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Strengths-based treatment of substance use disorders: a critical analysis of the literature

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Graduate School of Education and Psychology

STRENGTHS-BASED TREATMENT OF SUBSTANCE USE DISORDERS:

A CRITICAL ANALYSIS OF THE LITERATURE

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Psychology

by

Jennifer A. Berg

October, 2016

Amy Tuttle, Ph. D. – Dissertation Chairperson

This clinical dissertation, written by

Jennifer A Berg

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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DEDICATION

To my husband, Gaetano and my family.

ACKNOWLEDGEMENTS

I would like to acknowledge and thank those who have helped me throughout this long and difficult journey. First, I would like to thank my dissertation chair, Dr. Amy Tuttle for her invaluable guidance, support, and encouragement. She was a tremendous source of wisdom and insight and gave generously of her time and energy. I would also like to thank my committee members, Dr. Carrie Castaneda-Sound and Dr. Natasha Thapar-Olmos for sharing their time and knowledge and for challenging me to think critically about culturally competent treatment.

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VITA
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Bachelor of Arts in Psychology
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- Conducted intake interviews and completed bio-psycho-social assessments with
  adult and adolescent clients suffering from a range of psychological and emotional disorders including substance use disorders, eating disorders, depression, anxiety, schizophrenia, ADHD, axis II disorders, PTSD, and co-morbid psychiatric disorders
- Scheduled and conducted individual, couples, and family therapy sessions and participated in bio/neuro-feedback treatment sessions for clients
- Developed syllabus and facilitated group therapy sessions implementing the following treatment modalities: CBT, Schema therapy, Art therapy, 12-step facilitation therapy, and process groups
- Devised and implemented individualized treatment plans, completed utilization reviews (URs) for insurance coverage, and maintained client files through daily notes and progress reports
- Participated in weekly individual and group supervision, didactic trainings, and clinical treatment team meetings and collaborated with a multidisciplinary team consisting of medical, psychiatric, financial, legal, and social services professionals
- Provided 24-hour emergency on-call and crisis intervention services on 7-day rotations

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- Completed comprehensive written assessments and participate as a member of a mult- disciplinary team of mental health professionals through providing diagnostic and treatment considerations
- Engaged in seminars and didactic trainings which include exposure to in-vivo participation, role-modeling and observational learning
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Position: <u>Pre-Doctoral Therapist, Student Counseling Services</u>
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- Provided individual therapy to currently enrolled undergraduate and graduate students who were experiencing a wide range of emotional, psychological, academic, personal, or substance abuse difficulties
- Engaged in crisis intervention and management
- Conducted preventative psycho-educational workshops and outreach projects throughout the greater Los Angeles area
- Facilitated and co-facilitated support groups for students with special needs.
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- Conducted individual intake interviews for an adult population suffering from a wide range of cognitive disorders, traumatic brain injuries, general medical conditions and psychiatric disorders
- Administered, scored and interpreted neuropsychological and emotional assessment batteries including, but not limited to, the Woodcock Johnson-III Tests of Cognitive Abilities and Academic Achievement, D-Kefs Verbal, Phonemic, and Design Fluency, WAIS-III, WTAR, CPT-II, WRAT-4, SDMT, CVLT, BVMT-R, BNT, HVOT, WCST, MSPQ, MMPI-2, BDI-II, and BAI
- Generated comprehensive neuropsychological evaluations including detailed description of testing results, level of cognitive and emotional functioning and treatment recommendations
- Participated in weekly didactics, individual and group supervision
- Delivered case presentations in weekly case conferences

- Attended weekly neuropsychology seminars

September 2010 - September 2011
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Supervisor: *Nora Jimenez, Ph.D.*
- Conducted individual intake interviews for an adult and adolescent population suffering from various neurological disorders, general medical conditions and psychiatric disorders.
- Administered, scored, interpreted and wrote full-length neuropsychological assessments reports, including, but not limited to, the WAIS-IV, WMS-IV, WASI, RAVLT, Rey-Osterrieth Complex Figure Test (Rey-O), FAS, Dot Counting Test, Grooved Pegboard Test, Trail Making Test, Stroop Color-Word Test, Ruff Figural Fluency Test, Independent Living Scale, TOMM, Finger Tapping Test, BSI, and Warrington Word Recognition Test
- Evaluated epilepsy surgery candidates for baseline assessment pre-surgery and follow up one year post surgery
- Received 1 hour of individual supervision per week

July 2009 - August 2012
Location: **Pepperdine University,** Los Angeles, CA
Position: Pre-Doctoral Therapist, Pepperdine Psychological and Educational Clinic
Supervisor: *Aaron Aviera, Ph.D. and Sepida Sazgar, Psy.D.*
- Conducted initial intake interviews, evaluations, as well as develop treatment plans for short and long term therapy
- Provided psychotherapy for adults and adolescents with a range of Axis I and Axis II disorders. Common disorders included depression, anxiety, substance dependence, posttraumatic stress disorder, and borderline personality disorder
- Participated in weekly group supervision to discuss diagnosis and treatment of psychological disorders for clinic clients
- Participated in additional weekly peer supervision
- Provided 24-hour on-call emergency pager coverage for all clinic clients

April 2008 - November 2009
Location: **Echo Malibu Adolescent Treatment Center,** Malibu, CA
Position: Marriage and Family Therapist Intern
Supervisors: *Jeffrey Nalin, Psy.D. and Karen Rubenstein, M.F.T.*
- Conducted initial evaluations and intake interviews for adolescents with substance abuse disorders and various co-occurring psychological disorders
- Administered and computer scored personality assessment measures, such as the MMPI-A
- Provided individual and group psychotherapy for adolescents suffering from a range of co-morbid psychological disorders, including substance abuse, depression, anxiety, eating disorders and posttraumatic stress disorder
- Co-led multi-family psychotherapy sessions with licensed clinical psychologists

- Formulated diagnoses, case conceptualizations and treatment plans
- Managed client cases, including keeping detailed progress notes and filing claims with insurance companies
- Supervised clients in daily activities, such as progression through the twelve-step process

RESEARCH EXPERIENCE
June 2011 - December 2011
Location: **UCLA – Mary S. Easton Center for Alzheimer's Disease Research,** Los Angeles, CA
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Supervisor: *Ellen Woo, Ph.D.*
- Contributed to ongoing research study on individuals with mild cognitive impairment and early onset of Alzheimer's disease and dementia
- Conducted comprehensive individual interviews concerning ability to function in various activities of daily living and changes in functioning over time
- Administered and scored full-length neurocognitive assessments
- Converted research results and input into computer database

TEACHING EXPERIENCE
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Course: Marriage and Family Therapy II

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Event: National Depression Screening Day

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California Association of Marriage and Family Therapists (CAMFT), *Student Affiliate*

ABSTRACT

This critical analysis of the literature is a comprehensive collection and review of the literature on the strengths-based perspective as it is applied to the treatment of substance use disorders. Literature was collected, analyzed, and critically evaluated to consolidate the existing research on strengths-based treatment approaches, identify ways in which the strengths-based perspective is congruent with culturally competent practice, and to identify strengths, weaknesses, and gaps in the literature. Analyses reveal that there are numerous components of the strengths-based perspective that are congruent with culturally competent practice and that strengths-based treatment approaches may serve as an effective adjunct or alternative to traditional treatment approaches for substance use disorders. While additional research is needed to further our understanding of the effectiveness of this approach, preliminary results indicate that there are numerous therapeutic advantages associated with the strengths-based perspective and its use with substance abusing populations.

Chapter One: Introduction

For at least the past century, the field of clinical psychology has closely aligned with the principles and practices of the *medical model*, which tend to emphasize disease and dysfunction and pay little attention to health and wellness. The medical model is structured primarily around the identification of illness, exploration of causes and origins of disease, and development and delivery of curative interventions. A similar illness-based framework guides the work of clinical psychologists whose education and training have conditioned them to think in terms of mental illness, disorders, deficits, and abnormalities in human behavior. Like that of the medical model, the primary objective in the field of clinical psychology is to identify and characterize disorders according to specific symptom constellations and to administer interventions aimed at treating those symptoms. Though this conventional approach to medical and psychotherapeutic practice has yielded positive results with regard to facilitating efficient and accurate diagnosis and informing systematic treatment protocols, some argue that maintaining a traditional deficit-based perspective limits our capacity to create solutions and achieve higher levels of health and wellbeing (Seligman & Csikszentmihalyi, 2000; White & Epston, 1990). Additionally, deficit-based approaches presume that adjustment and maladjustment are located within individuals rather than in their interactions with the environment and encounters with cultural values and social norms (Maddux, 2008; Van Dyke & Hovis, 2014). By inadequately accounting for the ways individuals affect and are affected by cultural and contextual factors, normal human struggle and pain are often pathologized, important parts of the individual and his or her experiences are ignored, and inequitable treatment interventions are employed (Van Dyke & Hovis, 2014). Furthermore, people who seek help for psychological difficulties are portrayed as victims of psychological and biological forces beyond their control (Maddux, 2008). As a result,

clients' sense of control is minimized and they become passive recipients of expert care rather than active participants in the pursuit of health and wellness (Priebe, Omer, Giacco, & Slade 2014).

An alternative to the traditional deficit-based approach to mental health treatment lies within the *strengths-based* approach, which focuses primarily on identifying and utilizing clients' individual strengths and resources. Strengths-based practice involves locating, articulating, and building on clients' assets and capabilities as means to find solutions to current problems and promote optimal health (Park & Peterson, 2009a). Treatment is goal-oriented and interventions are individually tailored to address the specific needs and self-determined goals of the client, who is regarded as the expert on his or her own life. The strengths-based approach highlights the importance of maintaining a strong and collaborative relationship between the client and practitioner, one in which the practitioner's role is less about being the expert or fixer and more about being a co-facilitator of solutions (Boyle, Slay, & Stephens, 2010). Establishing a therapeutic alliance necessitates that practitioners see and relate to their clients as whole human beings, rather than the sum of their illness or disorder, and requires that they continually demonstrate respect and understanding of their clients' backgrounds, attitudes, worldviews, and belief systems (La Roche, 2002). In doing so, an atmosphere of trust is established and mutually agreed upon goals and objectives can be formulated.

While the central objectives of strengths-based practice vary from those of traditional deficit-based approaches, prioritizing wellbeing and building clients' strengths does not equate to ignoring mental illness or minimizing problems. Rather, one's struggles with mental illness are recognized as one, among many parts that comprise an individual's life and overall experiences. Strengths-based practice seeks to help clients acknowledge that along with weaknesses, they

possess strengths, and in spite of illness, it is possible to live a worthwhile and fulfilling life. Building strengths and utilizing available resources is intended to prevent and protect against the progression of illness, counter and/or relieve suffering, foster hope for the future, and empower clients to achieve their desired goals. Within the field of psychology, strengths-based approaches provide a different lens through which to view mental health, a lens that illuminates the positive traits and characteristics of an individual and seeks first to increase mental wellness rather than decrease dysfunction.

Building clients' strengths is recognized as an important treatment component in many psychotherapy models (e.g., cognitive behavioral therapy); however, strengths-based approaches differ from these models in that their primary endeavor is to promote individual strengths and optimal functioning (Smith, 2006). Whereas cognitive behavioral therapy (CBT) aims to change maladaptive thinking and behaviors and teach new skills that may lead to attaining strengths, the strengths-based model recognizes clients' strengths as a basic therapeutic intervention (Smith, 2006). Strengths-based practice represents a specific and independent category within the field of clinical psychology that is guided by a distinct set of ideologies and principles intended to facilitate collaboration between client and treatment provider and foster growth, empowerment, and goal attainment (Saleebey, 2006).

Strengths-based approaches to clinical work have become increasingly more popular and widely used in recent years (Biswas-Diener, Kashdan, & Minhas, 2011). A shift in perspective from the diagnostic approach to a more functional, strengths-focused approach is especially noticeable in social work practice (e.g., strengths-based case management), as well as counseling and clinical psychology (e.g., positive psychology). One contributing factor of its growing popularity has been Martin Seligman's introduction of *positive psychology* in 1998 (Seligman &

Csikszentmihalyi, 2000). Seligman's model helped bring awareness to the disproportionate focus on pathology and illness over health and wellbeing within the field of psychology. Seligman also introduced the notion that mental health can be broken down into quantifiable aspects (i.e., positive emotion, engagement, and purpose), making it possible to measure and track levels of wellness (Seligman, 2008). Along with positive psychology, other established treatment modalities that adhere to the core principles of strengths-based practice include solution-focused therapy (SFT; de Shazer, 1985, 1988, 1991) and narrative therapy (White & Epston, 1990). Common among these three models is their deviation from the traditional focus on pathology, abnormality, and problems and their emphasis on building strengths and promoting wellbeing.

Although strengths-based approaches offer an appealing alternative to traditional deficit-based models, the evidence of the effectiveness of these practices is just beginning to emerge (Pattoni, 2012). Research findings thus far indicate promising results in the areas of improving social connectedness and community development (Foot & Hopkins, 2010) and building coping skills and optimism in children and families (Early & GlenMaye, 2000; Seagram, 1997; Woods, Bond, Humphrey, Symes, & Green, 2011). Furthermore, empirical research suggests that strengths-based interventions are effective in developing and maintaining hope in individuals (Smock et al., 2008) and increasing sense of wellbeing through building individual assets and finding solutions to problems (Park & Peterson, 2009b). Research on the effects of positive interventions have yielded positive results with regard to decreasing depression, improving treatment compliance, and enhancing subjective levels of happiness and wellbeing (Seligman, Steen, Park & Peterson, 2005). These research findings suggest that progress has been made

toward establishing a strong evidence base for strengths-based approaches in the treatment of mental health disorders.

While progress has been made toward establishing strengths-based practice as an effective approach for enhancing wellness and treating some disorders (i.e., depression), the research remains relatively sparse in the area of strengths-based treatment for substance use disorders (SUDs). Substance use disorders are a particularly relevant area of concern due to their association with a wide range of mental and physical health problems (i.e., infectious disease, organ damage, neurological problems, depression, anxiety), high mortality and morbidity rates, and enormous financial costs (National Institute on Drug Abuse, 2012). For example, in 2013, approximately 70, 000 deaths in the United States resulted from alcohol and drug-induced causes (Xu, Murphy, Kochanek, & Bastian, 2016). Additionally, consequences associated with SUDs, including lost work productivity, crime, and medical expenses cost the United States an estimated $600 billion per year (National Drug Intelligence Center, 2011). Given the impact of substance use disorders, substantial efforts have been made in the scientific community to understand their causes, identify empirical solutions, and develop effective treatment approaches. Considerable progress has been made in the past several decades; however, efforts have largely focused on achieving health through alleviating pathological factors (Webb, Hirsch, & Toussaint, 2015). Much less work has been dedicated to fostering pre-existing strengths and/or facilitating wellbeing beyond the absence of symptoms. Alternatives to the traditional approaches to therapeutically addressing substance abuse, such as fostering strengths and virtues, may serve to prevent substance use disorders, promote resilience, and reduce relapse. Additional research is needed to determine whether a shift toward strengths-based practice may improve the effectiveness of treatment for substance use disorders.

Specific Aims and Objectives

This critical analysis of the literature aims to:

1. Provide a review of relevant research pertaining to the prominent psychotherapeutic approaches used in the treatment of substance use disorders;

2. Consolidate existing research on strengths-based treatment approaches and evaluate their effectiveness in treating substance use disorders;

3. Identify and discuss ways that strengths-based practice is congruent with culturally competent practice;

4. Offer practical suggestions that may assist researchers and treatment providers in finding ways to improve treatment of substance use disorders;

5. Identify and narrow gaps that exist in the literature on substance use disorder treatment; and

6. Suggest recommendations for future research.

Reaching these objectives should serve to enhance awareness of the relevant issues pertaining to substance use disorders and generate recommendations for areas of exploration that may potentially contribute to the overarching goal of improving treatment outcomes.

Definition of Key Terms

Definitions are provided to inform the reader of how key terms and concepts were operationalized within this document.

Addiction: a condition or disease characterized by compulsive and pathological drug seeking or use despite negative consequences. This term is used synonymously with the term *substance use disorders* due to the considerable overlap of meaning that exists in the literature.

