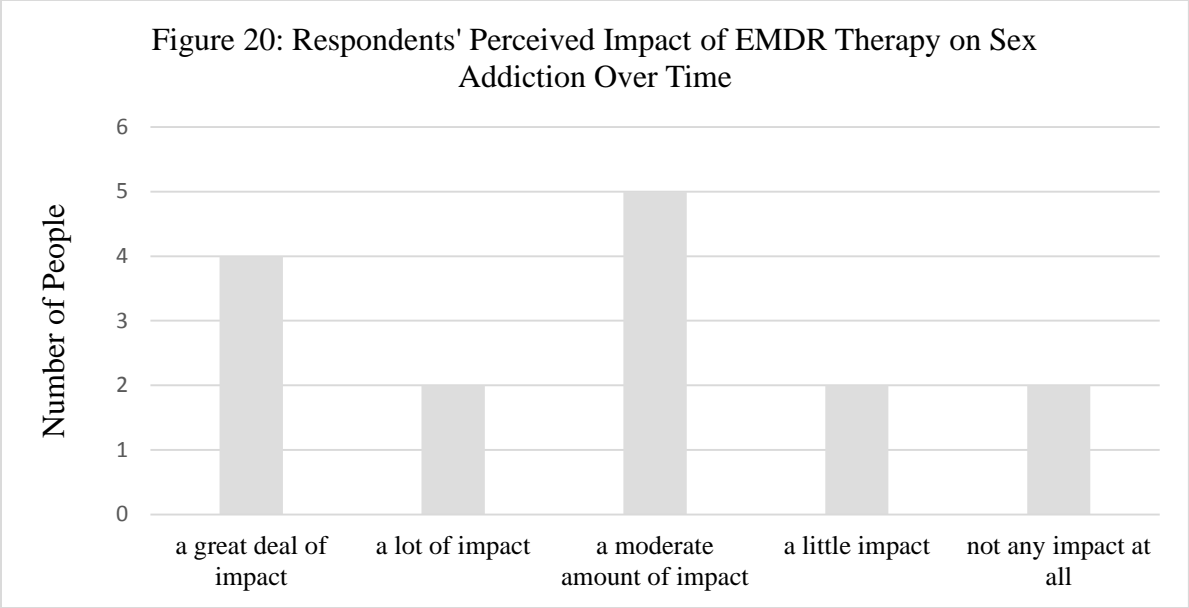
Paired t-tests were performed by Smith College for Social Work’s Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of sex addiction. Survey respondents had been asked to rate their level of addiction to sex before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “your life revolves entirely around your addiction.” Initially, the analysis removed those who had checked “0” (not addicted) before receiving EMDR therapy, or 11 (N/A- Not Applicable) from the analysis. Those who had checked “0” were probably people who consider themselves to have the sex addiction as a chronic, and life-long challenge, despite the current lack of felt addiction. Those who had checked “Not Applicable” were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the “0”s and “NA”s), and a significant difference was found in the difference of the means ( $t(11) = 5.562, p = .000$ , two tailed). Respondents had rated their addiction as significantly higher (a mean of 6.5) than upon

terminating EMDR therapy (a mean of 4.08), demonstrating that people felt significantly less addicted to sex after receiving EMDR therapy.

I chose to run a second t-test, for similar reasons that I ran a second test on the mean change for alcohol, drug, and eating compulsion addictions. This time, the people who had responded with “N/A” to the level of sex addiction upon terminating EMDR therapy were included in the analysis. Their N/A score was replaced with their current score, or their reported level of addiction “as of today”. This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were quite similar to the original t-tests: there continued to be a significant difference of the means ( $t(12) = 6.121, p = .000$ ) with a beginning mean of 6.54 and an ending (or current) mean of 4.08, once again demonstrating that people felt significantly less addicted to sex after receiving EMDR therapy.

Figure 20 shows a comparison of how much impact respondents believe EMDR therapy had on their degree of sex addiction. We can see that four (4) of 15 survey respondents answered that EMDR therapy had a great deal of impact on reducing their sex addiction. This was followed in declining order by two (2) participants who believe that EMDR had a lot of impact, five (5) people who felt it had a moderate amount of impact, and finally two (2) people who felt that it had a little impact. Only two (2) people in the study on sex addiction felt that EMDR therapy had no impact on their degree of addiction.



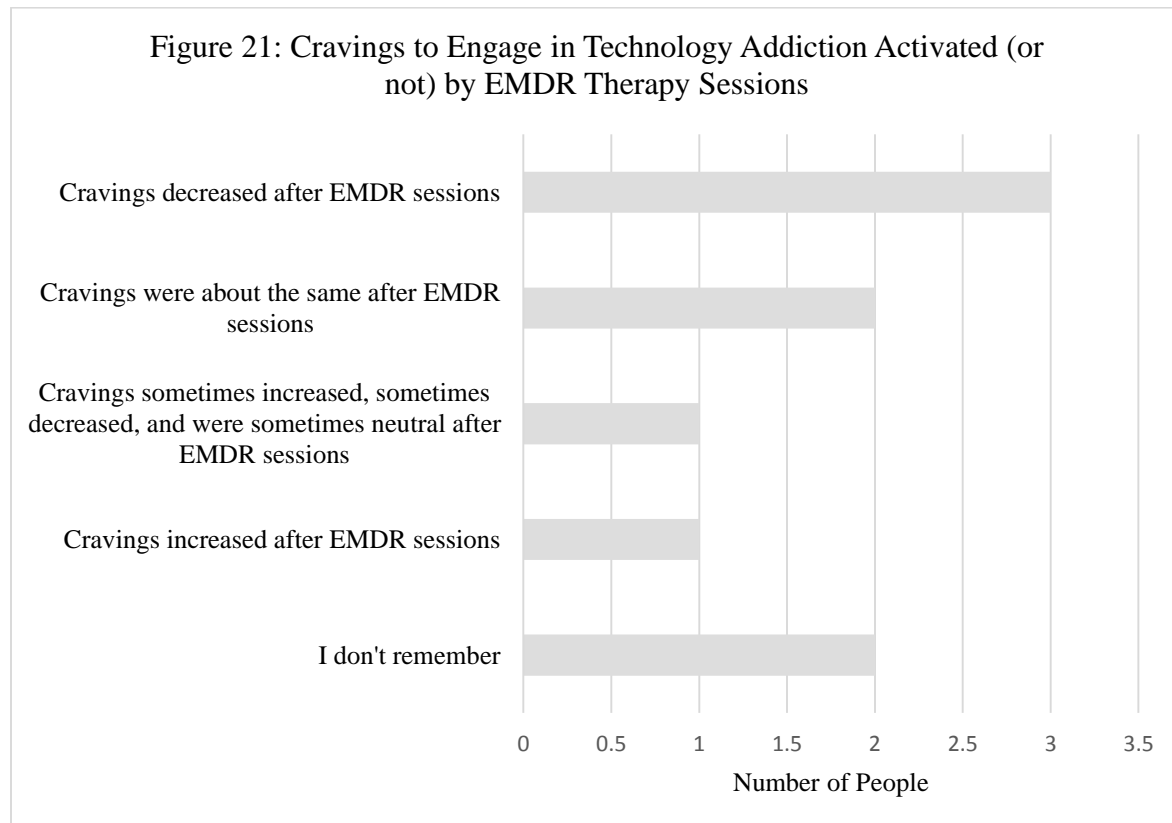


**Technology Addiction**

Nine (9) survey respondents answered that they had experienced being addicted to some version of technology. Technology addiction in the survey was defined as “compulsive use of the internet, video games, TV, etc.; wanting to use the technology less, but not being capable of achieving this goal.” Seven (7) of those nine (9) people reported that they had been addicted to technology for over five years, while the remaining two (2) reported that they had been addicted to technology for more than three years, but less than five years. The mean amount of times people had tried to stop their technology addiction was approximately 2.89 years. Seventy-seven point eight percent (77.8%) of the survey participants answered that they had engaged in their addictive behavior within the six months prior to receiving EMDR therapy. Each of these frequencies point to the likelihood that this group of people had a significant addiction to technology. However, the technology addiction was not the focus of the EMDR treatment for any of the survey respondents.

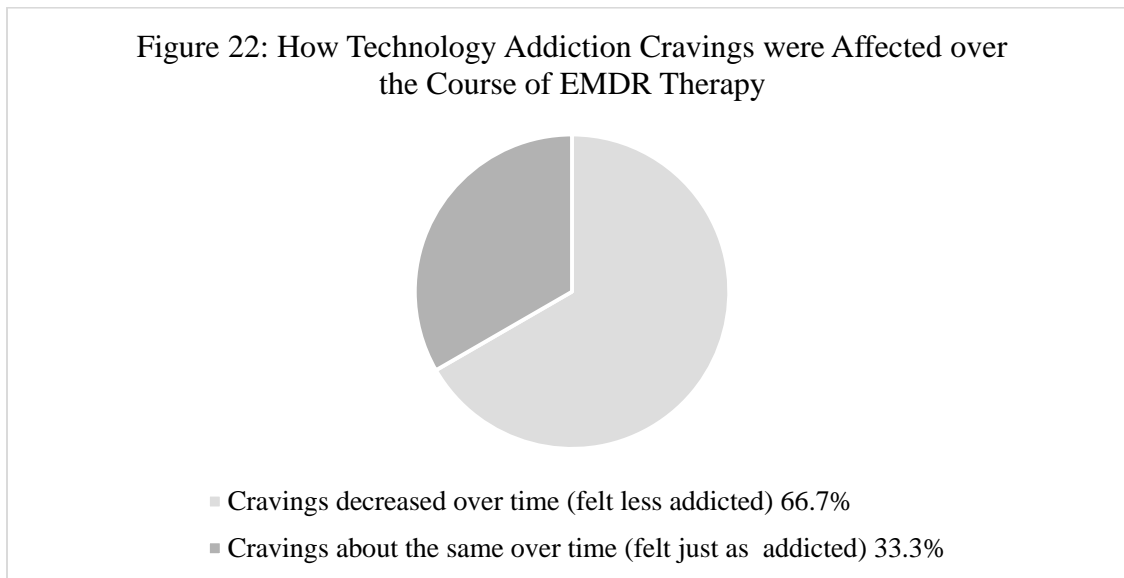
## Technology Addiction Triggered by EMDR Sessions

Figure 21 presents how survey participants believe their EMDR therapy affected cravings for their technology addiction. Three (3) respondents out of nine (9) total answered that their cravings for their technology addiction declined after EMDR sessions. Two (2) people reported that their cravings to engage with technology were about the same before and after EMDR sessions. One (1) survey participant answered that cravings sometimes increased, sometimes decreased and sometimes were the same after EMDR sessions, while one (1) other person reported that his or her cravings increased after EMDR therapy. One (1) subject could not remember the effect that EMDR therapy had on his or her technology addiction. None of the subjects reported that they had engaged in their technology addiction as a direct result of being triggered or activated from an EMDR session.



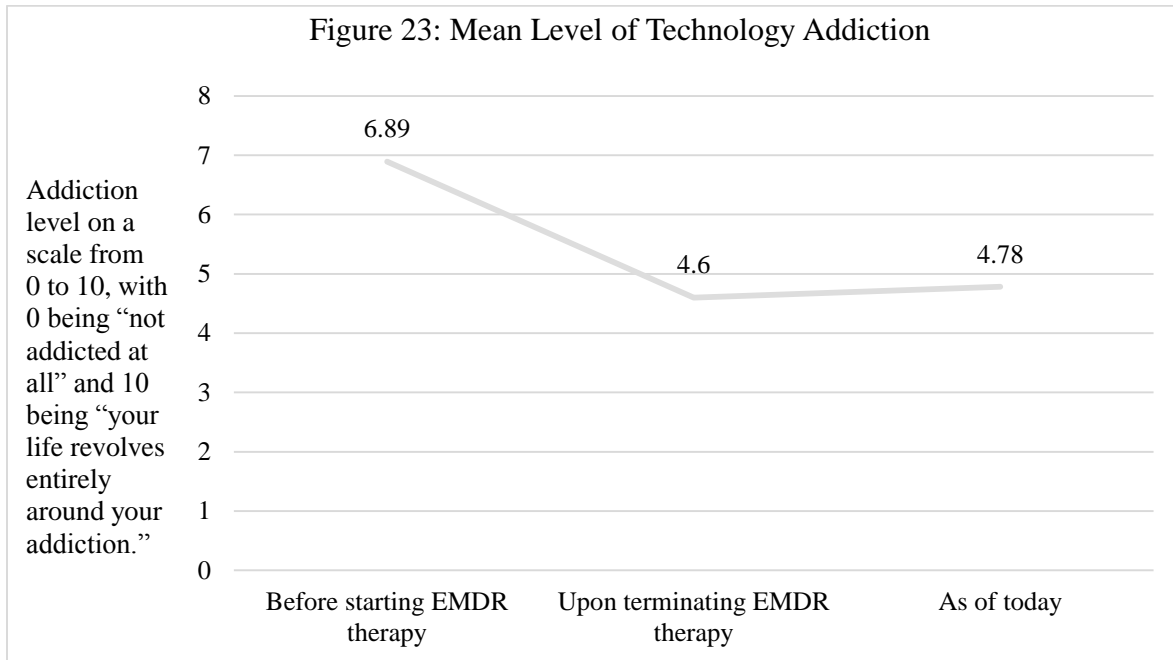
## Effect

As shown in Figure 22, sixty-six point seven percent (66.7%) of the survey participants who identified as having a technology addiction believed that their cravings for their addiction decreased over the span of receiving EMDR therapy. Thirty-three point three percent (33.3%) felt that their technology addiction was about the same before and after EMDR therapy, or that EMDR had had no effect on their cravings to engage with technology.



Included in Figure 23 are the differences in the means of the self-reported level of technology addiction before receiving EMDR therapy, just after receiving EMDR therapy, and the current level of addiction. There is a clear drop in technology addiction from the time EMDR is administered to the time that it ends, and a slight rise in the addiction thereafter to present day. It is likely that this rise is not representative of an actual increase in felt addiction, but an indication that only five (5) of the nine (9) participants had ended their EMDR therapy as of today, and the numbers of those subjects had not been included in the “upon ending EMDR” mean. Even though participants felt like their cravings decreased gradually over the time during which they received EMDR therapy, only two (2) of the respondents reported that EMDR

therapy had a great deal of impact on reducing their technology addiction, while two (2) other participants believe EMDR had a moderate amount of impact. The remaining five (5) survey respondents reported that it had “a little impact” on their addictive behavior.

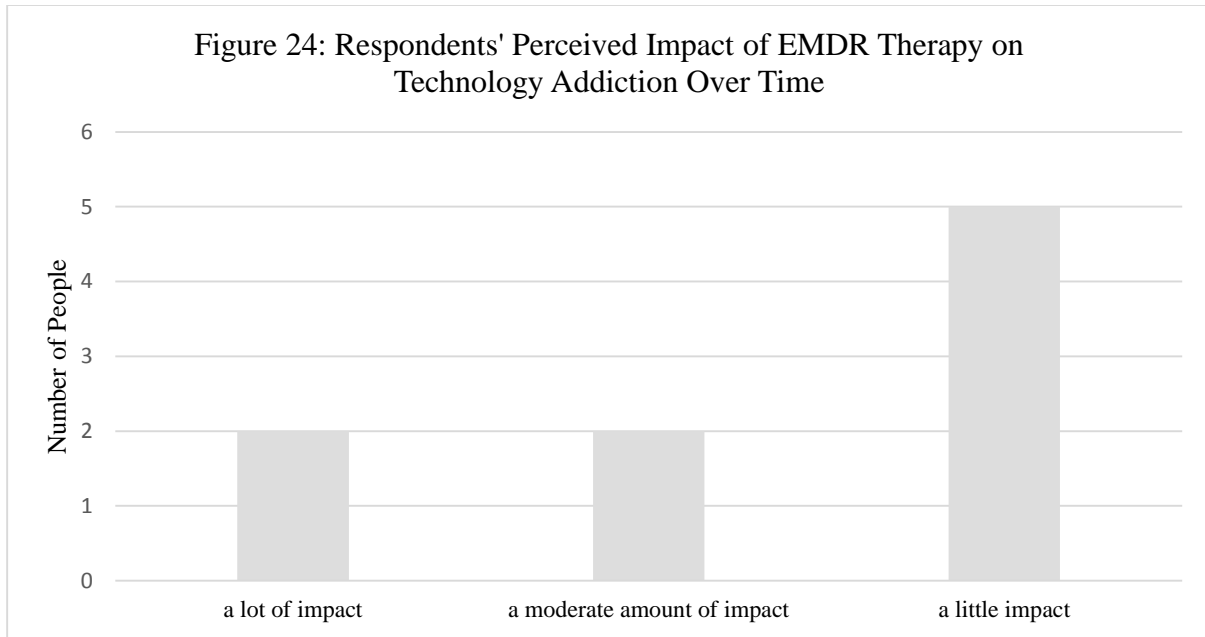


Paired t-tests were performed by Smith College for Social Work’s Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of technology addiction. Survey respondents had been asked to rate their level of addiction to technology before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “your life revolves entirely around your addiction.” Initially, the analysis removed those who had checked “0” (not addicted) before receiving EMDR therapy, or 11 (N/A- Not Applicable) from the analysis. Those who had checked “0” were probably people who consider themselves to have the technology addiction as a something chronic, despite the current lack of felt addiction. Those who had checked “Not Applicable” were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the “0”s and “NA”s), and no

significant difference was found; however, this was most likely due to the small sample size of five pairs of data.

I had the data analyst run a second t-test in order to have a larger sample size, and potential results. This time, the people who had responded with “N/A” to the level of sex addiction upon terminating EMDR therapy were included in the analysis. Their N/A score was replaced with their current score, or their reported level of addiction “as of today”. This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were as follows: there was a significant difference in the means ( $t(8) = 3.357, p = .010$ ) with a beginning mean of 6.89 and an ending (or current) mean of 4.62, ), demonstrating that people felt significantly less addicted to technology after receiving EMDR therapy.

Figure 24 shows a comparison of how much impact respondents believe EMDR therapy had on their degree of technology addiction. We can see that two (2) of nine (9) survey respondents answered that EMDR therapy had a great deal of impact on reducing their technology addiction. Two (2) participants also believe that EMDR had a moderate amount of impact on their technology addiction, and five (5) people feel it had a little impact.



### **Gambling Addiction**

Only one survey participant identified as having an addictive gambling behavior, defined in this study as “wanting to gamble less, but not being capable of achieving this goal.” This respondent reported that he or she had experienced this addictive behavior during less than six months and had never tried to overcome the addiction prior to engaging in EMDR therapy. When EMDR therapy initiated, this subject recalled that it had been less than six months since he or she had engaged in addictive gambling behavior. Although overcoming the gambling addiction was not a focus of the EMDR therapy, this individual reported being “extremely” motivated to stop gambling. He or she did not remember gambling in an addictive manner as a direct result of being triggered or activated from an EMDR session. This person recalled a decrease in cravings to gamble after EMDR sessions, and a significant decrease in cravings over the course of therapy. The respondent was asked to report his or her level of gambling addiction before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “your life revolves entirely around your

addiction.” The degree of addiction reported at the before the initiation of EMDR therapy was a two (2), while the degree for both “upon terminating therapy” and “as of today” were zeros (0), or no addiction. This survey respondent answered that he or she believed that EMDR had “a moderate amount of impact” on his or her ability to overcome the gambling addiction.

### **Other Addictions**

Eighteen (18) survey respondents answered that they had experienced some “other” addiction that didn’t fit into the alcohol, drug, sex, technology or gambling addiction categories. Four (4) of the eighteen (18) reported that they had a nail biting addiction. Five (5) people identified their addiction as “compulsive spending or debting,” or excessive shopping. Two (2) reported that their addiction was about “control.” The remaining six (6) survey respondents all had unique addictions: picking at cuticles, “hateful inner self-dialogue,” lip biting, excessive exercise, non-suicidal self-injury (NSSI) and cigarette smoking (which could have been classified under a nicotine drug addiction). One survey respondent did not identify what his or her addiction was, but chose to respond to the rest of the questions regarding the addiction. Seventeen of the participants had experienced their addictive behaviors for five years or more, while only one of the participants reported that the addiction had been present for at least one year, but less than three. This points to these addictive behaviors being significantly ingrained for each of the individuals surveyed. The majority of the respondents (12) had tried to quit their addictive behavior more than five times. The mean amount of times people had tried to stop their addiction was approximately 3.44 times. Sixteen (16) of the eighteen (18) participants had engaged in their addictive behaviors within a year of receiving EMDR therapy, and thirteen (13) of them had experienced the behaviors within the past month. Therefore, most of the individuals with “other” addictions were actively experiencing their addictions when EMDR therapy

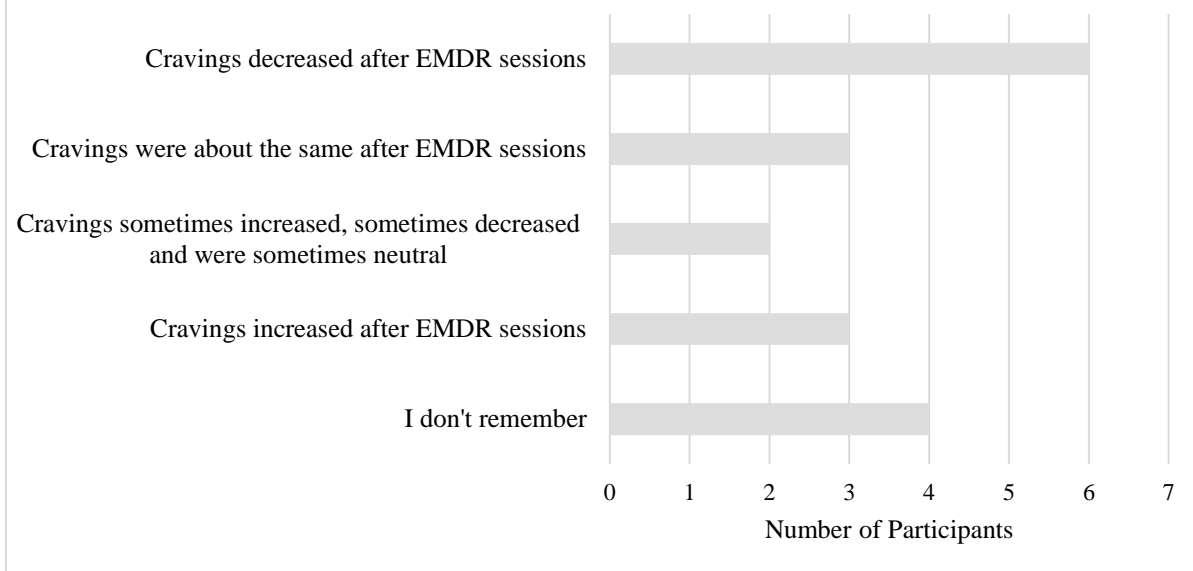
initiated, although only two (2) of the subjects reported that this “other” addiction was a focus of the EMDR therapy.

### **“Other” Addiction Triggered by EMDR Sessions**

Figure 25 presents what survey participants answered regarding how sessions of EMDR affected their cravings to engage in their “other” addiction. Among the respondents, compulsion to engage in their “other” addiction after EMDR therapy sessions decreased most frequently; six (6) people (33.3% of respondents) reported this as their experience. Three (3) people answered that their compulsion increased and three (3) people answered that their compulsion remained the same. This was followed by the compulsion sometimes increasing, sometimes decreasing and sometimes being neutral after EMDR sessions (2 people). Four (4) people did not remember how they had experienced their addiction after EMDR sessions. Five (5) of the eighteen (18) survey participants remembered having engaged in their addictive behaviors as a direct result of being triggered or activated from an EMDR session with his or her therapist. Two (2) of these five (5) people reported that they had missed work or missed out on something important to them as a direct result of being triggered into their specific addictive behavior because of an EMDR therapy session. One person chose to comment on this experience: “There are/were times when I was already pretty close to engaging in NSSI, and a trigger from EMDR is what pushed me over the edge. However, there are times when I was close to engaging in NSSI and after an EMDR session I was able to cope in more healthy ways.”



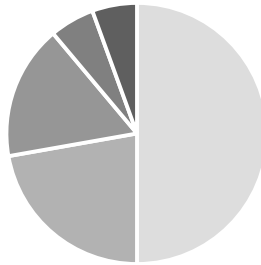
Figure 25: Cravings for "Other" Addictions Activated (or not) by EMDR Therapy Sessions



**Effect**

Figure 26 reveals that 72.2% of the people who reported on their “other” addiction either experienced a decrease in their addiction over the course of receiving EMDR therapy or a significant decrease in their felt degree of addiction. Respondents were asked to report their level of “other” addiction before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused on addiction to the exclusion of all other things.” An analysis of the data of participant answers before starting EMDR therapy reveal a relatively high level of addiction; the mean level of addiction was six point six seven (6.67) out of ten (10). This is the result of a wide span of answers, with the minimum level of addiction being reported as one (1), and the maximum being nine (9). Statistical analysis revealed a standard deviation of 1.653 and a variance of 2.731. It is worth noting that one person in the study reported an increase in the level of this “other” addiction over the course of EMDR therapy.

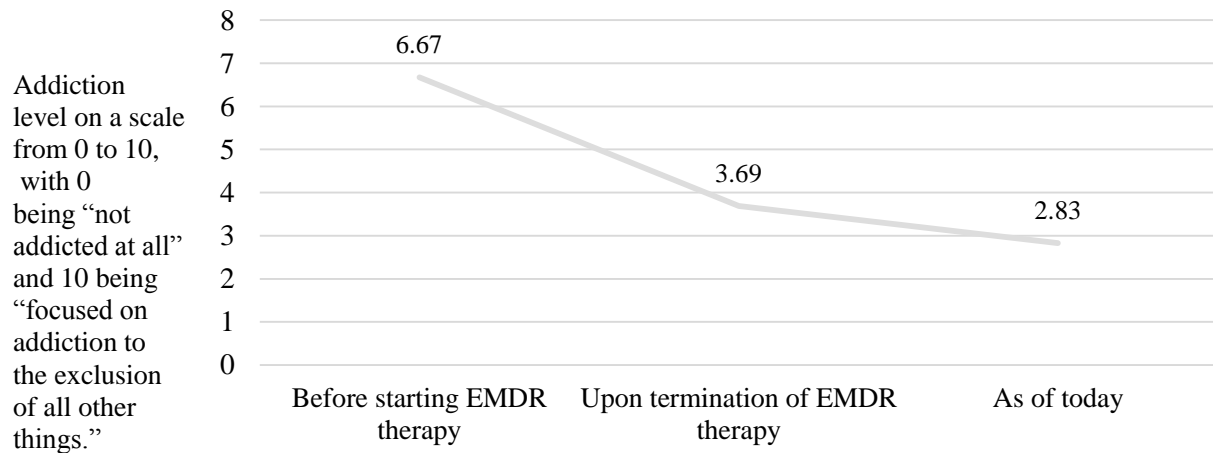
Figure 26: How "Other" Addiction Cravings were Affected over the Course of EMDR Therapy



- Cravings decreased over time (felt less addicted) 50%
- Cravings decreased significantly over time (felt significantly less addicted) 22.2%
- Cravings about the same over time (felt just as addicted) 16.7%
- Cravings increased over time (felt more addicted) 5.6%
- I don't remember 5.6%

Included in Figure 27 are the differences in the means of the self-reported level of “other” addictions before receiving EMDR therapy, just after receiving EMDR therapy, and the current level of addiction. There is a clear drop in addiction after EMDR is administered, and these gains are maintained over time. All but three (3) respondents reported that EMDR therapy had some effect on reducing their level of addiction.

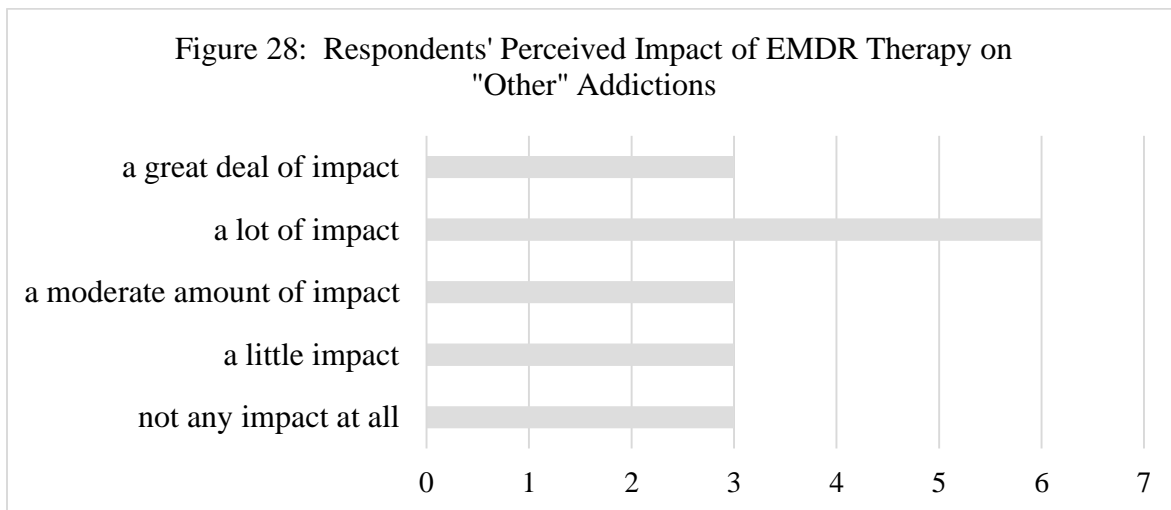
Figure 27: Mean Level of "Other" Addiction



Paired t-tests were performed by Smith College for Social Work's Research Analyst in order to gauge whether or not there was a statistically significant difference in the change of the mean level of the "other" addictions. Survey respondents had been asked to rate their level of addiction to technology before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being 0 "not addicted at all" and 10 being "focused on the addiction to the exclusion of all other things." Initially, the analysis removed those who had checked "0" (not addicted) before receiving EMDR therapy, or 11 (N/A- Not Applicable) from the analysis. Those who had checked "0" were probably people who consider themselves to have the "other" addiction as a something chronic, despite the current lack of felt addiction. Those who had checked "Not Applicable" were most likely still receiving EMDR treatment. Paired t-tests were run with the data from respondents (with the exception of the "0"s and "NA"s), and a significant difference in the mean was found: ( $t(12) = 3.679$ ,  $p = .003$ ), with a beginning mean of 6.92 and an ending mean of 3.69, demonstrating that people felt significantly less addicted to their "other" addiction after receiving EMDR therapy.