Medical Model: an approach to diagnosing and treating illness, which focuses primarily on physical and biological causes of deficits and dysfunctions. Mental illness is assumed to result from organic abnormalities generated in the brain and are treated similarly to other medical conditions. The medical model, which is also referred to as the *disease model,* is primary framework utilized in twelve-step programs.

Strengths-Based Approach: an approach to assessing and treating mental health problems through the identification and utilization of individual strengths and resources. Rather than focusing on deficits and dysfunction, the primary objective of the strengths-based approach is to promote health and wellbeing.

Substance: a drug of abuse, medication or toxin (APA, 2013). This term refers to both licit and illicit drugs from the following classes: alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, hypnotics, anxiolytics, stimulants, and other unknown substances of abuse. For the purpose of maintaining continuity and flow throughout the text, the term substance is used synonymously and interchangeably with the terms *chemical* and *drug.*

Substance Use Disorder (SUD): a maladaptive pattern of chronic substance use resulting in significant impairment or distress and meeting diagnostic criteria listed in the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-V; APA, 2013). A complete list and description of the symptom constellation required for the diagnosis of a SUD is provided in the *Literature Review* section of this document. In the updated version of the DSM (DSM-V), the categories of substance abuse and substance dependence were replaced with the single category of substance use disorders; however the majority of current literature does not reflect this change and refers to abuse and dependence as separate disorders. For clarity and continuity,

the terms substance dependence, substance abuse, and substance use disorders are used

interchangeably throughout this document.

Chapter Two: Review and Analysis Procedures

Purpose and Scope of the Review

The purpose of this critical literature review is to investigate current research pertaining to the application and effectiveness of strengths-based approaches in the treatment of substance use disorders. Currently, there exists a large body of empirical research on deficit-based treatment of substance use disorders and a growing body of research exists on the application of strengths-based approaches in the treatment of various diseases and mental health disorders; however, very little research has been conducted to determine the applicability and effectiveness of strengths-based approaches in the treatment of substance use disorders. This critical analysis of the literature includes a review of current empirically supported psychotherapeutic treatment of substance use disorders as well as an in-depth discussion of strengths-based treatment approaches, including definition of the term, theories from which it originated, and ways in which it is congruent with culturally competent practice. This study also includes a comprehensive review and analysis of the research that exists on strengths-based treatment of substance use disorders. This critical analysis of the literature aims to explore and identify gaps in the research pertaining to strengths-based treatment in substance abuse disorders in order to build upon the existing body of literature, inform mental health clinicians and other treating professionals of available substance abuse treatment options, provide suggestions for exploration of alternative treatment approaches, and provide recommendations for future research.

Analysis Procedures

The review and critical analysis of the literature consisted of five stages, which are described below. A flow diagram of methods was created to provide a visual representation of this process (see Appendix B).

Formulation of inclusion and exclusion criteria. Prior to conducting the initial literature search, inclusion criteria were formulated. The first inclusion criteria was that the publication should be relevant, meaning that the publication should examine current substance abuse treatment within the scope of psychotherapeutic treatment modalities. Second, publications that had been empirically tested and contained a specified treatment intervention component (as opposed to case management, self help, or sponsor program) were identified and considered for further review. Additional inclusion criteria were applied following the initial literature search in order to further narrow the selection of literature to that which is most relevant to the purpose of this critical analysis. Publications pertaining to treatment models that were either specifically categorized as strengths-based and/or were congruent with the fundamental principles and standards of strengths based practice as described by Rapp, Saleebey, and Sullivan (2005) were extracted for further review. The six criteria necessary for an approach to be considered strengths-based are: (a) Goal oriented, (b) Utilize strengths-assessment, (c) Use resources from the environment, (d) Explicit methods used for identifying client and environmental strengths, (e) Therapeutic relationship is hope-inducing, (f) Collaborative stance implemented that highlights client's meaningful choice and presumes that the client is the expert in his or her own life.

Literature search. The literature search was broken down into four separate phases in order to gather the most comprehensive and relevant body of literature. The four databases searched in all phases included: PsycARTICLES, the Educational Resources Information Centre (ERIC) catalog, PsycINFO, and PsycCRITIQUES through EBSCO Host. Dissertations with topics related to substance abuse treatment programs were also reviewed to ensure the inclusion

of all relevant information. The specific search terms used and the results yielded in each phase are described below.

Phase one (identification of empirically supported SUD treatment modalities). A literature search using the terms *substance use disorders, substance abuse, substance dependence, chemical dependency,* or *addiction* in combination with the terms *psychotherapy, psychotherapeutic treatment, treatment, program, and*/or *therapy* with dates ranging from 2000-2015 was conducted. Additionally, a literature search using the terms *substance use disorders, substance abuse, substance dependence, chemical dependency,* or *addiction* in combination with the terms *culturally congruent*, *culturally centered, and/or culturally adapted* was also conducted. Results from these searches revealed a broad range of theories, treatment modalities, programs, and multidisciplinary approaches to substance abuse treatment. Those that were empirically supported and contained a specified treatment intervention component (as opposed to case management, self help, or sponsor program) were identified and considered for further review. The following modalities were included: *CBT,,Contingency Management (CM), Motivational Enhancement Therapy (MET), Narrative Therapy, Positive Psychology, Solution Focused Brief Therapy* (*SFBT*)*,* and *12-Step Facilitation Therapy* (*TSFT*)*.*

Phase two (identification of SUD treatment modalities that meet criteria for strengths-based). Seven separate literature searches were conducted for each of the previously identified treatment modalities using the name of the model as the key search term. Results from each search were reviewed and treatment models that either specifically identified as 'strengths-based' or were congruent with the fundamental principles and standards of strengths based practice as described by Rapp, Saleebey, and Sullivan (2005) were extracted. Models that met this criteria

included: *Motivational Enhancement Therapy, Narrative Therapy, Solution Focused Brief Therapy, and Positive Psychology.*

  Phase three (identification of literature pertaining to strengths-based treatment of SUDs). Separate literature searches were conducted for each of the four previously mentioned models using the name of the model in combination with the terms *substance abuse,* or *substance use disorder, or substance dependence,* or *chemical dependence,* or *addiction*. The date qualifiers were lifted during this phase in order to obtain a more comprehensive body of literature specific to strengths-based treatment. These literature searches yielded a combined total of 266 results. Results from each individual search are as follows: (a) *Motivational Enhancement Therapy* AND *substance abuse* or *substance use disorder* or *substance dependence* or *chemical dependence*, or *addiction* yielded 156 results between the years of 1995 and 2015; (b) *Narrative Therapy* AND *substance abuse* or *substance use disorder* or *substance dependence* or *chemical dependence,* or *addiction* yielded 35 results between the years 1997 and 2015; (c) *Solution Focused Brief Therapy* AND *substance abuse* or *substance use disorder* or *substance dependence* or *chemical dependence,* or *addiction* yielded 38 results ranging from the year 1994 through 2015; (d) *Positive Psychology* AND *substance abuse* or *substance use disorder* or *substance dependence* or *chemical dependence,* or *addiction* yielded 37 results between the years of 1994 and 2015.

  Phase four (exclusion of literature not relevant to topic). A review of the found publications was conducted and those that were not relevant to the specific aims of this critical analysis of the literature were excluded. Those that did not contain information pertaining to treatment of substance use disorders were excluded, along with those that aimed to determine the effectiveness of various medication regimes in combination with psychotherapy. Studies on

smoking cessation were excluded, as well as studies on behavioral addictions (i.e., gambling). Given the robust body of literature on MET, and for the purpose of including the most relevant studies, MET publications were limited to those that had been conducted in the past 15 years.

Examination and categorization of all publications. All publications were examined and categorized according to theoretical model/ background (e.g., Motivational Interviewing/Motivational Enhancement Therapy (MI/MET), Narrative Therapy, Positive Psychology, Solution Focused Brief Therapy, and Strengths-Based Perspective General); and type of study/design (e.g., theoretical, empirical).

Examination and categorization of empirical articles. Literature tables were created to categorize, describe and evaluate found publications. Relevant information pertaining to each study was extracted and summarized under the following headings: Main Purpose/Aim, Study Design and Sample, Intervention(s) Used, Key Findings (including outcome measures), Strengths and Limitations, and Additional Notes and Cultural/Contextual Factors (See Appendix A). The literature tables provide the scope for the description and evaluation of the found publications.

Critical analysis of the literature. The critical analysis of the literature was carried out using the literature tables as tools to aid in the review and formation of methodological and conceptual critiques. This process included evaluating key findings, identifying common clinical factors, examining and evaluating cultural and contextual factors, identifying gaps in the literature and developing suggestions for future research. Information pertaining to intervention definition, treatment fidelity, and outcome measures was also analyzed and discussed.

Chapter Three: Review of the Literature

The following section contains a review of relevant literature pertaining to substance use disorders and their treatment. The definitions of substance use disorders and addiction are presented, followed by a review of current statistics on the prevalence of substance use disorders in the United States, the corresponding mortality and morbidity rates, and the resulting social consequences. The etiology of substance use disorders and the risk factors associated with the development, progression, and maintenance of substance use disorders is included, along with psychological models of etiology. The next topic reviewed is traditional treatment modalities for substance use disorders and their effectiveness, followed by an overview of the strengths-based perspective and the strengths-based modalities used to treat substance use disorders.

Definition of Substance Use Disorders

The *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5) defines a Substance-Use Disorder (SUD) as a "cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems" (APA, 2013, p. 483). Diagnostic criteria for a SUD is met when a person manifests at least two of the eleven symptoms listed in the DSM-V within a 12-month period. Symptoms include: (a) recurrent substance use resulting in failure to fulfill major role obligations, (b) recurrent substance use in physically hazardous situations, (c) continued substance use despite recurrent or persistent social or interpersonal problems resulting from or exacerbated by effects of the substance, (d) tolerance to the substance, (e) withdrawal from the substance, (f) the substance is taken in larger amounts or over a longer period than was intended, (g) persistent desire or failed attempts to cut down or control substance use, (h) significant time spent obtaining, using, or recovering from the substance, (i) important social, occupational, or

recreational activities are reduced or given up because of the substance use, (j) the substance is continually used despite negative consequences, and (k) cravings or strong urge to use a specific substance. The severity of a SUD –mild, moderate, or severe- is based on the number of criteria met. Two or three symptoms indicate a mild substance use disorder, four or five symptoms indicate a moderate substance use disorder, and six or more symptoms indicate a severe substance use disorder. The term *substance* can refer to "a drug of abuse, a medication, or a toxin" (APA, 2000, p. 191). The DSM-V recognizes ten separate classes of substances including alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, hypnotics, anxiolytics, stimulants, and other unknown substances and each specific substance is addressed as a separate disorder.

The term *addiction* is commonly used interchangeably in the literature with the terms *substance use disorder* and *substance abuse.* According to the American Society of Addiction Medicine (ASAM, 2011), addiction is defined as an inability to consistently abstain from use, impairment in behavioral control, physical and psychological cravings, and diminished capacity to recognize the behavioral and interpersonal problems resulting from one's use. Addiction is considered a chronic and progressive brain disease that leads to dysfunction in the circuitry involved in reward, motivation, memory, and other important functions. Dysfunction in these brain circuits is manifested in a variety of biological, social, and spiritual arenas and lead to an individual pathologically pursuing the rewards provided by substance use (ASAM, 2011).

Current Statistics

According to a national survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014), an estimated 21.6 million persons aged 12 or older (8.2%) were classified with substance dependence or abuse in the past year based on criteria specified in the DSM-IV (APA, 2000). Of these, 2.6 million were classified with dependence or

abuse of both alcohol and illicit drugs, 4.3 million had dependence or abuse of illicit drugs but not alcohol, and 14.7 million had dependence or abuse of alcohol but not illicit drugs. The annual number of persons with substance dependence or abuse in 2013 (21.6 million) was similar to the number in each year from 2002 through 2012 (ranging from 20.6 million to 22.7 million). The specific illicit drugs with the largest numbers of persons with past year dependence or abuse in 2013 were marijuana (4.2 million), pain relievers (1.9 million), and cocaine (855,000). The number of persons with marijuana dependence or abuse was similar between 2002 and 2013. The number with pain reliever dependence or abuse in 2013 was similar to the numbers from 2006 to 2012. The number with cocaine dependence or abuse in 2013 was similar to the numbers in 2010 to 2012.

In 2013, 4.1 million people ages 12 and older received treatment for a problems related to the use of alcohol or illicit drugs (SAMHSA, 2014). The types of treatment sought included self-help groups, outpatient rehabilitation, mental health center (as outpatient), inpatient rehabilitation facility, hospital inpatient, private doctor's office, emergency room, and prison or jail. According to the survey, alcohol was the number one reason for seeking treatment.

Treatment need is defined as having substance dependence or abuse or receiving substance use treatment at a specialty facility (hospital inpatient, drug or alcohol rehabilitation, or mental health centers) within the past 12 months. In 2013, 22.7 million persons aged 12 or older needed treatment for an illicit drug or alcohol use problem (8.6% of persons aged 12 or older). Of these, 2.5 million (0.9% of persons aged 12 or older and 10.9% of those who needed treatment) received treatment at a specialty facility. Thus, 20.2 million persons (7.7% of the population aged 12 or older) needed treatment for an illicit drug or alcohol use problem but did not receive treatment at a specialty facility in the past year.

Of the 20.2 million persons aged 12 or older who were classified as needing substance use treatment but did not receive treatment at a specialty facility in the past year, 908,000 persons (4.5%) reported that they felt they needed treatment for their illicit drug or alcohol use problem (SAMHSA, 2014). Of these 908,000 persons who felt they needed treatment, 316,000 (34.8%) reported that they made an effort to get treatment. Based on combined 2010-2013 data, the most commonly reported reason for not receiving treatment among this group of persons was a lack of insurance coverage and inability to afford the cost (37.3%).

Substance use disorders are associated with a wide range of negative consequences, including high morbidity and mortality rates. According to the 2013 report from the U.S. Centers for Disease Control and Prevention, in the year 2010, 25,692 persons died of alcohol-induced causes in the United States. This number includes deaths from dependent and nondependent alcohol use and deaths from accidental poisoning by alcohol. It excludes unintentional injuries, homicides, and other causes indirectly related to alcohol use. This number represents a 2.7% increase from the year 2009. Additionally, a total of 40,393 persons died of drug-induced causes, including deaths from poisoning and medical conditions caused by use of legal and illegal drugs, as well as deaths from poisoning due to medically prescribed and other drugs. This number represents a 2.4% increase from the year 2009 (SAMHSA, 2014).

Aside from high morbidity and mortality rates, substance use disorders have significant financial consequences. According to the National Institute on Drug Abuse (NIDA, 2012), substance abuse, addiction, and its consequences cost the United States more than $500 billion annually. This number includes costs related to crime, lost work productivity, and health care. Health care alone costs approximately $25 billion for alcohol abuse and $11 billion for illicit drug abuse each year (SAMHSA, 2014).

Etiology of Substance Use Disorders

Numerous models have been developed in an effort to explain the cause of substance use disorders, each highlighting different aspects of the disorder. The etiology of substance use disorders has been attributed to a wide range of factors, including biological predisposition, psychological vulnerabilities, and socio-cultural components. In general, substance use disorders are best understood as conditions that are influenced by a combination of biological, psychological, and socio-cultural factors, each present in differing degrees across individuals. Significant variability exists among the type of people who use substances and the manner in which substance use disorders develop and progress over time. Below is a description of the factors that are most frequently associated with substance use disorders.