I chose to run a second t-test for similar reasons that I ran a second test with the aforementioned addictions. This time, the people who had responded with "N/A" to the level of sex addiction upon terminating EMDR therapy were included in the analysis. Their N/A score was replaced with their current score, or their reported level of addiction "as of today". This meant that I was looking at the scores for most people when they had terminated, and the scores of others when they were still in treatment. The results were as follows: there was a significant difference in the means ( $t(17) = 4.059$ ,  $p = .001$ ) with a beginning mean of 6.67 and an ending (or current) mean of 3.94, again demonstrating that people felt significantly less addicted to their "other" addiction after receiving EMDR therapy.

Figure 28 shows a comparison of respondents' felt sense of the impact that EMDR therapy had on their degree of addiction. In the Figure we can see that nine (9) people of 18 survey respondents answered that EMDR therapy had either "a great deal of impact" or "a lot of impact" on reducing their "other" addiction. An equal number of people in each category (3) felt that EMDR therapy had had a moderate amount of impact, a little impact or not any impact at all on their "other" addiction. One (1) person chose to comment on this experience: "I received 12 hours of therapy in 3 days and this has changed my instinctual responses. I don't have to try, it is automatic."

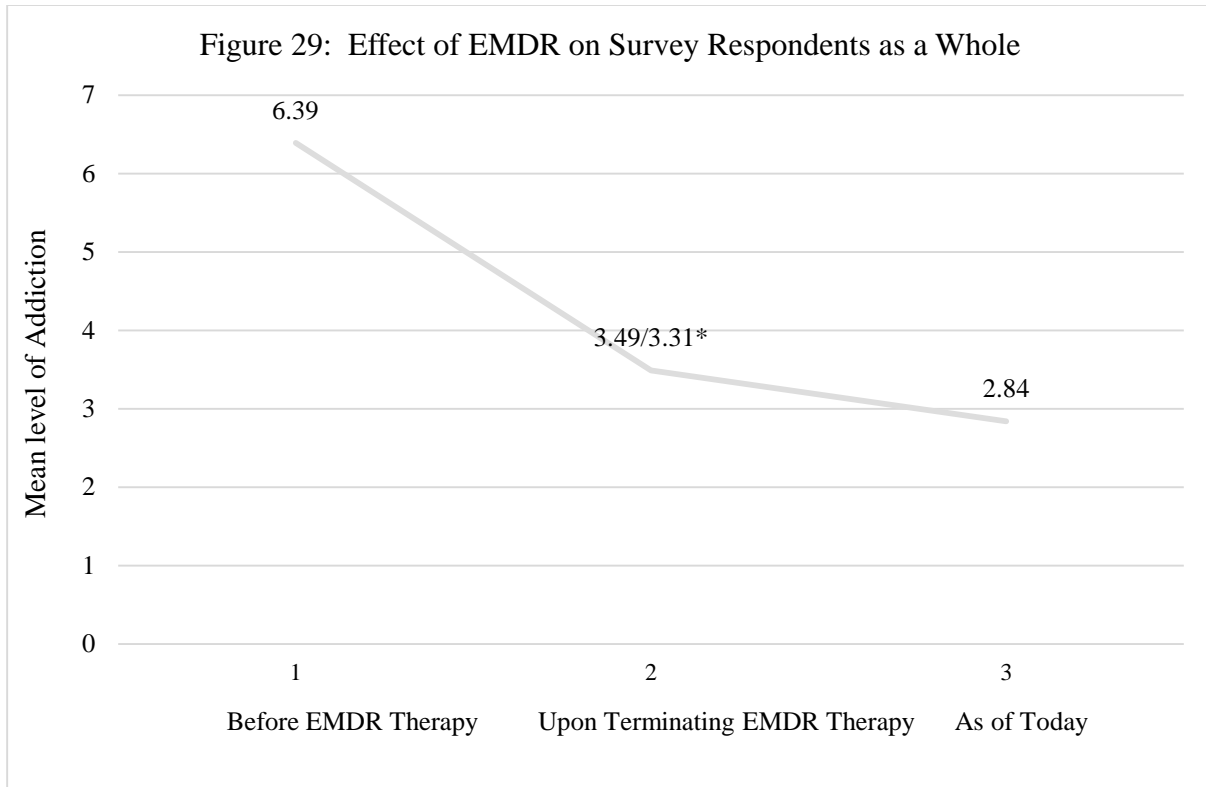


### **Macro Findings: The Effect of EMDR Therapy on Survey Respondents as a Whole**

One last analysis was run in order to determine the overall impact that EMDR had on survey respondents' reported addiction levels, as a whole. That is, the reported scores of all survey participants, for each of the addictions reported, were compiled, and a paired t-test was run to see if there was a difference in their addiction levels before receiving EMDR therapy and upon terminating. A significant difference was found ( $t(55)=9.094$ ,  $p=.000$ , two-tailed).

Figure 29 illustrates how the mean addiction rating before starting EMDR therapy was 6.39, compared to a mean of 3.49 when terminating, demonstrating a significant decrease in the overall level of felt addiction by the end of EMDR treatment.

I also had the data the analyst run a paired t-test to see if there was a difference in the reported addiction levels upon terminating EMDR therapy and the current addiction levels, "as of today." Again, a significant difference was found ( $t(58)=2.579$ ,  $p=.012$ , two-tailed). The mean addiction rating when terminating EMDR therapy was 3.31, compared to a current mean of 2.84 that looks at the felt level addiction "as of today," demonstrating that the decrease in felt addiction that had been obtained by the end of EMDR treatment was not only maintained over time, but continued to drop.



\*The “Upon Terminating EMDR Therapy” means vary because of missing data. Pairs can only be tested if they have a score for both variables. For the first test (before and terminating) there were 56 pairs and for the second test (terminating and current) there were 59 pairs. As a result, the means are slightly different.

### **Components of EMDR Treatment**

In the literature review, several themes arose as potentially important factors that could influence treatment outcomes of EMDR therapy: the feeling of safety in the treatment setting, the felt trust in the EMDR therapist, the number of EMDR sessions conducted for each client, the support available to clients outside of the therapeutic session, and the motivation of the research participant to quit the addiction. In order to determine how different elements affected treatment outcomes for participants, first it was necessary to determine the degree of change in each of the addictions (a change score), in other words, a score that would reveal how much an addiction had increased or decreased since initiating EMDR therapy. The research analyst at Smith College for Social Work created change score variables by subtracting “before EMDR” addiction ratings

from “upon terminating” addiction ratings for each type of addiction. The resulting change score was either negative (the addiction went down), zero (the degree of addiction stayed the same) or positive (the degree of addiction worsened).

### **Comfort in the Therapeutic Setting**

Using the change scores, a Pearson correlation was run to determine if there was an association between the comfort or safety that the survey respondent felt within the therapy setting, or environment in which EMDR was administered (rated on a 0-10 scale) and each change score. No significant correlations were found. However, the analysis had not initially removed those who had checked “0” (not addicted) before receiving EMDR therapy. Those who had checked “0” were probably people who consider themselves to have the technology addiction as a something chronic, despite the current lack of felt addiction. When those people who had marked “0” at the initiation of EMDR therapy were removed from the analysis, there continued to be no significant correlation between treatment outcomes and comfort level in the therapy setting. Tests were run once more, with the intent of including those who had checked “Not Applicable” regarding their addiction level upon termination of EMDR therapy; they were most likely still receiving EMDR, so it seemed important to gauge their addiction change score as well. The change score for these subjects was created with their current score instead of their termination score (which had been N/A). There continued to be no significant correlation with any of the change scores. Essentially, this rules out the potential for the comfort level of the client in the therapy setting to impact EMDR therapy outcomes.

### **Trust in the Therapist**

A Pearson correlation was run to determine if there was an association between the trust that the subject has in his or her EMDR therapist (rated on a 0-10 scale) and each change

score. No significant correlations were found. Again, the analysis had not initially removed those who had checked “0” (not addicted) before receiving EMDR therapy. When those people who had marked “0” at the initiation of EMDR therapy were removed from the analysis, and it was run a second time, a significant negative correlation was found between trust and “other” addiction change ( $r = .587, p = .035$ ). Therefore, for the “other” addictions, as their trust in the therapist went up, their addiction improved. No significant correlations were found with the other addiction change scores. The analysis was run a third time, this time including those who had checked “Not Applicable” regarding their addiction level upon termination of EMDR therapy. The change score for these subjects was created with their current score instead of their termination score (which had been N/A). There continued to be a significant change score only with the “other” addictions ( $p = .553, p = .017$ ). Like comfort level with the therapeutic setting, trust of the therapist doesn’t appear to play a major role in EMDR therapy outcomes, with the exception of treatment of “other” addictions.

### **Perceived Knowledge Level of Therapist**

A Spearman correlation was run to determine if there was an association between the perceived knowledge level of therapist and each change score. A significant positive correlation was found between compulsive eating addiction and therapist experience ( $\rho = .608, p = .002$ , two-tailed). This positive correlation suggests that as the perceived experience of the therapist goes down, the addiction shows less improvement. Therefore, less experience is correlated with less improvement. No significant correlations were found between the other addictions. When those people who had marked “0” at the initiation of EMDR therapy were removed from the analysis, and it was run a second time, the exact same results were found for the compulsive eating addiction. This time however, there was also a significant positive correlation between



“other” addictions and therapist experience ( $\rho = .634$ ,  $p = .027$ , two tailed); therefore, as the perceived knowledge level of the therapist goes down, there is less improvement in the level of addiction. There were no other significant correlations found between knowledge and any of the other addictions. Tests were run once more, with the intent of including those who had checked “Not Applicable” regarding their addiction level upon termination of EMDR therapy. Again, there was only a significant positive correlation with compulsive food addiction at this level of analysis ( $p = .452$ ,  $p = .016$ ).

### **Number of EMDR Sessions Conducted**

A Spearman correlation was run to determine if there was an association between the number of sessions and each change score. There was a significant positive correlation between the alcohol change score and the number of sessions ( $\rho = .444$ ,  $p = .044$ , two-tailed). This suggests that as number of sessions increase, the change score gets higher (the addiction gets worse). There were no significant correlations with any of the other addictions. The analysis was run a second time, removing those who had marked “0” for their addiction level upon starting EMDR therapy. There continued to be a significant positive correlation between the alcohol change score and the number of sessions ( $\rho = .742$ ,  $p = .002$ , two-tailed), but no other significant correlations with any of the other addictions. A final analysis was run, this time including those who had checked “Not Applicable” regarding their addiction level upon termination of EMDR therapy. There continued to just be a significant correlation with alcohol addiction only ( $p = .52$ ,  $p = .019$ ).

### **Number of Supports**

Pearson correlations were also run to see if there were correlations between the number of supports that survey respondents had checked and a change in the addiction score. There was

a significant negative correlation between the eating compulsion addiction change score and supports ( $r=-.418$ ,  $p=.038$ , two-tailed). This suggests that as supports go, up the compulsive eating addiction change score goes down (the addiction lessens). There were no significant correlations with any of the other addictions. The exact same results were found when the Pearson correlation was run a second time, removing those who has identified with an addiction level of “0” before starting EMDR therapy, and when they were run a third time, including those who had checked “Not Applicable” regarding their addiction level upon termination of EMDR therapy.

### **Motivation to Quit**

Motivation was the last of the potentially influential elements of EMDR therapy to be investigated. Pearson tests were run for each of the addictions, but no significant associations were found to exist between motivation to quit and treatment gains for any of the addictions.

### **Conclusion**

None of the characteristics that research participants mentioned in the review of the literature stood out as potential essential components of EMDR therapy for people with addictions. However, social support and the perceived level of experience of the EMDR therapist did correlate with better treatment outcomes for people with compulsive eating addiction. It’s important to mention that while specific characteristics, on their own, do not dictate better outcomes for clients, it is likely that the combination of factors does indeed impact client outcome.

### **Limitations**

This quantitative study had several limitations. The sample size was relatively small for each of the addictions, thus reducing statistical validity. A primary limitation of this study is that

the data gathered from this study is reliant on client memory. One person chose to comment on the difficult nature of recalling such memories: “My EMDR sessions were not about the sex addiction, rather childhood traumas/memories. [It was] kind of hard to answer all other questions, since my EMDR was not about my sexual behaviors.”

Another significant limitation to this study is the fact that people were included in the data set who started EMDR therapy with no addiction or a very low level of addiction (a self-reported degree of addiction of zero (0) or one (1), on a scale from zero to ten (0-10). As one survey respondent commented, “RE: Q25: I wish you had discriminated between ‘addiction’ and ‘active addiction’. For those of us who are ‘old school’ and continue to think of ourselves as ‘addicted’ after decades of abstinence/sobriety, we are likely to respond to your question from a different viewpoint than you intend.” While I included the respondents who had identified as having no addiction at the initiation of EMDR in the frequency data used in creating the figures, I was able to remove them when conducting the statistical tests I intended to include people who hadn’t engaged in their addiction for many years, but who still experienced cravings to use the addictive substance or engage in addictive behaviors. The goal of including these people was to see how EMDR therapy vicariously affected those cravings; the hypothesis was that the cravings would decrease or be eliminated over the course of therapy.. Even though a person may have quit using the addictive substance or stopped engaging in the addictive behavior, it does not mean that the craving to use or to engage with the addiction are no longer present. One person described his or her experience that reflected this: “I was sober 14 years prior to starting EMDR therapy, but the quality of my sobriety was dramatically increased as a result of the EMDR therapy. I would assert that it was a life-changing experience.” By including people who had

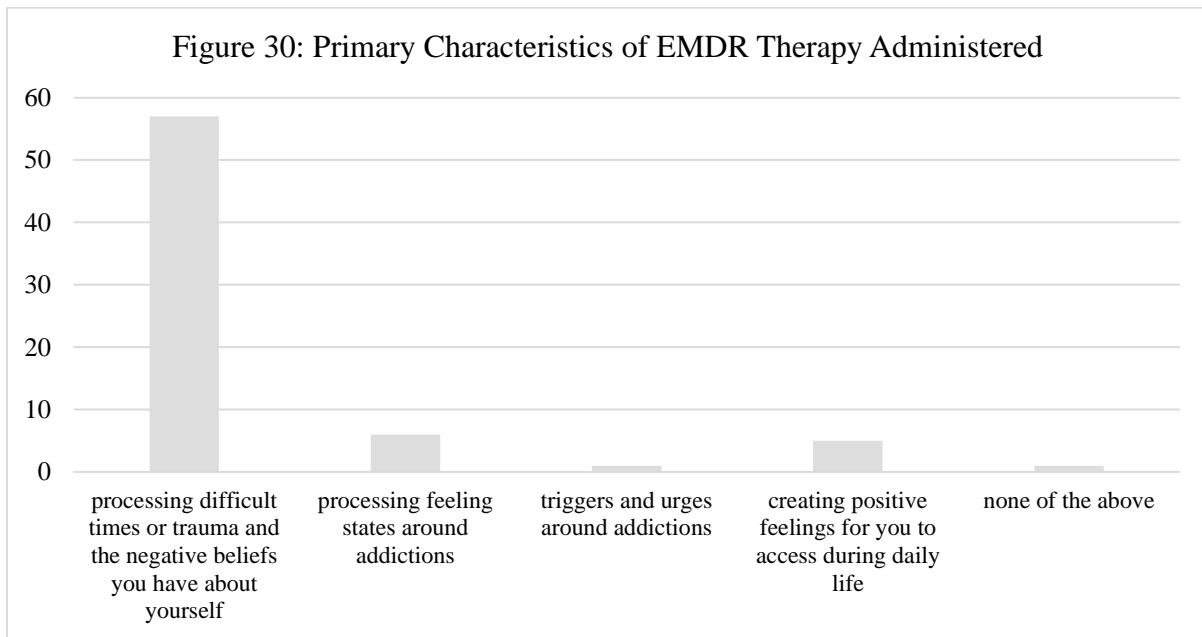
extremely low or no addiction in the data, the impact of EMDR therapy will most likely be less in the results than in actuality.

One subject reported in the comment section that “I quit smoking 5 years before EMDR,” demonstrating that the concerns expressed by the respondent above were relevant. A second participant commented on a similar experience: “I have been a recovering alcoholic for 27 years. My therapist (with whom I started 36 years after getting into AA and after moving from my previous state) first used EMDR to treat the hair pulling/trichotillomania that I had been doing for almost 40 years. It worked. We have since used EMDR on some other family-related emotional issues I have.” It is worth noting that a drop in one point for people who started at a one, two or three level of addiction is statistically significant.

Another limitation of this study is that for the drug addiction segment, all substance use, except for alcohol, was lumped together in the results. It is likely that the effect that EMDR therapy would have on people would vary according to the substance type because of how differently they impact people on a biological level. While this data was not taken into account for the final analysis, the data set would be able provide this information in a future analysis.

A few of the questions on the survey were intended to help discover what kind of EMDR protocol the respondents had been exposed to by asking questions around what the participant perceived to be the focus of therapy. While inferences were made from survey responses, it is impossible to confirm which protocols were actually used with participants. The use of different EMDR protocols could potentially point to very different results. A goal in creating these questions was to be able to make an educated guess around what method had been used, and to discover statistically which protocol had better results. As we can see in Figure 30, most people who participated in the study reported that their EMDR therapy revolved around “processing

difficult times or trauma and the negative beliefs you have about yourself.” Very few people reported having a different focus of EMDR therapy, making it statistically difficult to discover how the results differed for research participants according to the kind of therapy that they were exposed to. There were simply insufficient numbers of people to run the analyses on. Therefore, this study does not add much to the research body in helping to determine which kinds of EMDR have better outcomes for people who have addictions.



A few issues also arose in this project with the analysis of the data. One of the intentions of this study was to convey how addiction levels change over the course of EMDR therapy, and to determine whether or not the results are long-lasting. This data was gathered through the self-report of respondents regarding addiction levels before EMDR therapy, upon terminating EMDR therapy, and as of today. Because 22 of the 72 participants were receiving therapy at the time that they completed the survey, the “as of today” scores for these people were not useful for measuring whether or not the treatment outcomes of EMDR are long lasting. Including the scores of these 22 people in determining the group means for “as of today,” undoubtedly skewed

the data. However, the analysis consistently showed that the addiction level means continue to drop over time after EMDR therapy is terminated. Therefore, the “as of today” means in addiction levels would most likely be even lower than what was reported in the findings, had the people who were still in EMDR therapy been excluded from this part of the analysis.

The final limitation of this study is the potential for bias. Because this survey was distributed through the EMDR International Association’s email list, it is likely that many of the survey respondents were EMDR therapists who practice EMDR because they believe that it contributes to positive treatment outcomes. However, because this study focused on addiction, a treatment focus that many EMDR therapists may avoid because of the lack of research, and the fear of client relapse, respondents may not have been as likely to have a positive bias in favor EMDR therapy. It is worth noting the potential bias that I bring to the study as well. As a registered EMDR therapist who has personally experienced positive treatment outcomes from engaging in EMDR therapy, it highly probable that my perspective on EMDR therapy has found its way into my survey, despite my best intentions to create neutral questions. In addition, my bias undoubtedly has contributed to the findings taking a more positive slant than someone with the opposite experience of myself.

### **Summary**

This study adds to the literature that supports the use of EMDR with people who have both substance and behavioral addictions. EMDR was shown to reduce the degree of addiction, and cravings for the addiction in most people, and these results were maintained over time. Relapse to substance use as a direct result of EMDR therapy was found to be relatively rare, and sobriety before treatment wasn’t shown to be a necessary qualification for positive treatment outcomes. While nothing stood out in this study as a factor that seriously impacts the treatment

outcomes of EMDR therapy, we cannot discount the cumulative effect that these variables have on people when treating addictions. The following section compares and contrasts the relevant findings of this study with the previous research which was discussed in the literature review section of this thesis. It also discusses the implications of the findings for social work practice, and suggests areas for the further research that emerged during data collection that were beyond the scope of this thesis.

## **CHAPTER 5**

### **Discussion**

This chapter will look at how the findings of this study correspond to the research that has already looked at the effect that EMDR therapy has on people who have addictions. The primary research questions of this study were: (a) how effective EMDR is in helping clients to lessen or end their cycle of SUDs and behavioral addictions in the long term (b) whether or not EMDR therapy increases a client's likelihood of relapse, and whether or not relapse affects the outcome of treatment, (c) whether or not clients need to have abstained from the addictive substance for an extended period of time in order for EMDR therapy to be successful in addictions treatment and (d) whether or not there is a correlation between proposed key components of EMDR treatment and more positive treatment outcomes. In this study, EMDR was shown to reduce the degree of both behavioral and SUD addiction, as well as cravings for addictions in most people; these results were maintained over time. Sobriety before treatment wasn't shown to be a necessary qualification for positive treatment outcomes, and relapse to substance use as a direct result of EMDR therapy was found to be relatively rare and inconsequential to treatment outcomes.

I investigated the themes that had come up in the literature as potentially important factors that could influence treatment outcomes of EMDR therapy; a few of these themes proved to be statistically significant. For people who struggle with a compulsive eating addiction, results showed a negative correlation between addiction levels and therapist experience: as



therapist experience increased, the eating compulsion decreased. The same was found for the “other” addictions. There was also a significant negative correlation found between the amount of social support and positive outcomes: as social support increased, the eating compulsion decreased. A higher degree of trust in one’s therapist was associated with better outcomes for those who have “other” addictions. Most surprisingly, there was a significant correlation between alcohol addiction and the number of EMDR sessions administered; as the number of sessions increased, the addiction got worse. Neither of the other components of EMDR treatment that were studied (comfort with the therapeutic setting or motivation to quit the addiction) emerged as significantly impacting treatment outcomes.

The first section of this chapter will contrast what the literature says about how effective EMDR is in helping clients to lessen or end their cycle of SUDs and behavioral addictions, both in the short and long term, with the results of this study. The section that follows will look specifically at substance use addictions and contrast what the literature says about relapse and abstinence to the results of this study. Next, the factors that emerged in the literature which appear to influence the treatment outcomes of EMDR therapy will be compared to the findings of this study. The implications of this research for social work and theory will then be analyzed, followed by a section recommending future research for the field of EMDR therapy and addictions work.

## **The Effect that EMDR Therapy has on Addictive Behaviors and SUDs**

### **Substance Use Disorders**

The few studies that have been done on the effect of EMDR on SUDs all point to positive outcomes (Marich, 2009; Marich, 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). Nine out of ten participants in Marich's (2010) study reported that EMDR interventions lead directly to changes in their behaviors associated with their SUDs. Research participants in Rougemont-Bucking and Zimmerman's study (2012) both experienced a decrease in drug consumption while one of the participants experienced a significant decrease in cravings and consumption. The participant in Marich's (2009) study also reached and maintained alcohol sobriety as an outcome of EMDR therapy. The research subject in Abel and O'Brien's study (2010) attributed her ability to stop using alcohol as rooted in being exposed to the Standard EMDR Protocol. Finally, Hase, Schallmayer, and Sack (2008) conducted a study providing evidence that similar results could be produced with a larger, randomized sample of 34 participants. Subjects in their study experienced a significant decrease in cravings for alcohol post EMDR treatment.

The findings of this study provide further evidence documenting the effectiveness of EMDR therapy in treating people who have SUDs. Cravings for alcohol either decreased or significantly decreased in 60.7% of the people who reported being addicted to alcohol at the initiation of EMDR therapy. Eighty point nine-three percent (80.93%) of survey respondents who reported having a drug addiction at the initiation of EMDR therapy experienced either a decrease or a significant decrease in their drug cravings. Furthermore, this study also found a statistically significant drop in the mean alcohol addiction and the mean drug addiction after the implementation of EMDR therapy.

All of the studies that were reviewed for this study regarding the impact of EMDR therapy on SUDs, explicitly discuss the duration of treatment outcomes. Marich's (2010) subjects had to have six months pass since their last EMDR session and Marich's (2009) subject was also interviewed six months post treatment; all of the participants in these studies had maintained sobriety. In addition, the research participant from Abel and O'Brien's (2010) study had maintained sobriety for two years at the time of their writing. Each of these case studies provides evidence that the treatment outcomes of EMDR are of duration.

Hase, Schallmayer, and Sack (2008) reviewed their results at one month and six months post treatment. While their participants had not all maintained sobriety, those who had received EMDR therapy in addition to Treatment as Usual (TAU) had relapsed far fewer times than the TAU control group; this difference between groups was statistically significant at the one-month and six-month follow up. The Hase, Schallmayer, and Sack (2008) study lends further evidence to the possibility that EMDR is not only a potentially more effective treatment for helping people to overcome their addictions than typical treatment programs, but that the effects are also long-lasting. What must be taken into consideration is that the people in this study were only exposed to two sessions of EMDR, and that the sample size was greater than the other aforementioned studies combined.

Rougemont-Bucking and Zimmerman (2012) also followed-up on the two participants in their case study. One of the participants whose drug consumption had remained low right up to the termination of his EMDR therapy (which ended only because the therapist was leaving on sabbatical), was reevaluated after 14 months. The subject reported that he had been able to remain abstinent from heroine for four months after ending treatment, but had then resumed his habitual consumption of one or two heroin sniffs a month. The second participant resumed his

EMDR therapy (after having had it end prematurely) after a 13 month break. This subject had experienced a “considerable decrease in craving and consumption throughout the therapeutic process” (p. 114). Upon reinitiating EMDR therapy, his craving score was once more elevated, but he quickly was able to stabilize his drug use and craving to a low level. Unlike the aforementioned studies (Marich, 2009; Marich, 2010; Abel & O’Brien, 2010; Hase, Schallmayer, & Sack, 2008), the Rougemont-Bucking and Zimmerman (2012) study does not provide evidence supporting the idea that treatment outcomes of EMDR are long-lasting. However, the severity and longevity of both the addiction and psychological diagnosis of both people in this study should be taken into consideration when considering the treatment outcomes. Given the extreme degree of psychological distress and addiction of each of the clients, the EMDR therapy that was provided was simply not long enough to produce lasting sobriety.

In this study, respondents were asked to report their level of drug and alcohol addiction before starting EMDR therapy, upon terminating EMDR therapy, and as of today on a scale from 0 to 10, with 0 being “not addicted at all” and 10 being “focused exclusively on alcohol/drugs; health could be at risk.” The mean scores for “as of today” provide a tool to evaluate whether or not the outcomes from EMDR therapy are long-lasting. The majority of subjects in this study either maintained the lower level of addiction that was achieved by the end of EMDR therapy or saw their addiction level further decrease over time; this can be seen in Figure 5 for alcohol addiction and in Figure 10 for drug addiction. There was a decrease in the group means for both alcohol and drug addiction which maintained itself, and even continued to drop slightly after treatment had been terminated. The one issue with the recorded mean outcomes of EMDR therapy in this study is that not all people had terminated their EMDR therapy when they reported their “as of today” addiction scores. Therefore, the “as of today” means are not totally

accurate in their representation of whether or not the treatment outcomes of EMDR are long lasting; approximately a third of the participants were reporting scores while they were still in treatment, while the remaining people were reporting their addiction levels after EMDR had terminated. The most logical implication for this fact, given the favorable outcomes of EMDR therapy in this study, is that the longevity of results could be artificially elevated. Even so, the results of this study add to the evidence that EMDR therapy maintains its treatment outcomes over time.

### **Behavioral Addictions**

The few studies that have been done on the effect of EMDR on behavioral addictions all point to positive outcomes (Bae & Kim, 2012; Cox & Howard, 2007; Miller, 2012). In Miller's (2012) study, clients who were struggling with sex addiction, gambling compulsion, and socialization compulsion (in addition to two other behavioral compulsions), completely eliminated their compulsive behaviors. Cox and Howard's (2007) research participant, who was diagnosed with a sex addiction, experienced significant gains in relapse prevention. Bae and Kim's (2012) case study on a client with Internet Addiction Disorder (a technology addiction), was able to limit his time to an hour a day. The subject also reported that the time that he thought about or craved playing a game had reduced significantly.