Biological factors. Biological factors such as genetic heritage, age, and gender have been recognized as influential factors involved in the development, progression, and maintenance of substance use disorders (Washton & Zweben, 2006). Genetic factors influence an individual's physiological responses to substance use and can increase his or her vulnerability to developing an addiction. Though researchers have yet to identify specific genes responsible for addiction, numerous studies have linked genetic factors to substance use disorders. For example, twin studies have shown higher concordance rates (degree and extent of similarity) between monozygotic than dizygotic twins (Kendler, Heath, Neale, Kessler, & Eaves, 1992; McGue, Pickens, & Svikis, 1992), indicating a genetic basis. In an effort to separate genetic from environmental factors that may influence concordance rates among twins, adoption studies have been conducted with adopted children born of an alcoholic parent and placed in a nonalcoholic home. These studies indicate that adopted children of an alcoholic parent typically develop alcoholism at a higher rate than do adopted children with neither parent affected by

alcoholism (Cardoret, Cain, & Grove, 1980; Cloninger, Bohman, & Sigvardsson, 1981; Goodwin et al., 1974). Results from these studies suggest that genetic factors play an important role in influencing the risk for developing alcoholism; however, they do not indicate that genetic factors are deterministic.

Gender is another factor that influences the risk of developing a substance use disorder. Gender differences in drinking patterns, prevalence of alcohol problems, physical consequences of chronic alcohol use, and treatment utilization have been identified in the literature (Wilsnack, Vogeltanz, Wilsnack, & Harris, 2000). For example, studies show that women typically drink alcohol less frequently than men, and tend to drink smaller amounts per occasion (Wilsnack et al., 2000). Additionally, other studies have shown that men are two to three times more likely to have a diagnosis of alcohol abuse or dependence than were women (Grant, Harford, & Dawson, 1994; Hasin et al., 2007). These differences may be attributed to sociocultural factors, such as higher cultural restraints placed on women, or biological components involved in the absorption, distribution and elimination of alcohol. Though men have higher rates of alcoholism, women have been shown to have higher rates of alcohol-related mortality and morbidity (Fuchs, Stampfer, & Colditz, 1995). Alcohol affects women differently because they typically weigh less than men and have lower levels of enzymes that metabolizes alcohol in the stomach, resulting in higher levels of alcohol absorption into the bloodstream (Frezza et al., 1990). Therefore, women are likely to become more intoxicated on less levels of alcohol than men do.

Differences in how individuals respond to substances are largely determined by their metabolism, sensitivity to particular drug effects, level of tolerance, and neurological characteristics. Properties of the drug, including its proneness to abuse, how it is administered,

how quickly it is absorbed, and its physical and neurological effects are also involved in determining a person's vulnerability to developing a substance use disorder.

Psychological factors. Coexisting psychiatric disorders can markedly increase the risk of developing a substance use disorder (Washton & Zweben, 2006). Anxiety, depression, and other mood disorders are among the most common psychological disorders associated with problematic substance use. Comorbidity of substance use disorders with mood disorders can complicate the presentation and progression of each disorder because one disorder often exacerbates the symptoms and severity of another disorder. Certain personality traits, including impulsivity and aggression have also been correlated with increased risk of substance use (Washton & Zweben, 2006).

Sociocultural factors. Social and cultural factors, including socioeconomic status, peer group, family dynamics, and prevalence of use in communities and subgroups, have also been associated with increased vulnerability to substance use and substance use disorders. Alcohol dependence, for example, is generally more common among people of lower income and educational levels (Anthony, Warner, & Kessler, 1994). Poverty and unemployment are correlated with early exposure to substances, increased sense of hopelessness, and limited access to treatment once problems with substance use emerge (Washton & Zweben, 2006). Peer pressure, high prevalence of use within social groups, and cultural attitudes that encourage the use of alcohol and other drugs have also been shown to increase the likelihood of developing and maintaining substance use disorders in susceptible users. Likewise, certain cultural norms and religious beliefs that discourage the use of alcohol and other drugs may serve as protective factors that help prevent problematic substance use (Washton & Zweben, 2006).

The complex nature and course of substance use disorders has made it difficult for researchers and practitioners to construct a universally accepted model of etiology. As a result, treatment protocols vary within and across disciplines depending on what is perceived to be the most critical and relevant underlying cause. Within the medical model, substance use disorders are considered chronic brain diseases resulting from biological and physiological components (Jellinek, 1960, 1983). Alternatively, psychological models attribute the cause of substance use disorders to various psychological, cognitive, behavioral, and environmental factors. The most prominent explanatory models within the field of psychology include psychoanalytic models, behavioral models, cognitive models, and social learning models.

Psychological Models of Etiology

Psychoanalytic models. From a psychoanalytic perspective, addictive behaviors are driven by internal psychic conflict surrounding conscious and subconscious motives, needs, and drives. Several different theories exist within the psychoanalytic frame, each containing explanations of the specific processes that underlie the development and maintenance of addiction. For example, Sigmund Freud (1949) and other early psychoanalysts believed that all forms of addiction, including behavioral and chemical, were indicative of an oral fixation, or regression to the oral stage of psychosexual development. Freud proposed that addictive behaviors were substitutes for primal sexual urges and that the cycle of addiction represented a reenactment of internal conflict resulting from feelings of guilt and shame surrounding innate urges (Freud, 1949). More recent psychoanalytic perspectives describe addiction as a disorder of self-regulation and emphasize disturbances in the ability to regulate internal emotional life and adjust to external reality. For example, Khantzian's (1985) *self-medication hypothesis* postulates that people use substances to self-medicate painful emotional states and psychiatric problems

brought on by ego malfunctions and vulnerabilities of the self. Vulnerabilities of the self include difficulties with self-esteem, poor affect regulation, problems with interpersonal relationships, and difficulties implementing self care (Khantzian, 1985). According to his theory, a person choses specific substances based on their ability to medicate, or compensate for, the person's particular ego malfunction or deficit. Substance use becomes more frequent when the person discovers that the short-term effects of the chosen substance help cope with negative emotions and relieve internal pain (Khantzian, 1985). Similar to Khantzian's theory, other psychoanalytic formulations describe substance use as an attempt to relieve suffering associated with missing or defective psychological structures, including those involved in the development of a complete and organized sense of self (Kohut, 1978), the ability to self soothe (Rinsley, 1988), and the ability to contain and work through frustration (Bion, 1967). Substance use disorders have also been associated with disturbed object relations (Krystal, 1982), problems with attachment, and unmet desires for omnipotent control (Director, 2005).

Behavioral models. Traditional behavioral models suggest that substance use behaviors are learned and maintained through classical or operant conditioning. Conditioning refers to the shaping of behaviors through cues and reinforcement. It is presumed that people behave in predictable ways based on how they have been conditioned. In the classical conditioning paradigm, substance use behaviors are learned through a series of repeatedly pairing a conditioned stimulus (CS) and an unconditioned stimulus (US) with substance consumption. After recurrent pairings, a conditioned response (CR) is developed and the presentation of either the CS or US triggers the substance use behavior. Research on classical conditioning demonstrates that stronger unconditioned stimuli create faster and stronger conditioned responses that are more resilient to extinction (Rachlin, Raineri, & Cross, 1991).

From an operant conditioning perspective, habitual substance use develops through the process of positive and negative reinforcement. When an individual engages in substance use behaviors and experiences pleasurable effects of the substance (i.e., euphoria), the behavior is positively reinforced and is more likely to occur again. Likewise, when substance use results in decreased stress or anxiety, the behavior is negatively reinforced, making it more likely to occur again. In essence, the consequences of a behavior determine the likelihood of whether or not it will continue. When a person develops physical dependence, additional reinforcing agents of substance use emerge, including relief from unpleasant withdrawal symptoms and temporary escape from substance-related problems such as a job loss, family discord, and legal problems (Bolton, Cox, Clara, & Sareen, 2006; Tomlinson, Tate, Anderson, McCarthy, & Brown, 2006). From a behavioral perspective, the learned behaviors involved in the development and maintenance of substance use disorders can similarly be *unlearned;* therefore, behavioral therapists frequently utilize the basic principles of classical and operant conditioning in the treatment of substance use disorders.

Cognitive models. According to cognitive models, substance use disorders result from a complex interaction between thoughts, emotions, and behaviors. Negative or maladaptive cognitive processes (i.e., thoughts, beliefs, schemas), trigger emotional responses and influence behaviors. J. S. Beck's (1995) cognitive model of substance abuse attributes the development of problem substance use behaviors to negative core beliefs about oneself (i.e., "I am unlovable" "I am hopeless" "I am weak") and positive anticipatory beliefs about the effects of taking a substance (i.e., "drinking will make me feel happy"). Once substance use is initiated, faulty positive expectations and appraisals of the substance's effects reinforce the behavior and lead to more frequent use. Over time, substance use behaviors replace healthy and adaptive coping

skills and the individual's beliefs about being unable to cope with negative emotions and stressful situations are strengthened. As substance use increases, the processes involved in classical conditioning (e.g., conditioned cravings, tolerance, and withdrawal) further serve to accelerate and perpetuate the cycle of problem substance use. In cognitive therapy, the therapist's primary goal is to help the patient identify and change maladaptive thinking patterns and dysfunctional belief systems. Realistic evaluation and modification of thinking patterns produces improvements in mood and brings about enduring emotional and behavioral change (J. S. Beck, 1995).

Social learning models. Bandura's (1977) social learning model suggests that a person learns substance use behaviors primarily through observing and modeling peers, family members, and other significant role models. Watching others engage in, and derive pleasure or reward from, substance related behaviors leads to the development of positive expectations about the consequences of substance use and influences the decision of whether or not to model substance use behaviors. Initiation and maintenance of substance use behaviors are also influenced by the substance-specific behavioral norms and attitudes present in an individual's social environment. Social reinforcement and expectation for positive consequences lead to the continuation of substance use behaviors and the eventual development of abuse or dependence (Moos, 2007).

Treatment of Substance Use Disorders

Cognitive behavioral therapy. Cognitive behavioral therapy (CBT) is an empirically tested form of psychotherapy that has been found to be effective in treating a wide range of psychological disorders. CBT was developed by psychiatrist Aaron Beck and is based on the cognitive model, which assumes that emotions and behaviors are influenced by the manner in

which an individual perceives and appraises internal and external stimuli (J. S. Beck, 1995).

According to Beck's theory, there are three levels of thinking that influence one's perception and

interpretation of internal and external stimuli, which include: (a) core beliefs, (b) intermediate

beliefs, and (c) automatic thoughts. Core beliefs develop in childhood and represent an

individual's fundamental understanding of himself, others, and his world (J. S. Beck, 1995).

Core beliefs are global, rigid and deeply entrenched, often existing outside an individual's

awareness and operating as absolute truths. Some core beliefs remain activated much of the

time, while others may only operate during a depressed state. When a core belief is activated,

the individual interprets a situation through the lens of this belief and tends to selectively focus

on information that confirms the belief while, disregarding other, more rational information (J. S.

Beck, 1995). This process serves to maintain and strengthen the core belief, regardless of its

accuracy or usefulness. Examples of common core beliefs include, "I am unworthy," " I am

defective," and "I am unlovable." Intermediate thoughts stem from core beliefs and represent a

class of beliefs consisting of attitudes, rules and assumptions (J. S. Beck, 1995). During early

stages of development, individuals attempt to organize and make sense of their environment

based on the interactions they encounter with the world and other people. These interactions

lead to the formation of understandings and beliefs, which often vary in their accuracy and

usefulness, and influence the way an individual thinks, feels and behaves (J. S. Beck, 1995). An

individual's underlying core and intermediate beliefs are often manifested by situation-specific

automatic thoughts, which are closest to the conscious awareness. Automatic thoughts also

influence the individual's emotional, behavioral and physiological responses to environmental

stimuli.

The predominant goal of cognitive behavioral therapy is to help individuals identify, accurately evaluate, and modify distorted, dysfunctional or inaccurate thinking patterns as a means to improve mood and behavior. Treatment is based on an evolving clinical conceptualization and interventions can occur at any point in the thoughts-feelings-behaviors cycle. Because of its emphasis on collaborative empiricism, the CBT therapist and patient work together as a team to develop and implement specific treatment plans and concrete goals. CBT is typically time-limited and utilizes objective clinical measures to track progress and treatment outcomes.

Cognitive behavioral therapy (CBT) for substance use disorders includes numerous distinct interventions, which can be combined or used in isolation (McHugh, Hearon, & Otto, 2010). Although CBT for SUDS varies according to protocols used and the substance targeted, there are several core elements that emerge across protocols. "Consistent across interventions is the use of learning-based approaches to target maladaptive behavioral patterns, motivational and cognitive barriers to change, and skills deficits" (McHugh et al., 2010, p. 516). A core principle within CBT as it pertains to substance use disorders is that substances of abuse act as strong behavioral reinforcers, and over time, their reinforcing effects become associated with various internal and external stimuli. "The core elements of CBT are intended to mitigate the strongly reinforcing effects of substances of abuse by increasing the contingency associated with nonuse or by building skills to facilitate reduction of use and maintenance of abstinence, and facilitating opportunities for nondrug activities" (McHugh et al., 2010, p. 516). More specifically, CBT for SUDs focuses on reducing patient's positive expectations about substance use while increasing overall self-efficacy to reduce substance misuse. This includes a strong focus on building and

improving skills for coping with daily life stressors and situations that may induce relapse (Moos, 2007).

Cognitive behavioral therapy for substance use disorders frequently includes interventions aimed at measuring and increasing motivation. Assessing an individual's motivation for treatment and likelihood for treatment adherence is an important first step that helps to inform treatment goals and intervention choice. Techniques developed to enhance patient motivation include approaches such as motivational interviewing (MI), which is based on targeting an individual's ambivalence toward behavior change related to substance-use. The MI model can be used as a stand-alone model or in combination with other treatment methods that target substance use disorders (McHugh et al., 2010). In one meta-analytic review of MI-based interventions, small to moderate effect sizes were found for alcohol and moderate effect sizes were found for drug use when compared to placebo or no-treatment control group. Similar efficacy was found compared to other active treatment approaches (McHugh et al., 2010).

Along with motivational interviewing, contingency management approaches are commonly used in CBT protocols for treating SUDs. Contingency management (CM) approaches are well researched and have shown to help counter the strong reinforcing effects of drugs. Contingency management approaches are based on operant learning theory and involve administration of a nondrug reinforcer, such as monetary goods, following the demonstration of abstinence from substances. Numerous clinical trials have supported the efficacy of CM for various substances of abuse including alcohol, cocaine, and opioids (McHugh et al., 2010). Meta-analyses indicate moderate effect sizes for CM across studies with greater efficacy for certain substances (cocaine, opioids) relative to others (McHugh et al., 2010).

Another cognitive behavioral approach to substance use disorders that has been well researched is a relapse prevention approach that emphasizes a functional analysis of cues for drug use and the systematic training of alternative responses to these cues (McHugh et al., 2010). This approach focuses on identifying and targeting high-risk places and situations that may increase the likelihood of substance use/relapse. Techniques include challenging the individual's expectations for the positive effects of the drug and the use of psychoeducation to help the individual make more healthy and well-informed choices in the face of high-risk situations (McHugh et al., 2010). Meta-analytic studies conducted on the efficacy of relapse prevention interventions for drug and alcohol use disorders found a small effect for reducing substance use, but showed a large effect for improving overall psychosocial adjustment (McHugh et al., 2010). According to Wenzel, Liese, A. T. Beck, and Friedman-Wheeler (2012), CBT for substance abuse has the potential to be especially tolerable and acceptable to patients because of its emphasis on autonomy, respect, and individuality, and because it provides patients with effective coping skills that may be used to overcome cravings and manage emotional distress.

Evaluation of CBT for substance use disorders. Cognitive behavioral therapy for substance use disorders has been subjected to a great deal of empirical scrutiny over the past several decades. Numerous CBT-based interventions for SUDs have been described and empirically evaluated in the literature (Wenzel et al., 2012). Many large-scale trials and quantitative reviews support the efficacy of CBT for alcohol and drug use disorders (McHugh et al., 2010). According to research, CBT is among the most empirically supported interventions for the treatment of substance use disorders (Granillo, Perron, Jarman, & Gutowski, 2013). CBT for SUDs includes a variety of behavioral interventions that target operant learning processes, motivational barriers to improvement, and skill building. CBT interventions have shown

efficacy in controlled trials and can improve treatment outcomes when combined with other interventions, such as pharmacotherapy (McHugh et al., 2010).