The findings of my study provide further support that demonstrates the effectiveness of EMDR therapy in treating behavioral addictions. Like Miller's (2012) and Cox and Howard's (2007) study participants who experienced either a reduction or complete elimination of their sex addiction, the majority subjects in this study (87.5%) experienced either a decrease or a significant decrease in cravings for their sex addiction over the course of EMDR therapy.

Furthermore, my research also found a statistically significant drop in the mean sex addiction after the implementation of EMDR therapy.

Similar to Bae & Kim's (2012) study on technology addiction in which the research subject was able to limit his addiction to one hour a day, 66.7% of research participants who had technology addictions in my study believe that their addiction cravings either decreased or significantly decreased over the course of treatment (33.3% felt just as addicted to technology by the end of therapy). In addition, there was a statistically significant drop in the mean technology addiction after the implementation of EMDR therapy.

The research findings in my study also parallel the results of Miller's (2012) case study regarding gambling addiction. While there was only one person in both Miller's (2012) study and this study that had experienced a gambling addiction at the initiation of EMDR therapy, both participants experienced a complete elimination of their gambling addiction by the end of treatment.

My research went further in the investigation of other addictive behaviors. I found that 67.8% of survey respondents experienced a decrease in their cravings to eat compulsively over the course of EMDR therapy (10.7% felt that their compulsion increased). Additionally, 72.2% of people who reported that they had another kind of addiction felt that the cravings to engage in that addiction had either decreased or decreased significantly over the course of treatment (5.6% reported that they felt more addicted over time). Furthermore, statistically, a significant difference was found in the drop of the mean addiction for *all* of the behavioral addictions, with the exception of gambling addiction (which couldn't be tested because there was only one participant).

Both Miller (2012) and Cox and Howard (2007) did not perform follow-ups to their research; Cox and Howard were still performing EMDR on their client at the time the case study was published. In contrast, Bae and Kim (2012) did a follow-up on their participants at one year, at which point this research subject had completely eliminated the technology addiction that he had had at the start of the study.

Participants in my study were asked questions about their behavioral addictions both before, during, and after EMDR therapy, approximating a longitudinal study design. Respondents were asked to report their level of addiction on a scale from 0 to 10, with 0 being some variation of “not addicted at all” and 10 being some variation of “your life revolves entirely around your addiction.” The majority of subjects in this study either maintained the lower level of addiction that was achieved by the end of EMDR therapy or saw their addiction level further decrease over time; this can be seen in Figure 15 on eating compulsion, Figure 19 on sex addiction, and Figure 26 on other addictions. There was decrease of the group means for each behavioral addiction, with the exception of the technology addiction (Figure 23), which revealed a very slight increase in the group mean addiction level at follow-up. As was discussed in the findings of the previous chapter, it is likely that this rise is not representative of an actual increase in felt addiction, but an indication that only five (5) of the nine (9) participants had ended their EMDR therapy “as of today”, and the numbers of those subjects had not been included in the “upon ending EMDR” mean.

### **Implications for Relapse and Abstinence**

According to Rougemont-Bucking & Zimmerman (2012), the “refusal of psychotherapy in severely addicted SD [Substance Disorder] patients is based on a plethora of clinical observations dictating that a psychiatric patient has to be stabilized before she or he can enter a

psychotherapeutic, typically somewhat confronting setting” (p. 108), even though there is no scientific evidence to support this exclusion of individuals who present with active substance abuse. This section will look at how abstinence and relapse, or the lack thereof, impacted subjects in studies that have already been done, and contrast this information with what was found in my research.

The subject in Marich’s (2009) study had never been able to obtain more than four months of sobriety at a time. She had been diagnosed with alcohol dependence, cannabis dependence, sedative dependence and PTSD. A primary focus of her treatment was to remain abstinent. The client in this study was three months sober when she commenced EMDR therapy. She was deemed sufficiently stable and had “good access to sober support” (p. 101). At follow-up, six months post EMDR therapy termination, the subject had been sober for a year and a half. The results of this case study show that, at least in some cases, EMDR can be implemented early on in sobriety with highly successful results. Relapse was not an issue for this participant.

The participants in Marich’s (2010) study began their EMDR treatment anywhere from one month to two years into sobriety. The facility where the treatment was done took an individualized philosophy to treatment, and only started those on EMDR who presented as ready. Each of the ten participants reported from one to six years of continuous sobriety. Given that some of the participants had not been sober for much time when they began EMDR therapy, Marich’s (2010) study provides some evidence that EMDR can be implemented early on in sobriety. However, Marich (2010) did not discuss whether or not her study participants experienced relapse over the course of receiving EMDR therapy. Again, it should be noted that participants were only started on EMDR when they were considered “ready” for treatment, indicating that these participants had some level of stability.



In Able and O'Brien's (2010) case study, the research participant had not been sober upon the initiation of treatment; "she was drinking significant amounts of alcohol on an almost daily basis, and presented with symptoms consistent with the diagnosis of PTSD and Alcohol Dependence [APA, 1994]" (p. 53). However, because she was not "physically dependent" on alcohol, it was considered safe to provide her with outpatient treatment. Over the first two months of EMDR therapy, the subject continued to relapse, despite her high level of motivation to quit. The research participant was finally able to reach the capacity to remain sober in between sessions after having been exposed to the trauma protocol during the two sessions prior. The participant was able to maintain sobriety over the following six months of EMDR therapy, until being triggered by interactions with her family. This incident was followed with treatment focused on the Addiction Memory, a protocol developed by Hase (2008). The client had maintained sobriety up until the publishing of the article, two years later. Thus, the O'Brien (2010) study provides further evidence that EMDR therapy can be administered before sobriety has been reached, and demonstrates that relapse doesn't necessarily have a negative impact on treatment outcomes. In fact, it could potentially be a normal part of the process in reaching sobriety.

The Rougemont-Bucking & Zimmerman (2012) case studies provide further support for the idea that EMDR can be used on clients who have not reached sobriety. Both of the clients in the study continued to use drugs throughout their time in treatment, and both were triggered by EMDR sessions into using drugs after therapy. At the same time, both of them also experienced a decrease in that very drug consumption, a decrease that correlated with the implementation of EMDR therapy. Again, this study demonstrates how relapse does not necessarily impact treatment outcomes negatively; rather, it is potentially a natural part of the progression of

reaching sobriety. It should be noted, however, that the drug use of the clients had been habitual coping mechanisms that did not expose them to unusually high levels of health risk. This kind of drug use, well-managed coping strategies, did not pose a real risk to destabilizing either client, even in the event of relapse. In addition, these clients were provided with a case manager who was able to address psychosocial issues that the clients were dealing with. According to Rougemont-Bucking and Zimmerman (2012), it is mandatory to “address the many problems of SD patients in the medical, economical and relational domains prior to proposing EMDR therapy, or other kinds of integrative psychotherapy.

The Hase, Schallmayer, and Sack (2008) lends further evidence to the possibility that the implementation of EMDR can be effective for people with addictions, even before sobriety has been reached for an extended period of time. Participants in their study were normally under the influence of alcohol upon admittance to the in-patient hospital. The stay at the hospital was approximately two weeks, and two EMDR sessions were administered during the research participants’ time there. Therefore, EMDR treatment was administered without any significant period of sobriety. Because the subjects who received EMDR therapy in addition to Treatment as Usual (TAU) relapsed far fewer times than the TAU control group, this study also demonstrates that EMDR therapy is more helpful than harmful in treating people with addictions.

Essentially the research to date has shown that it is not necessary for clients to have a minimum time-period of sobriety before being treated with EMDR (Marich, 2009; Marich, 2010; Abel & O’Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). Either clients who were exposed to EMDR therapy were able to reach a period of sobriety that they hadn’t been able to attain before, or their drug use and relapse decreased over time, corresponding with their exposure to EMDR therapy. A few of the researchers were explicit

about how the clients in their studies, some of who were still using or relapsing to the addictive substances, had a certain level of stability; even if they were using an addictive substance, they were considered habitual coping strategies and the clients were “functional” in their substance use (Marich 2009; Marich 2010; Rougemont-Bucking & Zimmerman, 2012). Abel and O’Brien’s (2010) participant was employed full-time as a professional, but drank a significant amount of alcohol almost daily. Hase, Schallmayer, & Sack’s (2008) study was the only one which did not refer to a client’s level of stability before engaging in EMDR therapy. The very fact the subjects in their study were in a two to three week in-patient treatment program points to the possibility that at least some of these clients were not stable. Even so, there was a significant improvement in the TAU + EMDR treatment group in comparison to the TAU group. This brings into question whether or not the “stability” of the client that the other researchers talk about (Marich 2009; Marich 2010; Rougemont-Bucking & Zimmerman, 2012; Abel and O’Brien, 2010), is actually all that necessary, at least for clients who have access to real support as in an in-patient hospital setting.

The results of my study parallel the research on addictions that have been conducted to date. Sixty point seven percent (60.7%) of survey respondents with an alcohol addiction and 80.93% of survey respondents with a drug addiction either experienced a decrease or significant decrease in their alcohol or drug cravings over the course of EMDR therapy. These results were obtained even without having achieved sobriety: Eleven people had engaged in drinking alcohol less than two weeks before initiating EMDR therapy, and nine people had engaged in drug use less than two weeks before initiating EMDR therapy. Therefore, the results of my research provide further evidence that sobriety is not a necessary qualification in order for EMDR therapy to provide positive treatment outcomes for people with addictions. Moreover, cravings for

alcohol or drugs most frequently decreased immediately following EMDR even though some people experienced an elevated sense of craving for the drug or alcohol after sessions. Despite the fact 11% of respondents reported that they had consumed alcohol as a direct result of being triggered from an EMDR session, and 9.5% of respondents reported that they had consumed drugs as a direct result of being triggered from an EMDR session, there were no negative long-term effects reported for either people group. In fact, the opposite was true: either their cravings decreased over time, or they were just the same over time. Furthermore, there was a statistically significant drop in the mean addiction for both people with alcohol and drug addictions. The results of my research are consistent with the literature which demonstrates that EMDR therapy can be of great benefit to people who are trying to end their cycles of alcohol and drug addictions. Additionally, therapists need not be frightened of triggering their clients into relapse that as a result of EMDR therapy sessions; not only is relapse rare, but people are less likely to relapse from EMDR than they would be from Treatment as Usual.

### **Macro Findings: Effectiveness of EMDR as a Whole**

The overall effectiveness of EMDR therapy on individuals with any kind of addiction was also analyzed, revealing results that are consistent with the research that has shown EMDR to be effective with a variety of addictions (Bae & Kim, 2012; Cox & Howard, 2007; Miller, 2012; Marich, 2009; Marich, 2010; Abel & O'Brien, 2010; Rougemont-Bucking & Zimmerman, 2012; Hase, Schallmayer, & Sack, 2008). However, unlike the former studies that only look at the effect that EMDR therapy has on a specific behavioral *or* substance use addiction, this study also combines the results to look at the impact that EMDR has on addictive behaviors and SUDs, in combination, as a group, as a whole. The results are impressive, as there is a significant drop in the research participants' mean felt sense of addiction, and this drop in is

maintained over time. This data provides further evidence supporting the use of EMDR therapy with people who struggle with any kind of addiction, be it behavioral or substance related.

### **Essential Components of EMDR Therapy**

The final research question that my study aimed to address was whether or not there are certain elements of therapy that contribute to positive outcomes of EMDR therapy. Marich (2009; 2010) highlighted several themes that came out in her studies which research participants had described as key to their ability to heal and overcome their addictions: safety, and “assessing the emotional core”, lifestyle change, the combination of factors for successful treatment, “addiction recovery as a life or death matter,” all of which she considered worthy of further research. In order to test the generalizability of the themes that emerged from her studies, I investigated a few of their aspects which I felt could be translated well into a survey: safety (comfort in the therapeutic setting and trust in the EMDR therapist), the level of motivation to quit, and the use of a combination of factors for successful treatment (support). I wondered if how knowledgeable the therapist appears to be in EMDR could also impact the level of trust in the therapist, and therefore the outcome of therapy. Therefore, I chose to measure client perception of therapist knowledge. Additionally, I noticed that in the review of the literature, a wide number of EMDR therapy protocols had been used, and I wanted to see if it would be possible to figure out what kind of EMDR the survey respondents had been exposed to and whether any particular protocols corresponded with better results. The number of EMDR sessions that were administered in each of the studies was also vastly different. Therefore, I also hoped to decipher whether or not an elevated number of EMDR sessions corresponded with better outcomes in treatment.

## **Safety**

Each of the participants in Marich's (2010) study, Marich's (2009) study and Abel and O'Brien's (2010) study discussed the important role that safety played in their treatment outcomes. Research subjects referred to both the safety that was felt with the EMDR therapist, and the felt safety in the treatment facility (or the environment in which they were receiving therapy).

**Comfort with the Therapeutic Setting.** Seven of the participants in Marich's (2010) study cited the feeling of safety in the environment where they received therapy as significant to their healing. The felt sense of safety primarily came from the progressive nature of the facility, the optimism that the staff communicated to them about their potential for healing, and being surrounded by other clients with similar histories.

In my study, clients were asked to rate their level of feeling safe and comfortable in the setting in which they received EMDR. A statistical analysis was conducted to gauge whether or not the felt sense of comfort plays a significant role in the outcome of therapy. I found that there were no significant correlations with any of the change scores that were divided up by addiction type. Essentially, the results of this study contradict what was discovered in Marich's (2010) study. This is not to say that a clients' level of comfort in the therapeutic setting is not important, but perhaps the degree to which it influences client outcomes is not as significant as clients felt it to be in Marich's (2010) study.

**Comfort with the Therapist.** Three studies discussed the importance of the subjects' felt safety with their therapist in contributing to positive treatment outcomes (Marich, 2009; Marich 2010; Abel & O'Brien, 2010). The subject in Marich's (2009) study expressed that the relationship of

trust that she had with her therapist, who was also a recovering female, was “critical to the success of therapy” (p. 103). The research participant in Abel and O’Brien’s case study had a strong therapeutic alliance with her therapist. The therapist was able to create a solid sense of safety for this person; she “trusted that the therapist would be her ally in the process” (p. 57). The subjects in Marich’s (2010) study also cited the importance safety in their positive treatment outcomes, and specifically of the safety in the therapeutic relationship. It was important for them to feel like they were in capable hands along with feeling sure that they would not “be attacked or belittled” which could close them off to the work that needed to be done. In fact, two clients in this study attributed their positive results to having switched EMDR therapists, as they had been unable to establish that sense of safety with the original therapists.

When a statistical analysis was run to discover whether there was a significant correlation between the comfort level with the EMDR therapist and positive treatment outcomes, only one addiction type showed a correlation: “other” addictions. Because there was no significant correlation found with any of the other addiction types, it seems likely that this correlation was simply due to chance. Essentially, my analysis fails to support the idea that the clients’ level of comfort with their therapist is of utmost importance for positive treatment outcomes (Marich, 2009; Marich 2010, Able & O’Brien, 2010).

My original hypothesis was that how knowledgeable one’s therapist appears to be in administering EMDR therapy could impact the level of trust in the therapist, which in turn, would affect one’s treatment outcomes. This hypothesis was measured by first asking clients to gauge what they perceived their EMDR therapist’s skill to be in administering EMDR. Next, this perception score was correlated with participant change in level of addiction scores. A positive correlation was found with both compulsive food addiction and “other” addictions.

Since therapist trust came out as significantly important for those people who had compulsive eating addictions, it is not surprising that the perceived knowledge level of the therapist was also an important factor for these people. It's likely that the less qualified they believed their therapist to be, the less the clients were able to trust their therapists. Another possibility is that the less qualified that research subjects believed their therapist to be, the less qualified their therapists actually were; perhaps unskilled therapists produced less change in their clients' addictions. However, if this were true, one would expect there to be consistent results for all of the kinds of addictions.

Another significant positive correlation was found between perceived therapist knowledge and "other" addictions. Therefore, as the EMDR therapist's perceived knowledge went up, the addiction level went down. Again, this could mean that as the actual skill level of the therapist went up, there were better results for clients. It could also mean that as the perceived skill level went up, clients trusted their therapists more, and therefore were able to have more successful treatment outcomes.

### **Motivation**

All ten women in Marich's (2010) study cited motivation as being an important factor that contributed to their capacity to overcome their addictions. "Nancy," the subject in Marich's (2009) study, attributed her ability to heal to a combination of factors, two of which are related to motivation: "seeing addiction as a life-or-death matter" (p. 103), and her willingness to change. The client in Abel and O'Brien's (2010) study was also described as "extremely motivated" to address her addiction.

My study investigated the importance of motivation in obtaining positive treatment outcomes by asking research participants to gauge their level of motivation upon starting EMDR



therapy and correlating this with change scores. No significant correlation was found, thus failing to confirm the prior research. Again, this doesn't necessarily mean that motivation does not play a role in people's ability to overcome their addictions; it could potentially mean that it doesn't play as important of a role in treatment outcomes as was believed in the aforementioned studies (Marich, 2009; Marich 2010; Abel & O'Brien, 2010).

## **Support**

In Marich's (2009; 2010) research, it was indicated that EMDR should not be used in isolation, or as the only treatment intervention for addictions. Participants in her studies reported that groups or other forms of support were key elements which, in combination with EMDR, lead to their recovery. This support took the form of treatment program groups, classes and services, or 12-step recovery meetings. Abel and O'Brien's (2010) subject also made good use of Alcoholics Anonymous as a means of support through her therapy. Clients in Hase, Schallmayer & Sack's (2008) study received addiction-focused group therapy, relaxation and art therapy in addition to being surrounded in an in-patient program, by people like themselves, who were working towards being addiction-free. Finally, Bae & Kim's (2012) participant most likely had the support of his mother, who had brought him to therapy to begin with, to deal with his Internet Addiction Disorder (IAD). It is also mentioned that this adolescent started playing soccer after school as an alternative to engaging in his IAD. Rougemont-Bucking and Zimmerman's (2012) participants also had additional support that may have played significant roles in their healing processes. Each of their subjects was also assigned a case manager who assisted them with psychosocial supportive treatment. The rest of the studies that were reviewed did not mention support as a part of their subjects' process in addressing their addictions.

Because the aforementioned studies found a client's support system to be paramount in overcoming one's addiction, I chose to investigate how support correlates to positive treatment outcomes in my study. Only one noteworthy correlation was found: there was a strong positive correlation with compulsive food consumption; that is, as the number of supports increased for subjects, their eating addiction decreased. Therefore, the results of my study do not support the literature that highlights the importance of support for clients who are in treatment. Perhaps clients and therapists are giving more importance to support systems than they warrant. On the other hand, because support does correlate with positive outcomes for people who have compulsive eating addictions, it could be particularly important to encourage clients with eating disorders to focus on their relationships and in finding group support as a key piece of their treatment plans.

### **Kind of EMDR Therapy Administered**

In the literature that was reviewed on EMDR and addictions, there was an array of EMDR protocols that were used. Several different EMDR protocols have been developed to treat clients with addictive disorders; all of them use desensitization in order to reduce the triggering of addictive behaviors. The following section includes an abbreviated description of the protocols that were used in the most recent studies on people with addictions.

The Desensitization of Triggers and Urge Reprocessing (DeTUR) protocol developed by Popky (2005), is aimed at reinforcing positive coping skills. It focuses on a Positive Treatment Goal in which a client creates an image of what life would look like either without the addictive behavior, or with a reduction in the behavior. Once this internal resource is developed, the triggers for the client's addictive behavior are desensitized.

Hase, Schallmayer, and Sack (2008) created a protocol, based on Hase's (2006) earlier work that was later named the CravEx Protocol. This protocol targets the "addiction memory (AM)," such as the times that it was used, a relapse or a craving, in treatment. Because this protocol targets and processes memories, treatment tends to channel back to the original reason that the addiction came to fruition; this is very similar to the Standard EMDR Protocol. However, instead of measuring Subjective Units of Stress (SUDS), as in the Standard EMDR Protocol, this protocol measures the Level of Urge (LOU) to engage in the addictive behavior.

The Feeling-State Addiction Protocol (FSAP) is another modified version of the Standard EMDR Protocol. In this protocol, the Feeling State (FS) is the target for processing in therapy. The FS is made up of the desired feeling and a behavior fixated with that feeling. Once the Feeling States associated with the addictive behavior have been processed, the therapist and client work together to figure out what negative beliefs are associated with them. Next, the desired positive beliefs are determined. Essentially, from this point, the negative beliefs are processed and the positive beliefs are installed into the present and future.

### **EMDR Protocols Administered**

The participant in Abel and O'Brien's (2010) study was exposed to a combination of protocols. The initial treatment began with resourcing the client with a Safe Place exercise, which is typical to use when initiating the Standard EMDR Protocol. Resource Development (Korn & Leeds, 2002 as cited by Abel & O'Brien, 2012) was also used to help the client to develop ego strength to maintain a sober lifestyle. The next piece of treatment implemented part of the DeTUR protocol, installing the positive treatment goal. Eventually, the Standard EMDR Protocol was implemented in order to process a primary traumatic event. And finally, The Hase

Protocol (2006) was used a few times to desensitize cravings after ongoing sobriety had been reached.

Bae and Kim (2012) only used the DeTUR protocol with their research subject. Marich (2009), used the Standard EMDR Protocol to address the clients' addictive behaviors, while Marich (2010) only references EMDR in her study. It is unclear whether or not subjects in her 2010 study were exposed to a variety of EMDR protocols. Cox and Howard (2007) used only the Standard EMDR protocol to treat their research subject, while Hase, Schallmayer, and Sack (2008) used the German version of the EMDR Institute Manual (Shapiro & Hofmann, 1994) as well as a version of Hase's (2006) protocol, which targets memories of relapse or intense craving (AM). Rougemont-Bucking & Zimmerman (2012) used the constant installation of present orientation and safety (CIPOS) technique (Knipe, 2010), "safe place" exercises and wedging techniques for several months before the full Standard EMDR Protocol was administered with the research subjects for trauma processing. Finally, Miller (2010) used the Feeling State Addiction Protocol on his research participants.

Because there was such diversity in the EMDR protocols that have been administered in the studies on EMDR and addiction, it was my hope to discover through my research whether or not any particular EMDR approach or protocol produces better results for this demographic. In order to decipher what kind of EMDR protocol the survey respondents had been exposed to, I asked them what their EMDR therapist typically focuses on: a) processing difficult times or traumas and the negative beliefs that you have about yourself b) processing the feeling states that you have around your addiction c) triggers and urges regarding your addictions d) creating positive feeling states for you to access during daily life and e) I don't remember. Eighty-one percent (81%) of the respondents of my survey reported that their therapists primarily focused on

“processing difficult times or traumas and the negative beliefs that you have about yourself.”

There were far too few people who answered differently to run a statistical analysis on whether any of the other focuses of therapy correlated with better treatment outcomes. However, because 81% of the people were most likely being exposed to the Standard EMDR Protocol, and because the majority of treatment outcomes were successful, this lends evidence to the idea that it is not necessary for EMDR therapists to learn and administer a special EMDR protocol in order to work with behavioral and substance use addictions.

### **Number of Sessions**

The number of sessions that participants were exposed to varied tremendously from study to study. Abel and O’Brien’s (2010) subject was exposed to on-going EMDR therapy over a period of two years. Marich’s (2009) study participant completed 15 sessions of EMDR therapy over a nine-month period. It was unclear how many sessions of EMDR therapy Marich’s (2010) subjects were exposed to, although it was reported that the average length of stay in the program was 29 months. Thus, it seems likely that EMDR treatment was extensive for most research participants. Cox and Howard’s (2007) research subject had participated in 15 sessions of EMDR therapy at the time of the article’s publication. Hase, Schallmayer, and Sack (2008) exposed their subjects to only two, one-hour sessions of EMDR therapy. The subjects in Rougemont-Bucking and Zimmerman’s (2012) studies were only exposed to a few trauma processing sessions in which the full EMDR Standard Protocol was administered, even though they were exposed to many months of sessions in the preparation phase of the EMDR Standard Protocol. Bae and Kim’s (2012) research subject was only administered four sessions of the DeTUR protocol. The subjects in Miller’s (2012) study were subjected to a very different timeline of implementation: the complete intervention for one addictive behavior was performed

over a two week period (participants had two compulsions). Furthermore, the number of sessions for each participant varied between 23 and 30 in that short time-span.

In conducting research, I had hoped to discover whether the number of sessions implemented has any correlation to better treatment outcomes. Because I have experienced positive treatment outcomes with my own clients when implementing EMDR, my hypothesis going into this project was that the more EMDR sessions implemented, the better outcomes clients would have. Interestingly enough, the only significant correlation that was found between number of sessions and treatment outcomes was with alcohol. There was a significant positive correlation with alcohol addiction; that is, as the number of sessions increased, the addiction got worse. This information appears to contradict the other findings of this study which found that people's cravings for alcohol either decreased over time, or were about the same over time. It would seem that if alcohol addiction increases with the implementation more sessions of EMDR, the cravings would also increase over time.

### **Summary**

The findings of my study mostly coincide with the research that has already been conducted regarding EMDR therapy and addictions treatment. It adds evidence to the research body which demonstrates that EMDR therapy reduces the degree of both behavioral addictions and SUDs (if not eliminating them all together), as well as cravings for addictions in most people, and that these results are maintained over time. My research also coincided with the findings of prior investigations regarding sobriety and relapse, lending more evidence that sobriety before treatment isn't a necessary qualification for positive treatment outcomes. It further confirms that relapse to substance use as a direct result of EMDR therapy is relatively rare and inconsequential to treatment outcomes. Moreover, this research demonstrates that it is

not necessary to implement an EMDR protocol that is specific to addictions treatment in order to have positive outcomes for clients.

With the exception of a few correlations that were found, none of the “essential elements” of EMDR therapy proved to be as important as they had been reported in the review of the literature. While none of them stand out as crucial on their own, it seems likely that in combination, they do have a significant impact on EMDR therapy outcomes.

### **Implications for Social Work**

Unresolved trauma often plays a significant role in thwarting an addicted individual’s attempts to reach sobriety or to gain control over their addiction (Zweben & Yeary, 2006); In fact, “many clients may never get clean and sober unless some of the emotional charge is taken out of their traumatic past” (p. 121). EMDR’s clinical efficiency and practicality are unmatched when looking at the results of its implementation with a wide range of trauma populations (Zweben and Yeary (2006). My study confirms the potential that EMDR has to be established as an evidence-based practice for people who have addictions, as well. Given the current political climate that gives undue preference to “evidence-based treatments,” it has become even more important for therapeutic models to obtain the label as such in order to receive coverage from insurance carriers. Community health centers, and thus the low-income populations that they serve, are at the mercy of these regulations. While people who are privileged financially can seek out EMDR therapy to work on recovery from their addictions, low-income people are only able to access these services when they are covered by Medicaid or through the Affordable Care Act. Mental health therapists in the social work profession undoubtedly find themselves working with people who have a dual diagnosis. Therefore, it is of utmost importance to establish the therapeutic models that do work for people with addictions, as “evidence based” so that social

workers can provide their clients with the most appropriate care. It is my hope that this study will move EMDR further along in acquiring this label.

### **Recommendation for Further Research**

It was my hope that this study would reach out to a much larger population of people who had struggled with addictions and also experienced EMDR therapy. While 72 survey respondents is a respectable number of research participants, when divided up among the various addictions that each person experienced, there were no more than 32 people per addiction type to be researched. Had there been no time restrictions on this project, I would have been able to follow up with the people who were emailed the original survey, potentially expanding the numbers of people who responded, thereby increasing the external validity of this research project. Future research could increase the number of survey respondents by sending out more waves of the survey, reaching out to EMDR therapists on a more personal level, and by potentially offering some sort of incentive for survey completion.

After reviewing the literature and conducting my own research, it seems likely there is little to lose and much to be gained from implementing EMDR with addicted populations, as long as the clients have achieved stabilization in their “daily life problems” (Rougemont-Bucking & Zimmerman, 2012, p. 108). EMDR treatment does not increase the likelihood of relapse, and relapse in itself doesn’t correlate with worse treatment outcomes. Because research participants have progressed quickly in relatively short time-spans (Hase, Schallmayer, and Sack, 2008; Bae & Kim, 2012; Miller, 2012), I would like to see further research done at a drug and alcohol rehabilitation, in-patient facility. Ideally, clients would receive EMDR therapy (90 minute sessions) on a daily basis over their stay at the facility, which could range from one to two months, in addition to Treatment as Usual (TAU). These clients could be compared to a



control, TAU group that would not include EMDR therapy. The TAU plus EMDR group would have the opportunity to process emotionally charged material without risking destabilization in their lives due to the residential nature of the program. It is my hypothesis that given the time to process traumatic events, negative cognitions, as well as triggers and feeling states associated with using drugs or alcohol, clients could potentially eliminate their addictive cravings and triggers altogether. Even so, it is a given that clients would need on-going support upon leaving their treatment facilities. While cravings and triggers may have settled, old relationships and habits remain; entire lives need to be shifted in order to move away from an addicted lifestyle. Nevertheless, future research may come to show that some people may be able to put the terminal sentence and label of “recovering addict” to rest if they are persistent in seeking out new relationships, hobbies, and lifestyles after intensive treatment, no small task for anyone.