For example, in one well-known study called Project MATCH, a skills-based CBT protocol was evaluated for patients with alcohol abuse and dependence. The results from this study indicate that when compared to Motivational Enhancement Therapy and Twelve-Step Facilitation Therapy, CBT was equally as efficacious with respect to days of abstinence and reduction of number of drinks per drinking day following the first year of treatment (Project MATCH Research Group, 1997). Other studies show similar findings, demonstrating that CBT and relapse prevention programs result in substance use outcomes that are comparable in effectiveness to those obtained by Motivational Enhancement Therapy (MET), TSFT, and 12-step aftercare programs (Babor & Del Boca, 2003; Moos, 2007). Another more recent meta-analysis of a broad spectrum of CBTs (including contingency management and relapse prevention) for drug abuse disorders achieved an effect size in the moderate range when CBT was compared to general drug counseling or treatment-as-usual (Dutra et al., 2008; Wenzel et al., 2012).

The key components that underlie the efficacy of CBT include the focus on increasing resistance to substance use, self-efficacy and self-confidence, obtaining and utilizing general and substance specific coping skills, and reducing positive expectancies for substance use (Moos, 2007). Studies show that patients in CBT programs report "increased self-efficacy, more substance-specific coping skills, a rise in approach coping, and declines in avoidance coping and positive expectancies about substance use" (Moos, 2007, p. 113).

Twelve-step facilitation treatment. Twelve-step facilitation treatment (TSF) is a therapeutic approach based primarily on the principles of Alcoholics Anonymous (AA) and the

disease model of addiction. Alcoholics Anonymous was the first among many Twelve-Step

programs developed to help individuals overcome their addiction to substances and other

unhealthy, compulsive behaviors. The twelve steps provide a set of guiding principles and a

course of action for achieving sobriety and maintaining abstinence from other harmful behaviors.

They were originally developed by Dr. Bill Wilson and Bob Smith and were first published in

the 1939 book, Alcoholics Anonymous: The Story of How More Than One Hundred Men Have

Recovered from Alcoholism. Although initially intended to address alcoholism, the twelve- step

method of AA has since been adapted and applied to other programs designed to help individuals

recover from a wide range of addiction problems (e.g., narcotics, marijuana, compulsive sex).

The AA model views alcoholism and other forms of addiction as chronic, progressive

illnesses with specific symptoms and predictable courses. Addiction is characterized by a loss of

control over substance use and "denial," or resistance, to accepting the reality of the loss of

control. Alcoholics Anonymous and other twelve-step programs are not considered treatment

methods; rather, they are regarded as fellowship programs intended to help its members achieve

and maintain sobriety (Alcoholics Anonymous, 2001). Meetings are typically held in an open

format and are led by fellow members who are also struggling with the disease of addiction. The

twelve steps and twelve traditions that guide the program contain both medical and spiritual

principles. Spirituality, which is referred to as belief in a *higher power*, is fundamental to the

program and is considered an essential component of sustained recovery. Other than a desire to

stop using, there are no admission or membership requirements for the program.

Unlike twelve-step programs, twelve-step facilitation therapy (TSF) is a manualized

treatment modality delivered by licensed or accredited professionals. TSF is grounded in the

same disease concepts and guiding principles of twelve-step programs and employs the same

assumption that abstinence is the only effective remedy for alcoholism/substance abuse. The treatment provider's primary goal is to help patients abstain from substances and to promote active participation in the twelve-step program. Throughout treatment, patients are encouraged to regularly attend twelve-step meetings and to keep a journal of personal experiences and acquired wisdom. Therapy sessions are typically structured and the primary objectives are directly related to the twelve-steps, with particular focus on the first three steps.

The first three steps of AA are primarily concerned with promoting the concepts of *acceptance* and *surrender*. Individuals are encouraged to accept that they suffer from a chronic and progressive disease, that they have lost the ability to control their use, and that abstinence is the only option for recovery. Surrendering involves acknowledging that there is hope for recovery through accepting their loss of control and having faith in their Higher Power's ability to help them. This process also includes acknowledging that utilizing the resources available in the program and following the AA path provides the best change for successful recovery. Treatment goals within TSF include targeting a range of cognitive, emotional, behavioral, social, and spiritual objectives. The cognitive objectives involve understanding how substance use has affected their thinking and seeing the connection between their substance use and negative consequences such as physical, social, legal, psychological, financial, and physical problems. The emotional objectives involve understanding how certain negative emotional states (e.g., loneliness, frustration) can lead to substance use and learning that there are more practical ways to cope with emotions and decrease the risk of using. Behavioral objectives include acknowledging how many old or existing behaviors have supported their continued use and understanding the need to turn to the fellowship of the twelve-step program to change their behaviors and sustain sobriety. The social objectives include regular attendance and

participation in meetings and AA-sponsored social events, obtaining a sponsor and building a relationship with him/her, accessing twelve-step resources whenever they experience an urge to use, and re-evaluating their relationships with people who may be enabling their substance use behaviors. Spiritual objectives include developing hope that they will be able to arrest their substance use, believing and trusting in a power greater than their willpower, and acknowledging character defects, including immoral acts and harm done to others as a result of their addiction.

The TSF treatment program is intended to be brief and typically consists of twelve sessions. The majority of the sessions are held in an individual format followed by two to three conjoint sessions with the patient's significant other, if patient is involved in a stable relationship. The purpose of the conjoint sessions is to educate the partner about substance use disorders and the twelve-steps program, discuss the concept of enabling and how it can undermine recovery, and encourage participation in Al-Anon or another supportive program. Patients are expected to continue attending meetings and participating in the twelve-step program following the completion of TSF therapy.

Evaluation of TSFT. The research evaluating the effectiveness of AA and other twelve-step programs has yielded mixed results, making it difficult to determine whether or not it can be considered an effective treatment modality (Ferri, Amato, & Davoli, 2006). For example, a systematic review conducted by the Cochrane Database in 2006 concluded that there were no experimental studies that indisputably demonstrated the effectiveness of AA or Twelve-step facilitation approaches for reducing alcohol dependence or other related problems (Ferri et al., 2006). In other reviews, such as that conducted by Kaskutas (2009), it is argued that five out of six criteria are met with regard to causal evidence of the effectiveness of AA. Conducting sound research on twelve-step programs has been difficult due to a number of complicating factors.

First, anonymity is a foundational component of twelve-step programs; therefore, tracking attendance, determining reasons for dropout, and measuring long-term effects of treatment are difficult, if not impossible tasks. Additionally, controlling for confounding variables, such as treatment gains from simultaneous psychotherapy, is not feasible. Another factor that complicates the ability to conduct reliable and valid research is the significant number of court-mandated individuals that comprise the population of twelve-step program members.

Several well-researched treatment models for substance use disorders have been developed over the past several decades providing clinicians and other health professionals with an array of viable options to choose from when working with substance abusing clients. Though research efforts have grown and emerging treatment approaches show promising results, there remains significant room for improvement. Particularly important is the need for increased attention to the cultural and contextual factors that influence treatment outcomes. While no single treatment is effective for every individual, increased effectiveness is likely to result from closer consideration of culture and context.

Strengths-based treatment. The following section includes an overview of the strengths-based perspective and the fundamental principles underlying strengths-based practice. The conceptual and theoretical underpinnings of the approach are discussed along with a rationale for implementing strengths-based treatment with substance abusing populations. The subsequent section includes a review of the psychotherapeutic models that are consistent with strengths-based practice and an overview of the theories and practices associated with each approach.

Strengths-based perspective overview. The strengths perspective encompasses a collection of concepts and strategies that seek to elicit and bolster clients' innate abilities and

capacities. Those working from a strengths perspective hold the assumption that all individuals have within them a unique set of natural resources, competencies, and strengths that can be drawn upon to help them overcome adversities and improve the quality of their lives (Saleebey, 2006). Regardless of the problem faced or the degree with which a person is struggling, all people seeking help are presumed to possess personal goals, desire for change, and the capacity to successfully enact desired change processes.

The strengths perspective is built on several key principles. First, the therapeutic encounter and focus of treatment is centered on clients' strengths rather than deficits or possible pathologies. Strengths can be located both within the individual and in his or her environment, community, family, and culture (Brun & Rapp, 2001). The next principle of the strengths perspective is that therapists use co-constructed and individually tailored goals to meet the specific, and self-determined needs and desires of the client. Forming a collaborative, empowering, and hope-inducing relationship between client and therapist is an essential component of treatment.

Several researchers and authors have advocated for a strengths-based approach to treatment with culturally diverse and ethnic minority populations. For instance, Gallardo and Curry (2009) suggested that strengths-based treatment represents a culturally responsive approach to treating Latino clients with substance abuse problems. The authors note the alarmingly high rate of early treatment termination among Latino clients and discuss why traditional Western/Euro-American models of substance abuse treatment are often ineffective in meeting the specific needs of this culturally diverse group. In addition to considering the challenging contextual factors common among Latinos (i.e., acculturation stress, high rates of poverty, racial discrimination), mental health providers are urged to re-conceptualize substance

use and the role it plays in helping escape from social, political, and environmental stressors and problems (Gallardo & Curry, 2009). Following a discussion of the distinction between cultural responsiveness and cultural specificity, the authors provide examples of culture-specific values that should be incorporated into treatment with Latino clients (i.e., *familismo*).

A number of strengths-based programs have been developed to treat substance- abusing populations and several authors have described these programs and reviewed the preliminary results of the interventions and approaches they have employed (Cleek, Wofsy, Boyd-Franklin, Mundy, & Howell, 2012; Gray & Gray, 2001; Winek et al., 2010). For instance, Cleek et al. (2012) describe the *Family Empowerment Program*, which is a multi-systemic, community mental health family therapy program for multi-stressed urban families in New Jersey. It was developed in response to an acknowledged fragmentation of care within social services and mental health care agencies. The program provides an array of interdisciplinary services intended to build on family strengths and connect them with community resources within their natural living environments. Preliminary reports from staff members participating in the Family Empowerment Program indicated that the strengths-based approach resulted in an improved sense of empowerment to provide clinically sound and culturally sensitive services to families in need (Cleek et al., 2012).

Gray and Gray (2001) describe the *Brooklyn Program*, which is an experimental treatment program for substance abusing offenders who are under the supervision of the United States Probation Department. Participants were court-mandated to obtain treatment as a condition of their probation or parole. Groups ranged in size from 5 to 16 participants with 1 or 2 group facilitators. The group of participants included both males and females of diverse ethnicities. Gray and Gray (2001) reported that participants from the Brooklyn Program

responded positively to the program. Reports from referring probation officers indicated that retention rates were 70% and the majority of those who had dropped out had dual diagnoses and were in need of additional detoxification services. Additionally, recidivism rates had dropped from 25% to 20% with fewer than 3% having been revoked from supervision. Winek et al. (2010) described the *Support Network Intervention Team* (SNIT), which is a family-based substance abuse treatment program consisting of multiple agencies that work collaboratively to provide a range of services for families in need.

When referring to the strengths-based perspective, various terms have been used in different treatment settings making the distinction between strengths-based practice and other approaches incorporating clients' strengths difficult to determine. Rapp, Saleebey, and Sullivan (2005) developed a set of criteria for determining whether or not an approach is considered strengths-based. The standards include: Goal orientation, resources from the environment, explicit methods for identifying client and environmental strengths for goal attainment, hope-inducing relationship, and meaningful choice. Treatment models that meet this criteria include Motivational Interviewing/Motivational Enhancement Therapy, Solution-Focused Brief Therapy, Narrative Therapy, and Positive Psychology.

Motivational Interviewing/Motivational Enhancement Therapy. Motivational interviewing (MI) is a client-centered and empathic, yet directive therapeutic approach that aims to enhance intrinsic motivation to change through helping individuals identify and resolve ambivalence around behavioral change (Miller & Rollnick, 2002). MI employs a supportive and collaborative approach, which aims to foster acceptance and optimism of the client's innate ability to make positive decisions in his or her best interest. Within this model, the primary locus

of change lies within the client and the therapist's role is to mobilize the client's inherent resources and support intrinsic motivation for change.

MI's conceptual approach is linked to prior psychological theories including Festinger's (1957) formation of cognitive dissonance, Bem's (1967) reformation of self-perception theory, and Rogers' (1959) theory of the "necessary and sufficient" internal conditions for fostering change (Miller & Rose, 2009). It also integrates intervention principles and strategies from various models including relationship-building skills of humanistic therapy (Rogers, 1951) and behavioral strategies based on the stages of change model (Prochaska, DiClemente, & Norcross, 1992). The stages- of -change model is described as a trans-theoretical model of how people change maladaptive or addictive behaviors through a series of six stages, each requiring specific tasks and processes.

The first stage of change is *pre-contemplation* and those who are in this stage have not yet considered changing their problem behavior (Prochaska et al., 1992). In the next stage, known as *contemplation*, the individual has recognized that he/she has a problem and has begun to think about whether he/she is capable of making a behavioral change and what steps may need to be taken. Once the individual has made the decision to take action and change the problem behavior, he/she has progressed into the *determination* stage. The following stage is the *action* stage and it involves the actual initiation of behavior modification. Individuals typically remain in the active stage for 3-6 months then progress into the *maintenance* stage where they focus on sustaining the behavioral change. If at any point throughout the process their efforts fail, they enter into *relapse* and the cycle starts over again (Prochaska et al., 1992).

Regardless of the client's stage of change, the MI therapist follows the four main principles that guide the process of MI. The four guiding principles include expressing empathy,

developing discrepancy, rolling with resistance, and supporting self-efficacy (Miller & Rollnick, 2002). Expressing empathy is accomplished through reflective listening (or accurate empathy) as described by Carl Rogers (1951). The use of reflective listening communicates an acceptance of clients as they are, while also supporting them in the process of change. The client's ambivalence to behavior change is viewed as a normal component of human experience rather than defensiveness or pathology (Miller & Rollnick, 2002).

Another main principle of MI is developing discrepancy, which entails directing the client's attention towards the discrepancy that exists between where the client wants to be and where the client actually is. The term *normative discrepancy* is used to describe the dissonance between the client's maladaptive behavior and some other external standard of comparison such as behaviors of peers. *Self-ideal discrepancy* is a term used to reference the dissonance between the client's behavioral pattern and some internal standard of comparison, such as the individual's personal goals and values (Miller & Rollnick, 2002). The process of discussing these discrepancies is believed to foster awareness and elicit the client's innate capacity to change and tendency to grow in a positive direction (Miller & Rose, 2009). Like expressing empathy, the process of developing discrepancy is accomplished through reflective listening and the use of specific questions intended to draw attention to personal consequences of problem behavior and enhance motivation for change. Once the client is motivated for change, the therapist helps the client to strengthen his or her commitment to change (Miller & Rollnick, 2002).

The third principle of MI is rolling with resistance, which includes accepting, rather than opposing, the client's resistance to change. The client's resistance level fluctuates throughout the therapeutic process and the therapist's role is to remain supportive and avoid explicitly pushing for change. Pushing or arguing against resistance is considered counterproductive in

that it evokes further defense of the status quo (White & Miller, 2007). Instead, the therapist responds empathically to his or her resistance or ambivalence and directs the client to voice his or her own argument for change. The client's readiness to change is presumably determined by how important the client perceives the change to be and by how confident the client is about being able to successfully make the change. The client's confidence, termed *self-efficacy*, plays an essential role in motivating the client to change (Bandura, 1997). Therefore, the fourth primary principle of MI is supporting self-efficacy and enhancing the client's confidence in his or her capability to successfully change the target behavior. Unless the client believes he or she can change the problem behavior, there is little reason for him or her to face the problem.

Approaches that combine the core aspects and principles of MI with additional non-motivational interviewing techniques are referred to as an *adaptation* of MI (AMI). In the research, the most widely used AMI has been one in which the client is given feedback based on individual results from standardized measures, such as Drinker's Check-up (Miller, Sovereign, & Krege, 1988). The Drinker's Checkup (DCU) combines MI with personal feedback of assessment findings in relation to population or clinical norms. The feedback is integrated in a non-threatening way and possibilities for change are elicited from the client. This particular combination of MI with assessment feedback has developed into a manual-guided brief treatment, which is now termed *Motivational Enhancement Therapy* (Miller, Zweben, DiClemente, & Rychtarik, 1992).