### **Conclusion**

It is important to remember that addiction has been classified as a “disease” for a reason. Addiction can be conceptualized as a “disease of brain reward centers that ensure the survival of organisms and species” (Dackis & O’Brien, 2005, p. 1431). Drug euphoria promotes the repeated use of the substance, especially for people who are genetically predisposed; these people experience an exaggerated endorphin pleasure response. Addictive drugs essentially take over the brain circuits that correlate with rational thought, leading to one’s loss of control of impulses. Furthermore, there is evidence that the psychological state of “denial” is associated with “drug-induced dysfunction of the prefrontal cortex” (p. 1431), the center of the brain that is in charge of rational decision making and using logic.

Despite this biological basis for addiction, afflicted individuals are often unrightfully discriminated against, as society has conceptualized addiction as a “character flaw (for example,

addictive personality), [rather] than a brain disease” (Dackis & O’Brien, 2005, p. 1431).

Addictions clash with cultural values of stoicism and self- control. Because the public sees addiction as more of a social problem than an actual disease, the infrastructure to treat people with addictions is lacking compared with the treatment for other medical illnesses (Dackis & O’Brien, 2005). It is of paramount importance that public policy change in accordance with the research that demonstrates that neurologically, people are not to blame for their addictions. EMDR presents a potential cure for this disease, opening up the possibility that people can actually lose their compulsive urge to engage in their addiction, neurologically rewiring their brain through the processing of emotionally charged material. Clearly, public acceptance of the disease concept of addiction has to precede the public investment of resources into research for the effective treatment of addiction.

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Appendix A  
Institutional Review Board Approval Letter



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**School for Social Work**

Smith College  
Northampton, Massachusetts 01063  
T (413) 585-7950 F (413) 585-7994

February 20, 2015

Jennifer Lynn Franklin

Dear JLynn,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

*Please note the following requirements:*

**Consent Forms:** All subjects should be given a copy of the consent form.

**Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.

Co-Chair, Human Subjects Review Committee

CC: Robert Eschmann, Research Advisor



Appendix B  
Informed Consent

**Consent to Participate in a Research Study**  
**Smith College School for Social Work • Northampton, MA**

.....

**Title of Study:** EMDR and Clients with Addictions: Key Factors that Promote Positive Treatment

Outcomes

**Investigator(s):**

Jennifer Franklin, Smith College for Social Work MSW Candidate, (XXX) XXX-XXXX

.....

**Introduction**

- You are being asked to be in a research study to broaden the research base on how EMDR therapy impacts people who have addictive behaviors. If you meet the criteria to participate in this survey, you will have self-identified as having had, or as currently having an addictive behavior. Addictive behavior here is defined as engaging in a behavior or substance use which has had more control over you than you would have liked. Examples of addictive behaviors for the purpose of this study (not an exclusive list) are nail biting, smoking, compulsive exercising, alcohol addiction, compulsive shopping, drug addiction, compulsive eating, sex addiction, technology addiction, and gambling addiction.
- You were selected as a possible participant because of your connection to The Eye Movement Desensitization and Reprocessing International Association (EMDRIA) and may have been a participant in EMDR therapy.
- We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

**Purpose of Study**

- The purpose of the study is to explore the effect that Eye Movement Desensitization and Reprocessing (EMDR) therapy has on people who have had Substance Use Disorders (SUDs) and behavioral addictions.
- This study is being conducted as a research requirement for my master's in social work degree.
- Ultimately, this research may be published or presented at professional conferences.

**Description of the Study Procedures**

- If you agree to be in this study, you will be asked to do the following: participate in a multiple choice survey that asks questions about your experience with your EMDR therapy. Questions will be asked about behavioral addictions that range from nail biting and compulsive food consumption to drug addiction, and how they may or may not have been impacted by EMDR therapy. The survey will take between 5 and 20 minutes, depending on how many addictive behaviors you have experienced in your lifetime.

### **Risks/Discomforts of Being in this Study**

- The study has the following risks: There is a small possibility that reflection on your addictive behaviors could cause you some emotional discomfort.
- If you feel uncomfortable or distressed from taking the survey and would like to talk with someone, there is a 24-hour free and confidential helpline that provides referrals and information about mental health and substance use disorders in English and Spanish. SAMHSA's National Helpline can be reached at 1-800-662-HELP (4357) or 1-800-487-4889.

### **Benefits of Being in the Study**

- The benefits of participation in this study are the potential to gain insight into how your addictive behaviors may have shifted over your lifetime and how EMDR therapy may or may not have impacted that movement.
- The benefits to social work/society are that EMDR therapy can potentially be evaluated for its effectiveness in treating addictive behaviors in the long-term. In addition, this study may reveal what components of EMDR therapy contribute to the best treatment outcomes for clients with addictive behaviors.

### **Confidentiality**

- This study is anonymous. We will not be collecting or retaining any information about your identity.
- All research materials related to the survey will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.

### **Payments/gift**

- You will not receive any financial payment for your participation.

### **Right to Refuse or Withdraw**

- The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any* simply without affecting your relationship with the researchers of this study or Smith College; simply exit the survey. You have the right not to answer any single question, as well as to withdraw from the survey at any time.

### **Right to Ask Questions and Report Concerns**

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Jennifer Franklin at [jlfranklin@smith.edu](mailto:jlfranklin@smith.edu) or by telephone at (XXX) XXX-XXXX. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

**Consent**

- Clicking on the “yes” button below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. Please print a copy of this informed consent for your records.

Appendix C  
Protocol Change Request

**RESEARCH PROJECT CHANGE OF PROTOCOL FORM – School for Social Work**

You are presently the researcher on the following *approved* research project by the Human Subjects Committee (HSR) of Smith College School for Social Work:

**The Effectiveness of EMDR Therapy on Clients with Addictions**

**Jennifer Franklin**

**Research Advisor's/Doctoral Committee Chair Name**

.....**Rob Eschmann**.....

I am requesting changes to the study protocols, as they were originally approved by the HSR Committee of Smith College School for Social Work. These changes are as follows:

[DESCRIBE ALL PROTOCOL CHANGES BEING PROPOSED IN NUMERIC SEQUENCE; BE BRIEF AND SPECIFIC]

I would like to use the attached flier to advertise my survey. Therapists have requested a flier to distribute their clients.

I would also like to be able to post the same flier information to the Smith College for Social Work Face Book page so that I can access more therapists who can distribute the survey.

.....  
 I understand that these proposed changes in protocol will be reviewed by the Committee.

I also understand that any proposed changes in protocol being requested in this form cannot be implemented until they have been fully approved by the HSR Committee.

I have discussed these changes with my Research Advisor and he/she has approved them.

Your signature below indicates that you have read and understood the information provided above.

**Signature of Researcher:**           **Jennifer Franklin**          

**Name of Researcher (PLEASE PRINT):**           **Jennifer Franklin**           **Date:**           **4/2/2015**          

PLEASE RETURN THIS SIGNED & COMPLETED FORM TO Laura Wyman at [LWyman@smith.edu](mailto:LWyman@smith.edu) or to Lilly Hall Room 115.

***\*\*\*Include your Research Advisor/Doctoral Committee Chair in the 'cc'. Once the Advisor/Chair writes acknowledging and approving this change, the Committee review will be initiated.***

.....

Appendix D  
Recruitment Flier/Facebook Posting

Have you ever felt addicted to a substance or behavior such as: nail biting, smoking, exercising, alcohol, shopping, drugs, eating, sex, technology or gambling?

Have you ever received Eye Movement Desensitization and Reprocessing (EMDR) therapy?

If you meet the above criteria and agree to participate in this study, please do so by responding to the short survey, accessed by clicking on the following link:

<https://www.surveymonkey.com/s/N962MW7>

Appendix E  
Protocol Change Request Acceptance letter



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School for Social Work  
Smith College  
Northampton, Massachusetts 01063  
T (413) 585-7950 F (413) 585-7994

April 3, 2015

JLynn Franklin

Dear JLynn,

I have reviewed your amendments and they look fine. These amendments to your study are therefore approved. Thank you and best of luck with your project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Rob Eschmann, Research Advisor

Appendix F  
Regression Table

Table 1: Results of paired t-tests comparing rates of addiction before EMDR and upon terminating EMDR<sup>1</sup>

	Mean	<i>n</i>	<i>t</i>	DF	<i>p</i>
<b>Alcohol addiction</b>					
Before EMDR	5.60	20	4.183	19	.001 <sup>3</sup>
Upon terminating EMDR	3.00	20			
<b>Drug addiction</b>					
Before EMDR	6.67	15	3.953	14	.001 <sup>3</sup>
Upon terminating EMDR	3.33	15			
<b>Compulsive food addiction</b>					
Before EMDR	6.28	29	5.419	28	.000 <sup>3</sup>
Upon terminating EMDR	3.76	29			
<b>Sex addiction</b>					
Before EMDR	6.54	13	6.121	12	.000 <sup>3</sup>
Upon terminating EMDR	4.08	13			
<b>Technology addiction</b>					
Before EMDR	6.89	9	3.357	8	.010 <sup>3</sup>
Upon terminating EMDR					
<b>Gambling addiction</b>					
Before EMDR	2.00	1 <sup>2</sup>			
Upon terminating EMDR	0.00	1 <sup>2</sup>			
<b>Other addiction</b>					
Before EMDR	6.67	18	4.059	17	.001 <sup>3</sup>
Upon terminating EMDR	3.94	18			

	Mean	<i>n</i>	<i>t</i>	DF	<i>p</i>
<b>Combined addictions</b>					
Before EMDR	6.3863	56	9.094	55	.000 <sup>3</sup>
Upon terminating EMDR	3.4872	56			

<sup>1</sup>If participant was still receiving EMDR therapy at the time the survey was conducted, the current level of addiction score replaced their “upon termination” of EMDR score.

<sup>2</sup> Statistics not computed due to  $n = 1$ .

<sup>3</sup> Significant at the .01 level



Appendix G  
Measuring Instrument (Survey)

**Welcome to my Survey!**

**Thank you for your interest in participating in this survey! Your feedback is very important. Please answer the following three questions to determine your eligibility to participate.**

**Experience with Addictive Behaviors and EMDR Therapy**

*\* 1. Are you 18 years of age or older?*

Yes  
No

*\* 2. Have you ever received EMDR therapy?*

Yes  
  
No  
  
Not Sure

*\* 3. Have you ever struggled with an addictive behavior? Addictive behavior here is defined as engaging with a behavior or substance which has had more control over you than you would have liked. Often, the behavior or substance use continues despite negative consequences. Examples of addictive behaviors (not an exclusive list) are compulsive nail biting, smoking, compulsive exercising, alcohol addiction, compulsive shopping, drug addiction, compulsive eating, sex addiction, technology addiction, and gambling addiction.*

Yes  
No

## **Informed Consent**

### **Consent to Participate in a Research Study**

Smith College School for Social Work • Northampton, MA

Title of Study: EMDR and Clients with Addictions: Key Factors that Promote Positive

Treatment Outcomes Investigator(s): Jennifer Franklin, Smith College for Social Work MSW

Candidate, (XXX) XXX-XXXX

### **Introduction**

. You are being asked to be in a research study to broaden the research base on how EMDR therapy impacts people who have addictive behaviors. If you meet the criteria to participate in this survey, you will have self-identified as having had, or as currently having an addictive behavior. Addictive behavior here is defined as engaging in a behavior or substance use which has had more control over you than you would have liked. Examples of addictive behaviors for the purpose of this study (not an exclusive list) are nail biting, smoking, compulsive exercising, alcohol addiction, compulsive shopping, drug addiction, compulsive eating, sex addiction, technology addiction, and gambling addiction.

. You were selected as a possible participant because of your connection to The Eye Movement and Desensitization and Reprocessing International Association (EMDRIA) and may have been a participant in EMDR therapy.

. We ask that you read this form before agreeing to be in the study.

### **Purpose of Study**

. The purpose of the study is to explore the effect that Eye Movement Desensitization and Reprocessing (EMDR) therapy has on people who have had Substance Use Disorders (SUDs) and behavioral addictions.

This study is being conducted as a research requirement for my master's in social work degree. Ultimately, this research may be published or presented at professional conferences.

### **Description of the Study Procedures**

If you agree to be in this study, you will be asked to do the following: participate in a multiple choice survey that asks questions about your experience with your EMDR therapy. Questions will be asked about behavioral addictions that range from nail biting and compulsive food consumption to drug addiction, and how they may or may not have been impacted by EMDR therapy. The survey will take between 5 and 20 minutes, depending on how many addictive behaviors you have experienced in your lifetime.

### **Risks/Discomforts of Being in this Study**

The study has the following risks: There is a small possibility that reflection on your addictive behaviors could cause you some emotional discomfort.

If you feel uncomfortable or distressed from taking the survey and would like to talk with someone, there is a 24-hour free and confidential helpline that provides referrals and information about mental health and substance use disorders in English and Spanish. SAMHSA's National Helpline can be reached at:  
1-800-662-HELP (4357) or 1-800-487-4889.

### **Benefits of Being in the Study**

The benefits of participation in this study are the potential to gain insight into how your addictive behaviors may have shifted over your lifetime and how EMDR therapy may or may not have impacted that movement.

The benefits to social work/society are that EMDR therapy can potentially be evaluated for its effectiveness in treating addictive behaviors in the long-term. In addition, this study may reveal what components of EMDR therapy contribute to the best treatment outcomes for clients with addictive behaviors.

#### **\* 4. Right to Refuse or Withdraw**

· The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time without affecting your relationship with the researchers of this study or Smith College; simply exit the survey. You have the right not to answer any single question, as well as to withdraw from the survey at any time.

#### **Right to Ask Questions and Report Concerns**

· You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Jennifer Franklin at [jlfranklin@smith.edu](mailto:jlfranklin@smith.edu) or by telephone at (XXX) XXX-XXXX. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

#### **Consent**

· Clicking on the “yes” button below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. Please print a copy of this informed consent for your records.

Yes

No

## Demographics

5. What is your age?

18 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65 to 74

75 or older

6. *Which race/ethnicity best describes you? (Please choose only one.)*

American Indian or Alaskan Native Asian / Pacific Islander

Black or African American Hispanic American

White / Caucasian Multiple ethnicity / Other

7. *What is your gender identity?*

Female Male

Not Sure

Other (please specify)

## **Therapist Training and EMDR Implementation**

8. *On a scale from 0 to 10, where 0 is not feeling safe or comfortable at all, and 10 is feeling very safe and comfortable, how would you rate the setting in which you received EMDR?*

0 - not safe or comfortable at all

1

2

3

4

5

6

7

8

9

10 - very safe and comfortable

9. On a scale from 0 to 10, where 0 is not able to trust your therapist at all and 10 is feeling like you can totally trust your therapist, how would you rate your relationship with your EMDR therapist?

0 - I don't trust my EMDR therapist at all.

1

2

3

4

5

6

7

8

9

10 - I completely trust my EMDR therapist.