MET is a systematic intervention approach for evoking change in problem drinkers. It is designed to produce rapid, internally motivated change. It employs the same principles and strategies as MI but is preceded by an assessment battery and treatment sessions may be preceded by a breath test to ensure sobriety (Project MATCH Research Group, 1997). MET

consists of four carefully planned and individualized treatment sessions. The first of the four sessions focuses on providing structured feedback from the initial assessment battery regarding problems associated with drinking, level of consumption and related symptoms, decisional considerations, and future plans. The following session is dedicated toward building client motivation and consolidating commitment to change. In the final two sessions, the therapist continues to monitor progress and encourage progress. The therapeutic process typically lasts 90 days (Project MATCH Research Group, 1997).

The MET approach addresses where the client is in the cycle of change and assists the individual in progressing toward successful sustained change. The contemplation and determination stages are considered the most critical within the MET framework. During the contemplation stage, therapists aim to help clients consider how much of a problem their substance using behavior is and how much it is affecting them. Helping the client tip the balance of pros and cons of drinking toward change is essential for moving from contemplation to determination. During this stage, the client also weighs the costs and benefits of behavioral change and assesses whether or not change is possible. In the determination stage, the therapist helps the client develop a firm resolve to take action through exploration of the client's past experiences and encouragement to do things differently. Understanding the stages of change model can help MET therapists empathize with the client and guide the choice of interventions.

MET is reportedly an effective outpatient treatment strategy, which requires fewer therapist-directed sessions than many alternative treatment modalities. Therefore, it may be particularly useful in situations where the client has limited access to sessions. Treatment outcome research strongly supports MET strategies as effective in producing change in problem

drinkers. MET can be utilized in outpatient and can also be applied in aftercare with appropriate adaptations (Project MATCH Research Group, 1997).

Considerable research has been conducted pertaining to the efficacy of MI, including primary studies, literature reviews, and meta-analyses (Lundahl, Kinz, Brownell, & Burke, 2010). One of the largest and well-known research trials that examined the efficacy of MI was Project MATCH (Project MATCH Research Group, 1997, 1998), which provided strong support for the efficacy of MI/MET in the areas of alcohol and drug addiction (Lundahl et al., 2010). Results from several meta-analyses found that MI treatments were superior for problems involving alcohol, drugs, and diet and exercise when compared to no-treatment or placebo controls (Burke, Arkowitz, & Menchola, 2003), and that using MI as a prelude to other treatment modalities was associated with better outcomes in substance abuse studies (Lundahl et al., 2010). In a meta-analysis comparing MI with other treatment conditions, small but statistically significant effects were found suggesting that MI is very likely to produce a positive advantage for clients and may do so in less time. When compared to other active treatments such as 12-step and CBT, the MI interventions took over 100 fewer minutes of treatment on average yet produced equal effects. This holds across a wide range of problem areas, including usage of alcohol, tobacco, and marijuana (Lundahl et al., 2010). Their analyses also suggest that MI is durable over time, with improvements being measured up to 2 years following treatment completion. Therefore, compared to other active and specific treatments in their review, MI was equally effective and shorter in length.

Other clinical trials have evaluated MI as a prelude to treatment and found that clients receiving MI showed double the rate of total abstinence three to six months after inpatient treatment (Brown & Miller, 1993) or outpatient for adults (Bien, Miller, & Boroughs, 1993) or

adolescents (Aubrey, 1998), relative to those receiving the same treatment programs without

initial MI. MI also significantly increased retention (Aubrey, 1998) and motivation for change as

judged by therapists unaware of group assignments (Brown & Miller, 1993).

MI was originally developed to treat substance use disorders but has since been tested

across a range of problem behaviors and it has found to be effective both in reducing

maladaptive behaviors (e.g., problem drinking, gambling, HIV risk behaviors) and in promoting

adaptive health behavior change such as exercise, diet, and medication adherence (Miller,

Benefield, & Tonigan, 1993). This indicates that the therapeutic style and mechanisms of

change implemented in MI are generalizable across human behavior. Additionally, the

effectiveness of MI becomes magnified when it is added to other active treatment methods

indicating its usefulness as treatment modality to be integrated with other evidence-based

methods. Overall, research on motivational interviewing suggests that is an evidence-based

psychotherapeutic treatment approach that is applicable across a wide variety of problems and is

complementary to other active treatment methods.

A testable theory of MI/MET's mechanisms of action is emerging (Aharonovich, Brooks,

Nunes, & Hasin, 2008; Moyers et al., 2007). In a discussion article by Moos (2007), he posits

that the active ingredients underlying MET are conceptually comparable to the social processes

that protect individuals from developing substance use disorders. He applied four related

theories that identify comparable protective processes including social control theory, behavioral

economics and behavioral choice theory, social learning theory, and stress and coping theory.

Active ingredients of MI and MET include the empathic and collaborative relationship between

the client and therapist and the goal directed nature of the interactions that take place throughout

the therapeutic process. Moos (2007) describes how these active ingredients are consistent with

social control theory's concepts pertaining to the role of positive social processes in reducing initiation and progression of substance use.

The emphasis MI/MET places on resolving clients' ambivalence to change is another proposed active ingredient of this approach and is consonant with behavioral economics theory, which focuses on the importance of participation in protective activities. Key processes within MI/MET also include emphasis on normative feedback pertaining clients' substance use patterns and a focus on highlighting discrepancies between current and desired behaviors. According to Moos (2007), this component of MI/MET is consistent with the theoretical assumptions of social learning theory, including the assumption that substance use is a function of positive norms and expectations derived from behaviors modeled by influential peers and family members.

Another proposed active ingredient of MI/MET is its explicit emphasis on strengthening clients' self-efficacy, sense of responsibility, and commitment to making and sustaining changes in substance use behaviors. Moos (2007) highlighted how this component of MI/MET is congruent with stress and coping theory which posits that substance use is a coping response used to stressful life circumstances and obligations (i.e., family, school, work).

Solution-Focused Brief Therapy. Solution-focused brief therapy (SFBT), also called solution-focused therapy, is an approach to treatment developed by Steve de Shazer and Insoo Kim Berg that focuses primarily on building solutions rather than exploring problems and their origins. With its roots in post-modern social constructionist thought, SFBT is built on the premise that there is no single absolute and objective truth, nor is there a universal cause or definition of a problem. Alternatively, knowledge and reality are believed to be subjective constructions based on a person's interpersonal interactions, personalized meanings, and interpretations of life experiences and events (White & Epston, 1990). When applied to

substance abuse problems, the social constructionist perspective challenges the commonly held belief that there exists one ultimate cause or general pattern of addiction. Accordingly, solution-focused therapists approach each substance-related problem or type of addiction differently depending on the individual client's personalized construction and understanding of the problem (Berg & Miller, 1992).

Fundamental to the solution-focused approach is the belief that the solutions to a problem may have little or nothing to do with the problem itself. As such, solution-focused therapists contend that an understanding of the problem is not necessary to change it (de Shazer, 1985). Therefore, rather than examining the cause and consequences of problems, conversations in therapy are directed toward discussing what the client wants, how change will come about, and what the client has already been doing in the service of enacting desired change. Engaging in solution-oriented dialogues is intended to promote the description and construction of more adaptive realities, which in turn, creates space for solution making (Davidson, 2014). Because talking about change is presumed to lead to change, solution-focused therapists continually encourage clients to engage in "change talk" throughout the therapeutic process (McCollum, Trepper, & Smock, 2003).

In addition to facilitating change talk and maintaining a solution-oriented focus, solution-focused therapists frame questions in a manner that presupposes that clients desire change in their lives, have the capacity to make desired changes, and will be successful in accomplishing their set goals. Clients are regarded as the experts in their own lives and are presumed to already posses some of the skills necessary for creating solutions to their problems. The therapist's role is to help clients access their own unique strengths and resources and construct individualized goals that will lead them to solutions. To assist clients in developing solutions, SFBT therapists

use a number of specialized interviewing procedures, including careful use of questions as a central intervention technique; in essence, each question is an intervention in and of itself (de Shazer, 1985; O'Hanlon & Weiner-Davis, 2003). Accordingly, SFBT therapists use specific language when formulating questions and make deliberate choices about what to highlight versus what to simply acknowledge without getting into further detail. SFBT therapists utilize three types of questions to elicit change in treatment: (a) scaling questions, (b) miracle questions, and (c) exception and coping questions (Berg & Miller, 1992).

Scaling questions are used to help clients measure the magnitude of their problem, their confidence in their ability to make changes, and their goal for where they would like to be after therapy is completed (Berg & Miller, 1992; Miller, Huble, & Duncan, 1996; O'Hanlon & Weiner-Davis, 2003). For example, a therapist may ask, "On a scale from 1 to 10, how confident are you in your ability to achieve your treatment goals?" This question may be followed by a question about what would need to happen for them to be one point higher on the scale. These questions are intended to foster discussion about the client's progress and to help determine how much change is necessary in order for clients to feel successful. Phrasing questions in this manner is more likely to orient clients toward success and achievement rather than keeping them stuck in a problem-saturated view of themselves (Linton, 2005).

Another type of question used in SFBT is the *miracle question,* which prompts clients to imagine what their lives would be like if a miracle occurred while they were sleeping and they woke up to find that their problem was gone. Clients are asked to describe, in detail, how they would know that the problem was gone, what they would be doing differently, and what others would notice as different about them. By imagining what their lives would be like if they had a solution to their problem and describing positive changes, they begin to create 'solution states'

which help to describe goals in positive and active terms, which are indirectly prescribed as interventions (de Shazer, 1985). Helping clients to think and talk about a positive future often directs the therapeutic process toward success and facilitates the clients' formulation of realistic and attainable goals (Berg & Miller, 1992).

In exception and coping questions, SFBT therapists inquire at length about exceptions to the client's presenting problem and coping skills used in the past (Roes, 2002). For example, a therapist may ask the client about times when a problem could have occurred but did not (e.g., looking for exceptions to the problem). The client and therapist then work together to identify what the client did in those situations that led to a problem-free experience. These questions help re-direct focus away from the problem and bring awareness to the times when the problem was under control (Berg, 1996; Berg & Miller, 1992). They also help identify solutions used in the past that they may be able to repeat in the future. Similarly, the therapist's use of coping questions is intended to orient clients to times when they have successfully coped with their problem. Exception and coping questions are intended to highlight what is already working in the clients' lives, identify their strengths, and direct attention toward positive solutions.

While using these and other questions, SFBT therapists seek to help clients focus on and attend to what they describe as important and helpful to them. In doing so, the SFBT aims to facilitate small changes that will presumably create a ripple effect leading to larger changes (Berg & Miller, 1992; de Shazer, 1985; O'Hanlon & Weiner-Davis, 2003). The absence of the problem is only seen as part of the solution and the SFBT therapist is concerned more with the positive behaviors that will replace the problem than the problem-behaviors themselves. Unlike traditional abstinence-based approaches, SFBT does not assume that abstinence is the only option for successful resolution of substance abuse problems. When abstinence is believed to be

the only remedy, the client's options are limited and multiple failed attempts to abstain from

substance use often contribute to a sense of hopelessness and pessimism about the prospect for

successful change (de Shazer & Isebaert, 2003). Because SFBT is concentrated on solutions

rather than problems, therapists and clients are able to explore any number of intervention

strategies to ameliorate substance abuse complaints (Berg & Miller, 1992). When multiple

remedies exist, a failed attempt at one only suggests that a different solution should be developed

and tried. Furthermore, unsuccessful outcomes are blamed on ineffective interventions rather

than a perceived deficit or failure on the part of the client. Because of its flexibility and

philosophy of 'doing what works,' SFBT can be used in conjunction with other, more traditional

approaches to substance abuse treatment or it can be used as a stand-alone approach (Linton,

2005).

Narrative Therapy. Narrative therapy is a postmodern psychotherapeutic approach that

utilizes narratives and storytelling as tools to help individuals and families with a wide range of

problems. Central to narrative therapy is the idea that people live their lives by stories they have

constructed about themselves and the world around them. These stories, or *self-narratives*, are

used to connect and derive meaning from the events and personal experiences in people's lives

and often have profound effects on how they think, feel, and behave (White & Epston, 1990).

According to narrative therapy, people encounter problems when the *dominant stories* by which

they are living their lives are incongruent with their perceptions of reality and how things should

be. Their stories become *problem-saturated* and parts of their lived experiences go unnoticed or

un-storied. The goal of narrative therapy is to help people discover alternative, preferred stories

and expand on them so that they play a more central role in the shaping of their lives (White,

1995).

In the initial stage of narrative therapy, the client is asked to describe the problem that brought him or her to treatment. While sharing this account of the problem, the client often reveals a self-narrative that is riddled with frustration or sadness and little to no hope for the future. Though this initial description of the client's experience is accepted and taken seriously, the narrative therapist simultaneously assumes that there are missing parts or additional stories that exist which may have been overlooked (Payne, 2006). When a person's dominant story is problem-saturated, it is said to be a *thin* description of his or her life experiences because it often leaves out parts of the story that are inconsistent with the dominant storyline (White, 1995). Therefore, a key component in narrative therapy is to help clients *thicken* their self-narratives and break free from the constraints of the problem-saturated narratives that have dominated their lives.

Following the client's description of the problem, the therapist initiates the process of *deconstructing* the dominant story. This is a process by which the dominant narrative is identified, taken apart, and re-examined from a different perspective so that new possibilities for creating alternative, preferred narratives can be discovered. The therapist begins by asking a series of clarifying and expanding questions that prompt the client to discuss his or her struggles in greater detail. The questions asked are intended to help get a sense of where the client's ideas about the problem came from, what dominant discourses have impacted his or her life, and how his or her perspective and experience of the problem have been formulated.

During the deconstruction process, and throughout the entire therapeutic encounter, emphasis is placed on helping clients separate themselves and their identities from the problem and problem-saturated stories they have constructed about who they are. This process of separating the client from the problem is referred to as *externalizing* and it provides the client

with a renewed sense of empowerment and self- agency. Using various systems of questioning and carefully selected language, narrative therapists encourage clients to objectify their problems and refer to them as external entities existing outside of themselves. Often clients are asked to assign the problem a specific name (or phrase), which is then used in future discussions when referring to the problem. This is intended to further emphasize the client's separateness from the problem (Beels, 2001). Naming the problem allows clients to shift their perspective of themselves from *having* a problem to having *a relationship* with the problem, which enables them to feel more in control of the problem and of their lives (White & Epston, 1990). Efforts are then focused toward transforming the relationship the client has with the problem rather than transforming the client.

To gain a full understanding of the problem and the role it plays in the client's life, the therapist engages the client in a process called *mapping the effects of the problem.* Specific questions are asked about how, and to what degree, the problem has affected various domains of the client's life (i.e., work, school, relationships) and the lives of his or her significant others. As the client shares his or her problem story, the therapist listens for gaps in the client's understanding of the problem and seeks additional details pertaining to the client's beliefs, feelings, and attitudes about the problem. The therapist helps the client identify the *dominant discourses*, or culturally and socially constructed stories, that have influenced his or her perspective of the problem and creation of the problem-saturated story. Exploring the effects of the problem in different contexts and examining the influences of dominant discourses facilitates the externalization process and enables the client to begin shifting his or her perspective.

As people begin to gain more distance from the problem-saturated story, they are more able to notice and identify aspects of their lives that contradict their original self-narrative.

These inconsistent events are referred to as *unique outcomes* and they are often used in the re-construction of a preferred narrative. Unique outcomes are events or experiences that are not part of the dominant, problem-saturated story (White & Epston, 1990). They are the times in the client's life when the problem did not exist, had less of an impact, or was more susceptible to the client's control over it. It is often difficult for a client to identify unique outcomes because they are frequently overlooked and overshadowed by the events that are more congruent with the problem-saturated storyline. Therefore, the therapist makes a concerted effort to listen for, and draw attention to, gaps and inconsistencies in the client's story.

Once a unique outcome has been identified and brought into the client's awareness, it is discussed in great detail. The client is asked to decide if the unique outcome is the *preferred story* and if the experiences, feelings, and behaviors surrounding it are more acceptable to him or her than those of the problem-saturated story. If so, the client and therapist begin the *re-authoring* or *re-storying* process, which involves placing the person's experiences in the new narrative and making the previously dominant story obsolete (Monk, Winslade, Crocket, & Epston, 1997; Morgan, 2000; White & Epston, 1990). During the re-authoring process, the person's life, relationships, and relationship to the problem are re-described (White & Epston, 1990). As the alternative story begins to develop, it will include various strategies and plans intended to strengthen the storyline and locate opportunities for the new story to take place. The new story will portray the client as empowered, strong, and capable of taking a stand against the problem rather than helpless, powerless, and defeated by the problem.

Written documents are commonly used in narrative therapy to summarize discoveries made in session, highlight clients' progress in making positive changes, and describe key elements of the clients' new and emerging self-narratives. Documents may take the form of a

letter, statement, list, or contract and they serve to extend the therapeutic work beyond the confines of the therapy room by providing a tangible resource for which clients can refer to in the future. They are used as a reinforcing device based on the recognition that the written word is more permanent and often carries more power and authority than the spoken word (Payne, 2006).

As narrative therapy has evolved over time, increasing emphasis has been placed on the importance of having an audience other than the therapist for the client to tell and re-tell his or her developing story to (Payne, 2006). When the time is right, the therapist will invite an audience into the therapy room to serve as 'outsider witnesses' in the client's sharing of his or her newly developing preferred self-narrative. The audience, or 'outsider witness team,' may consist of other therapists, significant people in the client's life, former clients with similar experiences, or a combination of these. The session is organized around several 'tellings' and 're-tellings' that begin with the client sharing his or her new evolving self-narrative. After listening to the client, members of the outsider witness team are asked to 're-tell' the client's story from their own perspectives while suspending judgment and avoiding giving advice. Following each member's 're-telling,' the client 're-tells' the 're-telling' wherein he or she tells the story again while incorporating the perspectives and experiences shared by the audience. This process is intended to further solidify the client's emerging preferred narrative and identity (Gehart, 2013). Therapy typically ends when the client decides that his or her self-narrative is thick and rich enough to sustain itself into the future.

Several authors have discussed the potential usefulness of integrating narrative therapy into substance abuse treatment protocols (Clark, 2014; Morgan, Brosi, & Brosi, 2011; Gardner & Poole, 2009). In her journal article, Clark (2014) highlighted the high prevalence of existing

research on CBT-based interventions for substance use disorders and proposes the need for additional research evaluating various theoretical approaches in order to improve treatment outcomes. Following from this assumption, Clark (2014) provided a rationale for integrating narrative therapy into substance abuse treatment protocols. She explained how narrative strategies can be adapted and implemented with substance abusing populations and describes two narrative-based interventions that can be utilized in an outpatient group therapy format.

The first intervention, entitled the *Narrative Novel*, is an activity wherein clients create three separate picture representations of themselves- one representing who they were during the worst part of their addiction (past identity), one representing their ideal selves (ideal identity), and the final representing who they are today (current identity). Clients are encouraged to share their representations with the group and reflect on the differences between the past and ideal self with regard to the impact of substance use. Following a group discussion, clients are given additional sheets of paper to construct their novel. The pictures of their past identities are used as the front covers to represent the beginning of their recovery stories and the pictures of their ideal identities are used as the back covers to represent the end of their stories of addiction. The clients choose where to place the picture representation of their current identities based on where they feel they are in regard to their recovery process. Clients then name their stories and reflect on where they were as opposed to where they are now and where they would like to be.

In addition to the Narrative Novel, Clark (2014) described the *Letter to Letting Go*, which is essentially a goodbye letter to the person's drug of choice. Based on the notion that people form relationships with their drug of choice in a similar way that they form relationships with people, clients are encouraged to conceptualize their substance use as they would any other destructive or harmful relationship in their lives. While writing their letter to their drug of

choice, they are instructed to first acknowledge the good times shared with the drug, then to address reasons why the relationship must come to an end. After the letters are written, clients are given time to either share with the group or process their emotional reactions in private.

Along with instructions for how to implement these interventions in a group substance abuse treatment setting, the author provided case examples to demonstrate the process and show how clients have reacted. She also provides a brief rationale for why these interventions may also be appropriate for use in individual settings and with other forms of addiction (i.e., behavioral). She reported that addictive behaviors are often accompanied by feelings of guilt, which frequently lead to the development of a narrative characterized by self-blame and further perpetuates the ongoing engagement in the harmful or addictive behavior. Narrative therapy provides and opportunity for people struggling with substance abuse issues to rewrite their self-narratives from a perspective that eliminates blame. Implied, but not explicitly stated, the process of removing self-blame may help in the recovery from addictive behaviors.

In a review article by Lyness (2002), the author addressed the disproportionately high rates of alcoholism and alcohol-related problems among the Alaska Native population and discusses a number of sociocultural factors that are likely to have contributed to this phenomenon. Among the explanations proposed is the loss of culture, or 'de-culturation,' that has resulted from the imposition of dominant white values on to the traditional Native ways of life. Also included in his article is a discussion of various risk and resiliency factors, barriers to treatment, and possible solutions for improving treatment delivery and outcome for this population of people.

An effective treatment protocol to implement when working with this particular population would likely include practices that are congruent with their native cultural values and

beliefs, such as focusing on balance, family, and spirituality (Lyness, 2002). Additionally, it is important for treatment providers to consider the array of potential barriers that may hinder positive treatment outcomes in Native populations. These may include differences in sociocultural belief systems, a lack of fit between the medical model and traditional ideas of health, ethnocentricity, de-culturation, social disintegration, and despair which may lead to mistrust among those who may seek services.

Of the Western approaches to therapy that exist, Lyness (2002) suggests that narrative therapy may be the most beneficial to use with Alaska Natives struggling with alcohol problems. Narrative therapy's focus on deconstructing the problematic stories of the dominant cultural narrative may be particularly relevant for subjugated and oppressed populations who have undergone acculturation difficulties and/or loss of culture. Those who have had the dominant White cultural narrative imposed upon them and their ways of living may benefit from the process of deconstructing and reconstructing their stories. Also, the use of ceremonies, rituals, symbolism, and letter writing in narrative therapy is congruent with many of the healing practices used by Native populations (Lyness, 2002).

Positive Psychology. Positive psychology is a branch of psychology dedicated to the scientific study of happiness and what makes life worth living. In addition to helping individuals overcome problems, positive psychology aims to identify the positive aspects of life and the human strengths and virtues that lead to a life of happiness, fulfillment, and flourishing (Schrank, Brownell, Tylee, & Slade, 2014). The field of positive psychology, in its contemporary form, seeks to re-direct the focus of psychology from a predominantly pathology and deficit-based approach to one that places equal emphasis on promoting health, growth, and wellness (Seligman, Steen, Park, & Peterson, 2005). In his 1998 presidential address to the American

Psychological Association, co-founder of positive psychology, Martin Seligman, proposed that clinical psychologists begin to expand their work and research efforts to include building positive human qualities and discovering ways to help individuals and communities thrive. Seligman contended that mental health is more than the mere absence of symptoms and disease and that by studying human strengths and wellness, in addition to human suffering, we will be able to create a more unified and integrated understanding of the entire breadth of human experience (Seligman, et al., 2005).

At its conception, the field of positive psychology was primarily concerned with studying what makes people happy and discovering how to acquire lasting and fulfilling happiness (Seligman, 2002). In Seligman's original theory, *Authentic Happiness*, he hypothesized that people make choices about how to live their lives based on what will maximize their overall level of happiness, or life satisfaction. According to positive psychologists, the concept of happiness encompasses a wide range of emotional and mental constructs and can be broken down into three distinct elements: positive emotion, engagement, and meaning (Seligman, 2002). Positive emotion refers to the pleasurable feelings we experience, such as comfort, ecstasy, and excitement. A life that revolves around maximizing positive emotion is referred to as the *pleasant life.* Achieving the pleasant life involves being mindful of positive emotions as well as heightening and savoring pleasurable experiences. The pleasant life is correlated with gratification and feelings of subjective happiness, which result from being content with one's past, experiencing positive emotions in the present, and feeling optimistic about one's future (Seligman, 2002).

The second element of happiness is engagement. Engagement is the core component of the *good life,* which goes beyond experiencing pleasure and encompasses happiness,

productivity, and good relationships. Achieving the good life involves identifying and building on one's core strengths and virtues and using them on a daily basis (Seligman, 2002). Utilizing one's core strengths and virtues allows for optimal engagement with life's primary activities (i.e., work, play, raising children) and affords the beneficial effects of immersion, absorption, and flow. The term *flow* is used to describe instances when there is a positive match between one's individual strengths and the task that he or she is currently involved in. When one experiences flow, he or she is fully engaged and immersed in an activity to the extent that distractions go unnoticed, self-consciousness is lost, and a sense of energy and enjoyment is attained (Seligman, 2002).

Proponents of positive psychology believe that all individuals are born with a set of core strengths, and in order to implement and bolster those strengths, one must understand the unique constellation of positive qualities that he or she intrinsically possesses. In an effort to facilitate assessment and implementation of one's core strengths, Seligman and his colleagues developed a scientific classification system for human strengths and virtues, entitled, *Character Strengths and Virtues: A Handbook and Classification* (CSV; Park, Peterson & Seligman, 2004). The CSV provides descriptions and classifications of the predominant strengths and virtues that enhance wellbeing and enable human thriving (Park et al., 2004). The classification system is broken down into six classes of core virtues, which are further subdivided by 24 underlying 'character strengths.' The six core virtues are universally valued traits that are based on a convergence of thoughts and ideals that span across thousands of years and across various cultures. They include wisdom and knowledge, courage, humanity, justice, temperance, and transcendence (Park et al., 2004). Each virtue encompasses 3 to 5 of the following 24 character strengths: creativity, curiosity, open-mindedness, love of learning, authenticity, bravery,

persistence, zest, kindness, love, social intelligence, fairness, leadership, teamwork, forgiveness, modesty, prudence, self-regulation, appreciation of beauty and excellence, gratitude, hope, humor, and religiousness (Park et al., 2004).

Character strengths are referred to as positive traits and capacities that human beings posses which allow them to think and behave in mutually beneficial ways. They are considered the "psychological ingredients" that define the virtues and serve as routes to manifesting them (Park et al., 2004). Character strengths are different from talents and abilities in that they have moral value, can be learned or developed, and take effort to cultivate (Seligman, 2002). Talents and abilities, on the other hand, are typically inherent and can only be fostered from what exists as opposed to what develops through concerted effort. For example, musical ability is considered a talent rather than a strength because it is inherent and can be strengthened, but not learned. Alternatively, patience is a strength that can be cultivated and may lead one to develop the virtue of temperance. The 24 character strengths included in the classification system are those that met the following criteria: (1) recognized across cultures; (2) contributes to individual's sense of fulfillment; (3) morally valued; (4) does not diminish others; (5) has obvious opposite negative trait; (6) trait-like in that it has some generality across situations and stability across time; (7) measurable; (8) distinct from other traits or virtues; (9) strikingly embodied in some individuals; (10) celebrated when present and mourned when absent; (11) the larger society provides institutions and associated rituals for cultivating them; and (12) there exist prodigies with respect to it (i.e., when children show a strength at a much earlier age than typical) (Seligman, Steen, Park, & Peterson, 2005).

The third element of happiness is meaning. The *meaningful life* is concerned with how individuals derive a sense of purpose, belonging, and positive wellbeing from being a part of

something that is larger and more permanent than them selves (e.g., belief systems, social groups, nature) (Seligman, 2002). When people are able to use their signature strengths and values to enrich the lives of others and become part of a worthwhile cause, they achieve a sense of purpose and belonging. Unlike achieving states of pleasure, to which human beings quickly habituate, achieving a sense of purpose contributes to deeper, long-lasting, and authentic happiness (Seligman, 2002). The meaningful life, therefore, is the highest level of happiness that one can aspire to.

In 2011, Seligman revised his original *Authentic Happiness Theory* to include an additional two components (relationships and accomplishments) that lead to a good life. His updated theory was re-named *Well-being Theory* and includes the mnemonic PERMA, which stands for positive emotions, engagement, relationships, meaning, and accomplishments (Seligman, 2011). While still concerned with the construct of happiness, positive psychologists now conceptualize happiness as only one component of a more expansive understanding of what constitutes a fulfilling life. Another alteration made to the original theory is the idea that the 24 strengths and virtues underpin all five elements of PERMA, not just engagement, as had been previously described in authentic happiness theory.

In their quest to understand the mechanisms of successful therapeutic outcomes, positive psychologists identified the use of what they refer to as "deep strategies." According to positive psychologists, deep strategies, such as instilling hope, fostering strengths, and providing narration, are used instinctively and intuitively by all effective therapists, regardless of their theoretical orientations (Joseph & Linley, 2005). In addition to implementing deep strategies, positive psychologists utilize positive psychology interventions (PPIs) to promote optimal functioning in their clients. PPIs are intentional activities aimed at increasing subjective levels

of happiness and wellbeing through strengthening psychological resources and cultivating positive emotions, cognitions, and behaviors (Sin & Lyubomirsky, 2009). Among commonly used PPIs is the 'Three Good Things' exercise, which involves daily journal entries wherein the individual writes about three things that went well during the day and their causes. This exercise, and others that are similar to it, are designed to draw attention to, and evoke gratitude for the positive things that exist in life. Positive emotions such as gratitude, confidence, optimism, hope, and trust, have been found to enhance wellbeing, promote longevity, and lessen the effects of negative experiences (Seligman, 2002).

Another standard practice of positive psychology is the implementation of strengths assessment. Based on the virtues and strengths categorized in the CSV, the 'Values-in-Action Inventory of Strengths' (VIA-IS) was developed by Peterson and Seligman (2004) as a tool to identify an individual's unique constellation of 'signature strengths.' The VIA-IS is a 240-item self-report questionnaire measuring 24 internal strength dimensions (e.g., creativity, curiosity, gratitude, leadership, humor, etc.). Results from the questionnaire are used to illuminate the individual's personal qualities and identify avenues for which he or she may be able to utilize them in daily life.

The literature on positive psychology does not currently contain an established theory specific to substance abuse or its treatment, however, inferences can be drawn from the assumptions that underlie Seligman's theories on happiness and wellbeing that may be useful in understanding substance abuse from a positive psychology conceptual framework. For example, in discussing the components of authentic happiness, Seligman & Pawelski (2003) argue that beyond experiencing positive emotions, people want to feel entitled to their positive emotions. In order to do so, individuals must utilize their personal strengths and values in their daily

activities. Engaging in behaviors that have been created as 'shortcuts' to positive emotion, such as substance use, gambling, overeating, and loveless sex, may create momentary feelings of pleasure but ultimately do not lead to authentic happiness. Furthermore, consistently relying on shortcuts to happiness often results in spiritual starvation and ultimately, an unfulfilling and inauthentic life (Seligman & Pawelski, 2003).

In a study exploring the relationship between the pursuit of each pathway to happiness (pleasure, engagement, and meaning) and wellbeing, Schueller and Seligman (2010) found that orientations toward engagement and meaning were more strongly correlated with measures of both subjective and objective wellbeing than an orientation toward pleasure. Engaging in activities that increase engagement and meaning help build psychological and social resources and orient people toward valuable goals and achievement, which, in turn, boosts happiness and wellbeing. On the other hand, while engaging in pleasurable activities may enhance momentary subjective happiness or positive emotion, it does not build personal resources, strengthen skills or contribute to a sense of purpose. Furthermore, many pleasurable activities represent a compromise between short-term and long-term goals and may ultimately sabotage achievement of long-term goals (Schueller & Seligman, 2010).

Several systematic reviews of the literature have been conducted on positive psychology and substance use disorders (Krentzman, 2013; Selvam, 2015; Webb, Hirsch, & Toussaint, 2015). In Krentzman's (2013) review, she examined and described the existing literature pertaining to positive psychology as it has been applied to substance use, addiction, and recovery. A total of nine studies were located wherein addiction was the primary topic of interest and positive psychology was explicitly identified as the conceptual framework used. These were organized and discussed according to five overarching themes: "theoretical

propositions, character strengths and drinking, positive psychology and recovery, positive

interventions applied to addiction, and addiction: feeling good and feeling bad" (p. 157).