10. How knowledgeable and experienced do you believe your therapist was in using EMDR?

Expert - knowledgeable, uses with confidence, EMDR is often used as the primary mode to implement therapy

Skilled - knowledgeable, uses with confidence, uses EMDR often, but not as the primary mode of implementing therapy

Experimenting - knowledgeable, uses EMDR occasionally

Novice - recently trained, knowledgeable but inexperienced, uses EMDR frequently in session

Novice - recently trained, demonstrates gaps in knowledge, inexperienced, uses EMDR on occasion in session

Forced - it doesn't feel like the therapist's preferred method of therapy

11. *Please estimate the number of EMDR sessions that you have experienced in your lifetime.*

1 to 5

6 to 15

16 to 30

More than 30

12. *When receiving EMDR therapy, does/did your therapist primarily focus on:*

processing difficult times or traumas and the negative beliefs that you have about yourself?

processing the feeling states that you have around your addictions?

triggers and urges regarding your addictions?

creating positive feeling states for you to access during daily life?

I don't remember.

none of the above

13. *How long has it been since your most recent session with your EMDR therapist?*

I am currently receiving EMDR therapy.

Less than three months. I am not currently receiving EMDR therapy.

At least 3 months, but less than 6 months

At least six months, but less than a year



At least one year but less than two years

More than two years.

14. *What supports do you/did you have in place at the time of EMDR therapy?*

- Community Support Group
- Family/Friends
- Classes Regarding Addictions
- Residential Treatment Facility
- Judicial System Involvement
- None of the Above

**Alcohol Addiction Question**

- *Have you ever struggled with an alcohol addiction? Addiction here is defined as wanting to use less or to quit using, but not being capable of achieving this goal.*

Yes

No

**Alcohol Addiction**

15. *How long had you experienced feeling addicted to alcohol before starting EMDR therapy?*

Less than 6 months

At least 6 months but less than 1 year

At least 1 year but less than 3 years

At least 3 years but less than 5 years

5 years or more

16. *How many times had you tried to use less alcohol or to quit using alcohol before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

17. *When you began EMDR therapy, how long had it been since you drank alcohol?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years More than two years

18. *Is/Was using less alcohol or quitting the use of alcohol a goal or direct focus of your EMDR therapy?*

Yes

No

I don't remember

19. *When you started EMDR therapy, how motivated were you to use less or to quit using alcohol on a scale from 0 to 10, with 0 being not NOT motivated to quit or use less, and 10 being extremely motivated to quit or use less?*

0 - NOT motivated to quit or use less

1

2

3

4

5 - Neutral

6

7

8

9

10 - Extremely motivated to quit or use less

20. *In general, how were your cravings for alcohol affected in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

21. *Do you remember consuming alcohol as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

22. *Have you ever missed work or missed out on something important to you as a direct result of a drinking relapse that you experienced because of an EMDR therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

23. *In general, how have your cravings for consuming alcohol been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.

24. *AT THESE DIFFERENT POINTS IN TIME How would you rate your addiction to alcohol on a scale from 0 to 10, where 0 is not addicted at all and 10 is you are focused exclusively on alcohol and your health could be at risk (addicted).*

Before Starting EMDR therapy  
Upon Terminating EMDR therapy  
As of Today

25. *How much impact do you believe EMDR therapy has had on your ability to overcome your alcohol addiction?*

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all

**Question on Drug Addiction**

26. *Have you struggled with drug addiction, excluding alcohol (i.e. nicotine, marijuana, opioids, stimulants, etc.)? Addiction is defined here as wanting to use less or to quit using, but not being capable of achieving this goal.*

Yes

No

**Compulsive food consumption question**

27. *Have you struggled with compulsive food consumption? Compulsion is defined here as wanting to consume less, but not being capable of achieving this goal.*

Yes

No

**Sex addiction question**

28. *Have you struggled with a sex addiction? Addiction is defined here as wanting to be less consumed with the idea of or having sex, but not being capable of achieving this goal.*

Yes

No

**Question on technology addiction**

29. *Have you struggled with a technology addiction (i.e. compulsive use of the internet, video games, TV, etc.)? Addiction is defined here as wanting to use the technology less, but not being capable of achieving this goal.*

Yes

No

**Gambling addiction question**

30. *Have you struggled with a gambling addiction? Addiction is defined here as wanting to gamble less, but not being capable of achieving this goal.*

Yes

No

**Other addiction question**

31. *Have you struggled with another kind of addiction (i.e. any behavior you would have liked to quit, but didn't seem to be able to control, such as nail biting, compulsive exercising, shopping, etc.)?*

Yes

No

## **Drug Addiction**

*32. What kind of drug addiction do/did you have?*

nicotine

marijuana/hashish

heroin

opium

cocaine

Amphetamine (i.e. speed and uppers)

Methamphetamine (i.e. crank, meth, crystal) MDMA (i.e. ecstasy, clarity)

PCP

LSD/mushrooms inhalants

prescription medications

Other (please specify)

*33. How long had you experienced a drug addiction before starting EMDR therapy?*

Less than 6 months

At least 6 months but less than 1 year At least 1 year but less than 3 years At

least 3 years but less than 5 years 5 years or more

34. *How many times had you tried to use less or to quit using drugs before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

35. *When you began EMDR therapy, how long had it been since you had used drugs?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years

More than two years

36. *Is/Was using less or quitting the use of drugs a goal of your EMDR therapy?*

Yes

No

I don't remember

37. *When you started EMDR therapy, how motivated were you to use less or to quit using drugs on a scale from 0 to 10, with 0 being NOT motivated to quit, and 10 being extremely motivated?*

0 - NOT motivated to quit or use less

1



2

3

4

6

7

8

9

10 - Extremely motivated to quit or use less

*38. In general, how were your cravings for drugs affected in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

*39. Do you remember consuming drugs as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

I don't remember.

*40. Have you ever missed work or missed out on something important to you as a direct result of a drug use relapse that you experienced because of an EMDR*

*therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

*41. In general, how have your cravings for consuming drugs been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time.

(I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.

*42. AT THESE DIFFERENT POINTS IN TIME How would you rate your addiction to drugs on a scale from 0 to 10, where 0 is not addicted at all and 10 is you are focused exclusively on drugs and your health could be at risk (addicted).*

Before Starting EMDR therapy  
Upon Terminating EMDR therapy  
As of Today

*43. How much impact do you believe EMDR therapy has had on your ability to overcome your drug addiction?*

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all

### **Compulsive Eating Behavior**

*44. How many times had you tried to address your compulsive eating before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

*45. When you began EMDR therapy, how long had it been since you had consumed compulsively?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years

More than two years

I don't remember

46. *Is/Was learning to manage your compulsive eating a goal of your EMDR therapy?*

Yes

No

I don't remember

47. *When you started EMDR therapy, how motivated were you to stop engaging in your addictive behaviors around food, on a scale from 0 to 10, with 0 being NOT motivated to stop, and 10 being extremely motivated to stop?*

48. *In general, how were your cravings for food affected in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions. My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

49. *Do you remember consuming food compulsively as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

I don't remember.

50. *Have you ever missed work or missed out on something important to you as a direct result of being triggered into engaging in your food addiction because an EMDR therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

51. *In general, how have your cravings for food been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy). I don't remember.

52. *AT THESE DIFFERENT POINTS IN TIME, how would you rate your compulsion to eat on a scale from 0 to 10, where 0 is not addicted at all and 10 is your eating is so compulsive that your life revolves entirely around your addiction?*

Before Starting EMDR therapy

Upon Terminating EMDR therapy

As of Today

*53. How much impact do you believe EMDR therapy has had on your ability to overcome your compulsion to eat?*

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all

**Sex Addiction**

54. *How long had you experienced sex addiction before starting EMDR therapy?*

Less than 6 months

At least 6 months but less than 1 year

At least 1 year but less than 3 years

At least 3 years but less than 5 years

5 years or more

55. *How many times had you tried to address your sex addiction before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

56. *When you began EMDR therapy, how long had it been since you engaged in addictive sexual behavior?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years

More than two years

57. *Is/Was learning to manage your sex addiction a goal of your EMDR therapy?*

Yes

No

I don't remember

58. *When you started EMDR therapy, how motivated were you to stop engaging in your addictive behaviors around sex, on a scale from 0 to 10, with 0 being NOT motivated to stop, and 10 being extremely motivated to stop?*

59. *In general, how were your cravings for sex affected in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

60. *Do you remember engaging in sexual behaviors in an addictive manner as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

I don't remember



61. *Have you ever missed work or missed out on something important to you as a direct result of being triggered into engaging in your sex addiction because of an EMDR therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

62. *In general, how have your cravings for sex been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.

*63. AT THESE DIFFERENT POINTS IN TIME, how would you rate your addiction to sex on a scale from 0 to 10, where 0 is not addicted at all and 10 is you are so addicted that your life revolves entirely around your addiction?*

Before Starting EMDR therapy  
Upon Terminating EMDR therapy  
As of Today

*64. How much impact do you believe EMDR therapy has had on your ability to overcome your sex addiction?*

A great deal of impact

A lot of impact

A moderate amount of impact A little impact

Not any impact at all

*65. How long had you experienced technology addiction before starting EMDR therapy?*

Less than 6 months

At least 6 months but less than 1 year

At least 1 year but less than 3 years

At least 3 years but less than 5 years

5 years or more

66. *How many times had you tried to address your technology addiction before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

67. *When you began EMDR therapy, how long had it been since you approached technology in an addictive manner?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years

More than two years

68. *Is/Was learning to manage your technology addiction a goal of your EMDR therapy?*

Yes

No

I don't remember

69. *When you started EMDR therapy, how motivated were you to stop engaging in your addictive behaviors around technology, on a scale from 0 to 10, with 0 being NOT motivated to stop, and 10 being extremely motivated to stop?*

70. *In general, how were your cravings for engaging with technology in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and

sometimes were neutral after EMDR sessions.

I don't remember.

71. *Do you remember engaging with technology in an addictive manner as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

I don't remember

*72. Have you ever missed work or missed out on something important to you as a direct result of being triggered into engaging in your technology addiction because an EMDR therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

*73. In general, how have your cravings to engage with technology been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.

*74. AT THESE DIFFERENT POINTS IN TIME, how would you rate your addiction to technology on a scale from 0 to 10, where 0 is not addicted at all and 10 is your life revolves entirely around your addiction?*

Before Starting EMDR therapy  
Upon Terminating EMDR therapy  
As of Today

*75. How much impact do you believe EMDR therapy has had on your ability to overcome your technology addiction?*

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all

### **Gambling Addiction**

*76. How long had you experienced gambling addiction before starting EMDR therapy?*

Less than 6 months

At least 6 months but less than 1 year

At least 1 year but less than 3 years

At least 3 years but less than 5 years

5 years or more

*77. How many times had you tried to address your gambling addiction before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

*78. When you began EMDR therapy, how long had it been since you had engaged in addictive gambling behavior?*

At least 2 weeks, but less than 1 month At least 1 month but less than 6 months

At least 6 months but less than 12 months More than a year but less than two years

More than two years

*79. Is/Was learning to manage your gambling addiction a goal of your EMDR therapy?*

Yes

No

I don't remember

*80. When you started EMDR therapy, how motivated were you to stop engaging addictive gambling behaviors, on a scale from 0 to 10, with 0 being NOT motivated to stop, and 10 being extremely motivated to stop?*

*81. In general, how were your cravings for engaging in gambling in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

*82. Do you remember gambling in an addictive manner as a direct result of being triggered or activated from an EMDR session with your therapist? If so, please comment on your experience.*

Yes

No

Comment

*83. In general, how have your cravings to gamble been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.



84. AT THESE DIFFERENT POINTS IN TIME, how would you rate your addiction to gambling on a scale from 0 to 10, where 0 is not addicted at all and 10 is you are so addicted that your life revolves entirely around your addiction?

Before Starting EMDR therapy  
Upon Terminating EMDR therapy  
As of Today

85. How much impact do you believe EMDR therapy has had on your ability to overcome your gambling addiction?

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all

86.

**“Other” Addiction**

87. How would you name your "other" addiction?

88. How long had you experienced this addiction before starting EMDR therapy?

Less than 6 months

At least 6 months but less than 1 year

At least 1 year but less than 3 years

At least 3 years but less than 5 years

5 years or more

89. *How many times had you tried to address this specific addiction before starting EMDR therapy?*

0

1 - 2

3 - 5

More than 5

90. *When you began EMDR therapy, how long had it been since you engaged in this addictive behavior?*

Less than 2 weeks

At least 2 weeks, but less than 1 month

At least 1 month but less than 6 months

At least 6 months but less than 12 months

More than a year but less than two years

More than two years

91. *Is/Was learning to manage this specific addiction a goal of your EMDR therapy?*

Yes

No

I don't remember

92. *When you started EMDR therapy, how motivated were you to stop engaging in this specific addictive behavior, on a scale from 0 to 10, with 0 being NOT motivated to stop, and 10 being extremely motivated to stop?*

93. *In general, how were your cravings for engaging in this specific addictive behavior in the hours and days IMMEDIATELY FOLLOWING EMDR sessions with your therapist?*

My cravings INCREASED after EMDR sessions.

My cravings DECREASED after EMDR sessions.

My cravings were about the SAME before and after EMDR sessions.

My cravings SOMETIMES increased, SOMETIMES decreased, and sometimes were neutral after EMDR sessions.

I don't remember.

94. *Do you remember engaging in this specific addictive behavior as a direct result of being triggered or activated from an EMDR session with your therapist?*

Yes

No

I don't remember.

95. *Have you ever missed work or missed out on something important to you as a direct result of being triggered into your specific addictive behavior by an EMDR therapy session? If "yes," please comment on this experience.*

Yes

No

Comment

*96. In general, how have your cravings to engage in this specific addictive behavior been impacted OVER THE COURSE OF THERAPY as a result of EMDR sessions with your therapist?*

My cravings INCREASED over time. (I felt more addicted).

My cravings INCREASED SIGNIFICANTLY over time. (I felt significantly more addicted).

My cravings DECREASED over time. (I felt less addicted).

My cravings DECREASED SIGNIFICANTLY over time. (I felt a lot less addicted).

My cravings were about the SAME over time. (I felt just as addicted as I was at the start of EMDR therapy).

I don't remember.

*97. AT THESE DIFFERENT POINTS IN TIME, how would you rate this specific addiction on a scale from 0 to 10, where 0 is not addicted at all and 10 is you are so addicted that you focused on it to the exclusion of all other things?*

Before Starting EMDR therapy

Upon Terminating EMDR therapy

As of Today

*98. How much impact do you believe EMDR therapy has had on your ability to overcome your specific addiction?*

A great deal of impact

A lot of impact

A moderate amount of impact

A little impact

Not any impact at all