In another systematic literature review, Selvam (2015) identified which character

strengths of positive psychology are most prevalent in the addiction-spirituality literature and

explored the themes that emerged from this body of literature. The review included data from 53

peer-reviewed articles, which were analyzed using a qualitative thematic analysis (QTA). This

process included a series of four steps, including initial coding, axial coding, thematic

identification, and report writing (Selvam, 2015).

Chapter Four: Synthesis and Critique of the Literature

The following section contains a critique of the existing empirical, theoretical, and review literature relevant to strengths based approaches to substance abuse treatment. First, a critical analysis of the empirical research pertaining to each of the strengths-based approaches (MET, SFBT, Narrative Therapy, Positive Psychology, Strengths-Based Perspective) is presented separately under its corresponding sub-heading and according to the following sections: *Research Design, Research Objective, Population, Sample, and Setting, Interventions and Format, Outcome Measures, Data Analysis and Results*. Presented next is a review and evaluation of the key findings relevant to the body of literature as a whole, followed by methodological and conceptual critiques. The final topic presented is an evaluation of how strengths-based treatment is congruent with culturally competent practice.

Critical Analysis of MET Empirical Research

Research design. A total of 23 publications relevant to MET and substance abuse treatment were reviewed and critiqued including two theoretical articles, one literature review, and twenty empirical studies. The 20 empirical studies included in the critical analysis consisted of 11 experimental studies, which were all randomized controlled trials. The nine non-experimental studies included five secondary analyses of randomized controlled trials, two correlational longitudinal designs, one retrospective long-term outcome study, and one archival study using a pre-test/post-test within groups design.

Research objective. To better understand how MET works, several researchers have conducted studies aimed at examining the proposed mechanisms of change operating within this modality. For instance, LaChance, Feldstein Ewing, Bryan, and Hutchison (2009) evaluated the role of six proposed mediators of change in a group MET treatment protocol for alcohol use

among college students in an alcohol diversion program. The proposed mediators of change included readiness to change, self-efficacy, perceived risk, norm estimates, and positive drinking expectancies. Other researchers have examined the role of direct interventions (i.e., eliciting 'change talk') used in MI/MET as an active mechanism of change in reducing alcohol use (Morgenstern, Kuerbis, Amrhein, Hail, Lynch, & McKay, 2012), as well as the role of two core principles of MI (therapist focus on ambivalence and commitment, and therapist focus on goal assessment) in reducing alcohol use (Magill, Stout, & Apodaca, 2013). In another study, Karno (2007) examined the role of session attendance as a mediator of the effect of therapist confrontation on patients' alcohol use.

Along with the effects of client traits and attributes, researchers have examined the impact of the therapeutic alliance on treatment outcomes. Richardson, Adamson, and Deering (2012) investigated the relationship between therapeutic alliance (TA) and treatment outcome for alcohol dependent clients who participated in an MET condition compared with those who participated in a Non Directive Reflective Listening (NDRL) control condition.

Efficacy with specific populations. Building upon previous research wherein MET was found to be efficacious in increasing treatment retention and decreasing substance use in large heterogeneous samples, a number of studies have been conducted to examine whether MET would be efficacious with more specific populations. For example, Dieperink, Fuller, Isenhart, McMaken, Lenox, Pocha, Thuras, and Hauser (2014) evaluated MET's efficacy in decreasing alcohol use among veteran patients with co-morbid hepatitis C virus (HCV) and alcohol use disorders. In Slesnick, Erdem, Bartle-Haring, and Brigham's (2013) study, the researchers examined the efficacy of three theoretically distinct interventions (CRA, MET, and EBFT) among substance-abusing runaway adolescents, and Winhusen et al. (2008) evaluated the

efficacy of a three-session MET intervention compared with treatment as usual (TAU) in increasing treatment utilization and decreasing substance use among pregnant substance abusers. To evaluate the efficacy of MET on reducing substance use and increasing treatment retention among African American participants, Montgomery, Burlew, Kosinski, and Forcehimes (2011) conducted a secondary analysis of the RCT Project MATCH (1998).

Effectiveness studies. In addition to efficacy studies, numerous effectiveness studies have been conducted wherein researchers compared MET with counseling as usual (CAU) in clinical outpatient settings (Ball et al., 2007; Noknoy et al., 2010; Sellman et al., 2001; Willerick, 2012). The effectiveness of MET has been tested with a number of specific populations, including Spanish-speaking Hispanics (Carroll, et al., 2009), Native Americans (Villanueva, Tonigan, & Miller, 2007), and homeless adolescents (Peterson, Baer, Wells, Ginzler, & Garrett 2006). Other researchers have been interested in the long-term effects of MET and have conducted follow-up studies to determine whether MET's effects would be sustained after five years (Adamson & Sellman, 2008).

Population, sample, and setting. The two multi-site randomized controlled trials included five outpatient substance abuse programs (Ball et al., 2007; Carroll, et al., 2009). Ball et al.'s (2007) study included 461 participants with an average age of 35 years, respectively. Their sample was comprised of 41.9% Caucasians, 42.1% African Americans, 10.6% Hispanic Americans, and 5.4% who identified as "other." Carroll et al.'s (2009) study included a sample of 405 Spanish-speaking Latino participants with an average age of 32 years. The majority of the participants in the study were male (88.4%). Noknoy et al.'s study included 117 participants who were receiving treatment for hazardous drinking at eight different Primary Care Units located in Thailand. Ages of the participants ranged from 18 to 60 and the sample was

comprised of mostly male participants (91%). The participants in Dieperink et al.'s study (2014) were recruited from hepatitis clinics at two Veterans Affairs Health Care System locations in the Minnesota and Oregon. Their study included 139 veteran patients with hepatitis C virus (HCV) and a co-morbid alcohol use disorder. The sample was comprised of 67.3% Caucasians, 29.7% African Americans, and 2.9% Native Americans. The majority of participants were male (95.6%) and the average age was 55, respectively. Participants in Slesnick et al.'s (2013) study consisted of 179 runaway adolescents ranging in age from 12 to 17 years, who were recruited from a shelter in a mid-western city in the United States. The majority of the participants were African American (65.9%), with another 26% being non-Hispanic whites, 1.7% Hispanics, 1.1% Native Americans, 0.6% Asian/Asian American, and 5% who identified as "other." Their sample included a balanced mix of female and male participants and the majority of the adolescents were still enrolled in high school (81.6%). LaChance et al.'s (2009) randomized controlled trial was conducted with 206 college students with an average age of 18.6 who were mandated to a university alcohol diversion program. Their study took place in the student health center at Western University and was comprised of 88% Caucasians, 7% Hispanic, Asian, or African American, and 5% whose race or ethnicity were unidentified. Sixty-three percent of their sample was male.

Sellman et al.'s (2001) study was conducted in a community-based alcohol and drug service located in a Christian church in New Zealand. Their study included 122 subjects with an alcohol use disorder who ranged in age from 15 to 59 ($M = 35.7$). There were slightly more male than female participants (57.4%) and 13.9% were Maori ethnicity. The race or ethnicity of the other participants was not disclosed. Winhusen et al.'s (2008) study included 200 pregnant women who were attending outpatient substance abuse treatment at 4 different community

treatment programs. The participants were, on average, 26 years old and around 20 weeks

pregnant at the time of randomization. The sample was fairly diverse in terms of race and

ethnicity. Most participants were unmarried, unemployed, and had an average of 12 years of

education. Peterson et al.'s (2006) study was conducted at two field-site offices with a sample of

285 homeless adolescents ranging in age from 14 to 19 years old. Participants were recruited

from street intercept locations or from community agencies serving homeless. Slightly over one

half of the participants were male (54.7 %) and the majority self-identified as Caucasian

(72.3%), while 15.9% self-identified as "mixed," 3.2 % as African American, 3.2% Native

American, 3.2% Hispanic or Latino, and less than 1% as Asian/Pacific Islander, or other. Their

study also included information pertaining to the participants' sexual orientations. Within the

sample 67.4% of the participants self-identified as heterosexual, 4.5% as gay or lesbian, and 24.4

% as bisexual. Feldstein Ewing et al.'s (2009) study included 75 college students who were

recruited using fliers asking for participation in an 'alcohol study.' The sample was comprised

of 68% males and most of the participants were Caucasian (87%). The average age among the

participants was 21 years old and less than 23% had alcohol use problems. Morgenstern et al.'s

(2012) study included 89 adult participants with diagnosed alcohol use disorders seeking help to

reduce drinking behaviors. Richardson et al.'s (2012) correlational longitudinal study included

69 alcohol-dependent participants participating in an RCT ranging in age from 17 to 69 years

old. A little over half of the participants were male (54%), 10% were Maori ethnicity, 38% were

married, and most had an average of 12 years of education. Willerick's (2012) archival study

included data from 82 participants who had received treatment at a university substance abuse

clinic. The majority of the participants were male (70.7%) and ranged in age from 18 to 58 years

old ($M = 31$). Most of the participants were Caucasian (74.4%), 9.8% were African American, 1.2% were Hispanic, 1.2% were Asian/Pacific Islander, and 2% identified as "other."

Adamson and Sellman's (2008) retrospective study was conducted using data collected from 77 of the 125 patients used in Sellman et al.'s (2001) study of alcohol dependent adults. Compared with those who were not successfully followed up with after five-years, those that completed the five-year follow-up were older, more educated, and had lower rates of co-morbid mental health disorders. Four studies conducted post-hoc analyses of data collected in Project MATCH (Arroyo et al., 2003; Karno, 2007; Magill et al., 2013; Villanueva et al., 2007; Witkiewitz et al., 2010). Among these four studies, two analyzed data specific to ethnic minority populations. For example, Villanueva et al. (2007) collected data from 25 Native American participants who participated in the outpatient and after care treatment arm of Project MATCH and Arroyo et al. (2003) compared 100 Hispanic participants with 105 non-Hispanic white participants from the Albuquerque, New Mexico site within Project MATCH. Both Magill et al. (2013) and Witkiewitz et al. (2013) used the entire data set from Project MATCH ($N = 1,726$). In another study, data were collected from 194 African American subjects who participated in an RCT conducted by NIDA (Montgomery et al., 2011).

Interventions and format. Three studies implemented a group therapy format (LaChance et al., 2009; Peterson et al., 2006; Willerick, 2012) and the remaining studies implemented an individual format consistent with the treatment protocol described in the MET treatment manual. Most of the studies adhered to the treatment protocol included in the MET treatment manual, which consists of four carefully planned and individualized treatment sessions. The first two sessions focus on providing clients with structured feedback about the results from assessment measures administered prior to treatment. During these initial sessions,

therapists address the clients' future plans and assess their motivation for change. The following two sessions, which take place at the middle and end of treatment, focus primarily on reinforcing client progress, encouraging re-assessment of motivation for change, and providing an objective perspective on the client's process of change (MET manual). The five basic motivational principles that underlie the approach include expressing empathy, developing discrepancy, avoiding arguments, rolling with the resistance, and supporting self-efficacy (MET manual).

Six of the studies delivered three to four individual MET sessions (45-60 minutes each) (Ball et al., 2007; Carroll et al., 2009; Dieperink et al., 2014; Magill et al., 2013; Sellman et al., 2001; Winhusen et al., 2008). Noknoy et al. (2010) also conducted three individual sessions, however, each session was only 15 minutes long. Three studies employed a single session of group-based MET, ranging in length from 90 minutes to 3 hours (LaChance et al., 2009; Peterson et al., 2006; Willernick, 2012).

Outcome measures. In 18 studies, frequency and intensity of substance use was measured using one of the following: the *Form 90 Interview*, the *Substance Use Calendar* (SUC) or the *TimeLine Follow Back* interview (TLFB; Sobell & Sobell, 1992). Each of these self-report measures utilizes a calendar system to track changes in substance use over time and has demonstrated good or excellent measurement reliability and validity. Five of these studies also used urine or blood samples to corroborate the participants' self-reported substance use. In addition to frequency of use, three studies also measured alcohol related problems using one or more of the following measures: the *Drinking Inventory of Consequences* (DrInC; Miller et al., 1995), the *Rutgers Alcohol-related Problem Index* (RAPI*;* White & Labouvie, 1989), and the *Alcohol Problems Questionnaire* (APQ; Drummond, 1990). Treatment retention was a primary outcome measure in three studies and was assessed based on the participants' number of days

enrolled in the treatment program. Similarly, treatment utilization was a primary outcome

measure in one study and was based on clinic records of treatment attendance. Several studies

also included the URICA to measure level of motivation to change or the *Stages of Change*

Readiness and Treatment Eagerness Scale (SOCRATES; Miller & Tonigan, 1996) to measure

readiness to change. Additionally, Arroyo et al. (2003) administered the *Acculturation Rating*

Scale for Mexican Americans (ARSMA; Cueller et al., 1980) to determine their participants'

level of acculturation. Richardson et al. (2012) measured therapeutic alliance using a 4-item

questionnaire reported to have excellent internal reliability ($\alpha = .94$). The researchers also used

the *Leeds Dependence Questionnaire* (LDQ; Raistrick et al., 1994) to measure severity of

dependence.

Data analysis. Adamson and Sellman (2008) used a chi-square analysis of variance

(ANOVA) to compare characteristics of those successfully re-interviewed at 5-year follow-up.

To determine if salient ethnic characteristics were balanced across therapy conditions, Arroyo et

al. (2002) conducted a preliminary 2 x 2 MANOVA with continuous measures of client drinking

and attributes at baseline, and 2 x 2 chi-square analyses for categorical variables at baseline. The

researcher then conducted another series of MANCOVAs and chi-square analyses to determine

ethnic by treatment-matching effects.

Ball et al. (2007) analyzed treatment retention measures and urine drug outcomes using a

two-factor fixed effect ANOVA with the intent-to treat sample. The self-report measures of

substance use were analyzed using a longitudinal analysis of days per week of each participant's

substance use from baseline through 16-weeks. Chi-square and ANOVA analyses were

conducted to evaluate differences between therapy conditions and treatment sites. Researchers

in Carroll et al.'s (2009) study used a longitudinal mixed model analysis to evaluate change in

frequency of substance use over time. Dieperink et al. (2014) used mixed-effects models to examine change over time for their primary outcome measure (efficacy of MET in reducing alcohol use). Secondary analyses were conducted using chi-square procedures to test for differences in antiviral treatment initiation and regression analyses to examine relationships between reductions in alcohol use. The Wilcoxon signed-rank test was used to evaluate changes in abstinence from baseline to 6-months.

LaChance et al. (2009) assessed for pretest equivalence of conditions across demographics and baseline measures via ANOVAs. Magill et al. (2013) examined client baseline and therapist predictor descriptives based on means, standard deviates, and frequencies. Therapist intervention effects on alcohol use were examined with a series of multilevel models, while controlling for the effects of baseline alcohol use and the linear effect of time. Montgomery et al. (2011) conduced a longitudinal analysis using mixed modeling to determine treatment difference. Noknoy et al. (2010) analyzed categorical and continuous outcome data using chi-square tests and independent t-tests. Multiple regression analyses were also conducted to further explore study findings. Slesnick et al. (2013) used hierarchal linear modeling to determine improvement in frequency of substance use and a latent trajectory profile analysis to explore individual differences in change trajectories. The primary outcome measure in Winhusen et al.'s (2008) study was analyzed using a Cox Proportional hazards model with the log of the number of scheduled hours and the type of patient as covariates. Witkiewitz et al. (2010) utilized a Growth Mixture Modeling strategy to analyze individual variability in the process of change across time.

Results. Of the six proposed mediators of treatment outcome evaluated in LaChance et al.'s (2009) study, their findings indicated that self-efficacy was the only significant mediator of change within their sample of college students. Findings from Morgenstern et al.'s (2012) study indicated significantly increased change-talk in MI relative to conditions wherein the directive elements of MI were not incorporated (SOMI and SC). All three conditions in their study yielded equivalent outcomes at the end of treatment and the MI and SOMI conditions yielded equivalent outcomes at one-month post follow-up. Differences in outcome across conditions were small and SOMI had slightly better outcome at end of treatment than MI. Compared with the other conditions, MI resulted in more rapid reductions in drinking in the first two weeks of treatment. Drinking reduction was more gradual in the other two conditions but outcomes were eventually equivalent. MI's superior effects relative to SOMI were mediated by an increase in change-talk, which resulted from experimental manipulation of therapist directive interventions.

Contrary to their expectations, Magill et al. (2013) found that therapist's focus on ambivalence across four sessions of MET was not a consistent predictor of reduced drinking frequency. Alternatively, therapist's focus on ambivalence was found to be a contraindicated treatment ingredient in relation to drinking quantity, especially among those in the outpatient arm of the study with low motivation. Therapist's focus on commitment, on the other hand, was associated with improved drinking outcomes across all participants, and across both measures, suggesting that focus on commitment is an independent active ingredient within the study's sample. Therapists' foci on ambivalence and commitment were consistently significant putative ingredients of MI/MET, whereas the relationship style variable of MI/MET was consistently non-significant. Therapist's assessment of client goals and drinking was associated with worse drinking quantity among participants in the aftercare arm but not among those in the outpatient

arm. Therapists' foci on ambivalence and commitment were independent of processes of goal assessment.

Findings from Karno's (2007) study suggest that session attendance was a partial mediator of the effect of confrontation on future alcohol use among patients who received CBT, but not among patients who received MET or TSF. No other potential mediators were supported in CBT. These results suggest that reduction in the number of sessions attended in CBT partially explains the negative impacts of confrontation early in treatment.

Moderators of treatment. Results from Arroyo et al.'s (2003) study wherein researchers examined the influence of ethnicity on treatment outcomes across three evidence-based treatment modalities (MET, TSF, CBT), indicated that Hispanic participants responded similarly to each of the three treatment conditions. Comparison of treatment outcomes between Hispanics and non-Hispanic whites indicated that non-Hispanic whites fared significantly better than Hispanics in the TSF group with regard to intensity of drinking. Their evaluation of the importance of acculturation in the Hispanic sample generated mixed results. Acculturation was significantly related to drinking intensity but not to drinking frequency in the 90 days prior to treatment. Specifically, Hispanic participants who were less acculturated drank significantly more heavily on drinking days relative to more acculturated Hispanics.

Investigation of the two proposed moderators (specific genetic dopamine receptors and individual risk factors) in Feldstein Ewing et al.'s (2009) study indicated that increased behavior change during the first 30 days after treatment were stronger among participants who scored low on impulsivity and sensation seeking, low in novelty seeking, or had the S genotype of the DRD4 VNTR polymorphism (Ewing et al., 2009). MET was not found to be effective in reducing alcohol use among participants who were high on impulsivity and sensation seeking, high on

novelty seeking, or for those that had the DRD4L genotype. MET only resulted in drinking reductions among those who demonstrated lower impulsivity, lower novelty seeking, or had the DRD4 S genotype.

Other client attributes found to moderate MET treatment outcome were motivation to change and level of alcohol dependence. Witkiewitz et al. (2010) found that clients with lower baseline motivation to change drinking habits who were assigned to MET had better outcomes over time than those assigned to CBT. Additionally, participants with below average alcohol dependence who were assigned to MET reported less frequent drinking over time compared to those assigned to CBT, who reported more frequent drinking over time. When examining gender differences within their sample, they found that males with low baseline motivation with above average alcohol dependence had significantly worse treatment outcomes if assigned to MET compared with those assigned to CBT.

In Richardson et al.'s (2012) study, therapeutic alliance (TA) was significantly correlated with the Alcohol Problem Questionnaire (APO) at 6 months and with change in APO scores between baseline and 6 months. Correlations remained significant when treatment assignment was controlled for. No significant differences were found between the two treatment conditions on measures of percentage of days abstinent (PDA) and drinks per drinking day (DDD) at baseline or 6 weeks, or with APQ and LDQ scores at baseline. High retention rates were observed among participants in both treatment groups (84%). Measures of therapeutic alliance were significantly higher for participants who attended all four sessions compared with those who attended one to three sessions and the mean TA was scored higher among those in the MET condition compared to those in the NDRL condition, however, the relationship was not

significant. Finally, TA was correlated with change in PDA between baseline and 6 weeks, indicating that the greater the TA, the greater the increase in PDA.

     Efficacy of MET with specific populations. Results from Dieperink et al.'s (2014) study of MET among veterans with hepatitis C virus indicated significant increases in percentage of days abstinent (PDA) overall and a significant group x time effect. Those in the MET group showed a greater increase in percentage of days abstinent at 6 months compared with the education control condition. Slesnick et al. (2013) also found MET to be effective in reducing frequency of substance use among a sample of substance-abusing runaway adolescents. Few differences were found among the three treatment conditions in their study (MET, CR, EBFT), but those in the MET condition showed a quicker decline in substance use and a faster relapse compared with those in the EBFT condition.

     In Winhusen et al.'s (2008) study, MET was not more effective than TAU in increasing treatment utilization or decreasing substance use among their sample of pregnant women. In their evaluation of the impact of minority status on treatment outcome within this sample, they found that minority patients were less likely to receive an initial treatment session and attended fewer weeks of treatment during the first month compared with non-minority patients. A significant interaction was also found between minority status and treatment interaction with regard to self-reported substance use. Compared with non-minority patients, minority patients in the MET condition reported a greater decrease in substance use.

     Results from Montgomery et al.'s (2011) secondary analysis indicated that MET did not reduce substance use among African Americans. There were no significant main effects of treatment condition or treatment condition x site interactions. While MET was not shown to be effective in reducing substance use among African Americans, results from their study indicated

that African American women in the MET group had higher retention rates than those in the CAU group. There were no significant differences in retention rates found between men in the MET and CAU groups.

Effectiveness studies. Key findings from Ball et al.'s (2007) study suggest that MET was equally effective as CAU in improving treatment retention and decreasing substance use among their adult sample of substance users. Interactions between therapy condition, time (in weeks), and therapy phase indicated that both MET and CAU resulted in significant and comparable reductions in substance use during the active therapy phase (4-weeks); however, only the MET group sustained treatment gains over 12-weeks. Alternatively, CAU was associated with significant increases in substance use over 12-week follow-up. In Noknoy et al.'s (2010) study, MET was found to be superior to CAU in reducing frequencies of daily and weekly hazardous drinking and of binge drinking episodes at 3- and 6-month follow-ups. However, there were no significant differences found between the two groups with regard to frequency of being drunk and both treatment conditions exhibited low incidence of alcohol-related consequences in the 6-month follow-up period.

In another study, MET was found to be superior to non-directive reflective listening (NDRL) and to a feedback only/no further treatment condition in reducing unequivocal heavy drinking (UHD), and equally effective in increasing general functioning in a sample of alcohol abusing adults (Sellman et al., 2001). Willernick's (2012) study generated mixed results. Participants reported decreased substance use during treatment but the magnitude of change did not reach clinical significance. Additionally, no statistically significant changes in readiness to change or self-efficacy were observed. There was, however, a statistically significant increase in change-oriented talk suggesting an increase in desire and intention to reduce substance use.

Researchers in LaChance et al.'s (2009) study compared drinking outcomes among college students assigned to alcohol diversion programs. As hypothesized, results indicated that group-delivered MET was superior to alcohol education groups (FAC and AI) in reducing problem drinking outcomes. Specifically, those who participated in the GMET condition demonstrated significantly lower hazardous drinking symptoms, fewer alcohol-related problems, and lower average drinks per day compared to those in the two alcohol education conditions (LaChance et al., 2009). Findings from Ewing et al.'s (2009) study indicated that the MET group had a slightly larger decrease in the number of days of heavy drinking compared the AE control group, but these differences were not significantly different. While drinking outcomes were similar across groups, those in the MET group reported being significantly more likely than the AE group to have taken action to reduce their alcohol use.

Effectiveness of MET with specific populations. Carroll et al. (2009) conducted a multisite randomized effectiveness trial to compare the effectiveness of MET and CAU in increasing treatment retention and decreasing substance use among Spanish-speaking Hispanic substance users. Results from this study suggested good overall retention and substance use outcomes in both the MET and CAU conditions across treatment sites. There were no significant main effects of treatment condition or treatment condition x site interactions. Similar to results from the original trial conducted in English, outcomes from this study showed that MET was not more effective than CAU for the full sample. Within the group of participants whose primary substance of abuse was alcohol, there was a significant effect for treatment condition of days of alcohol use by week (Carroll et al., 2009). Additionally, there was significant variability among sites with regards to types of substances used and demographic characteristics, including employment status and involvement in the criminal justice system.

Key findings from Villanueva et al.'s (2007) study suggest that Native Americans assigned to MET reported significantly less drinking intensity (PDD) relative to those assigned to CBT or TSF, with the highest proportion of days abstinent and lowest drinking intensity at both follow-up periods. There were no significant differences in level of engagement among treatment conditions in the Native American sample. Furthermore, obvious mechanisms of change were not supported, as there were no between-treatment differences found for therapeutic alliance, number of sessions attended, or overall treatment satisfaction. Therefore, there was no evidence to support that Native American clients rejected either the TSF or CBT approaches, but rather, these approaches yielded less promising results when compared with MET.

Critical Analysis of SFBT Empirical Research

Research design. A total of eleven publications relevant to SFBT and substance abuse treatment were reviewed and critiqued, including seven review articles, and four empirical studies. The four empirical studies included one randomized experimental design, two pre-experimental (single case) designs, and one program evaluation (de Shazer & Isebaert, 2003; Polk, 1996; Smock et al., 2008; Spilsbury, 2012).

Research objective. While all four studies aimed to evaluate the effectiveness of SFBT in treating people with substance use disorders, the specific aims and objectives varied across studies. Two of the studies (Smock et al., 2008; Spilsbury, 2012) focused primarily on decreasing depression and increasing pro-social behaviors as means to decrease substance use. The rationale for targeting depression rather than substance-related behaviors was based on previous research findings indicating high rates of co-morbidity between depression and substance use disorders and correlations between decreased depression and decreased substance

use. Researchers in both studies used objective measures to assess for pre-to-post treatment

changes in depression (i.e., BDI; DASS).

The specific aim of Polk's (1996) study was to evaluate the effectiveness of SFBT in

increasing the frequency of days abstinent from alcohol and improving work attendance. In

another study, the researchers aimed to evaluate the effectiveness of a SFBT-based program in

maintaining self-selected treatment goals of either abstinence or controlled drinking (de Shazer

& Isebaert, 2003). All studies specify alcohol as a problematic substance of choice among

participants except for the study by Smock et al. (2008) wherein the term "substance abuse" is

referred to without specification of substance type.

Population, sample, and setting. All four studies were conducted in a clinic or hospital

setting and included an adult population with ages ranging from 18 to 74 years old. The two

single-case designs (Polk, 1996; Spilsbury, 2012) included a single male participant, while the

other two studies (de Shazer & Isebaert, 2003; Smock et al., 2008) used sample sizes ranging

from 38 to 200 and included both male and female participants. Only Smock et al.'s (2008)

study provided information about the participants' race or ethnicity, whose sample was

comprised of 17 Caucasians, 11 African Americans, eight Hispanics, and two Native Americans.

Interventions and format. A fundamental component of the SFBT approach is its use

of various types of questioning, each of which is intended to elicit specific kinds of responses

from clients. Consistent with the SFBT model, each of the four studies reported the use of

future-oriented questions, exception questions, scaling questions, and the miracle question.

Additionally, two of the four studies specifically addressed pre-session changes (Smock et al.,

2008; Spilsbury, 2012) and one of the studies provided a feedback session with the clients to

review progress and recognize clients' achievements (Smock et al., 2008). While only Smock et

al.'s (2008) study explicitly discussed its adherence to the SFGT treatment manual, the type and number of interventions used in the other studies indicate adequate treatment fidelity. With the exception of the two single-case design studies, all treatment interventions were delivered in a group format. Smock et al.'s (2008) study was the only one to utilize a treatment comparison group and evaluate both between-group and within-group differences.

Outcome measures. Self-report measures in the form of questionnaires or interviews were used to evaluate the effects of treatment in each of the studies. Smock et al.'s (2008) study was the only one to use outcome measures with established reliability for substance abusers. Specifically, they used the OQ 45.2 to measure treatment effectiveness on interpersonal functioning, symptoms distress, and social role and the BDI to measure depressive symptoms. The researchers also used the SASSI-3 as a screening device to classify subjects' probability of possessing a substance dependence disorder. This measure has been shown to have a strong reliability when classifying the presence of a substance use disorder among male and female substance users ($\alpha = .93$). While Spilsbury (2012) reported that the outcome measure used in her case study (DASS) was reliable for measuring depression, anxiety, and stress in substance abusers, she did not provide any information pertaining to the scale's level of reliability.

Results. Each of the four studies reported findings that indicate the therapeutic effectiveness of SFBT with substance abusing clients. When compared with a traditional substance abuse treatment program, groups-based SFBT generated similar, and sometimes better outcomes with decreasing substance use (Smock et al., 2008). Additionally, solution-focused therapy has been found to be effective in decreasing depression and improving overall functioning in adults (Smock et al., 2008; Spilsbury, 2012), improving medication compliance (Spilsbury, 2012), and facilitating the achievement of substance-related goals (de Shazer &

Isebaert, 2003; Spilsbury, 2012). Maintaining a focus on health and wellness and allowing clients to choose their own goals for treatment were two important components of successful treatment outcomes.

Critical Analysis of Narrative Therapy Empirical Research

  Research design. A total of nine publications relevant to narrative therapy and substance abuse treatment were reviewed and critiqued including four review articles and five empirical studies. The five empirical research articles on narrative therapy included both quantitative and qualitative research designs. The quantitative research included one clinical case study (Qureshi, Apolinar Claudio, & Mendez, 2015) and one quasi-experimental study with two control groups (Szabo, Toth, & Pakai, 2014). The qualitative research included one clinical case study (Chan, Ngai, & Wong, 2012), one ethnographic study (Gardner & Poole, 2009), and one qualitative study of an application of narrative therapy to working with older adults (Morgan, Brosi, & Brosi, 2011).

  Research objective. The primary objective of Chan et al.'s (2012) clinical case study was to explore the potential of using photographs as a symbolic mediator in externalizing problems in narrative therapy. Gardner and Poole (2009) sought to fill a gap in the literature through conducting an ethnographic study wherein they explored the usefulness of narrative therapy for older adults (age 55+) with addictions and mental health issues. In addition, they discussed the complex problems faced by ageing adults, described how substance abuse can exacerbate these problems, and explained why narrative therapy may be a particularly well-suited approach for this population. With a similar research objective, Morgan et al. (2011) discussed the prevalence of substance abuse among older adults (age 65+) and provided an application of the narrative approach to working with this population.

The objective of Qureshi et al.'s (2015) case study was to examine the unique experiences faced by urban African American adolescents with substance use problems and demonstrate how clinicians may utilize social media sites (SMS) as tools to enhance progress in narrative-based therapy. In their quasi-experimental study, Szabo et al. (2014) sought to examine the effectiveness of a narrative restructuring intervention in decreasing hopelessness and improving problem-solving abilities in patients diagnosed with alcohol dependence.

Population, sample and setting. All studies took place in either an outpatient clinic or a county hospital setting and most were conduced outside of the United States (i.e., Hong Kong, Canada, Hungary). Sample sizes were relatively small and ranged from one to thirty participants. There was diversity across studies with regard to the population of interest and the characteristic of the participants. Chan et al.'s (2012) case study was conducted in Hong Kong and included one 38-year-old married Christian female in treatment for addiction to cough medication. The case was selected from a pilot service project involving substance abusers participating in narrative therapy at an outpatient clinic. Gardner and Poole's (2009) study was conducted in Toronto, Canada and included 12 older adults (age 55+), both male and female, seeking assistance for substance misuse or addiction and mental health issues. Study group participants were recruited through therapy outreach, word of mouth, and newspaper advertisements and were selected using purposeful sampling. Their sample was quite diverse and included immigrants from Africa, Germany, Spain, France, and Scotland.

Szabo et al.'s (2014) quasi-experimental study took place in Zala, Hungary and included 30 participants with a diagnosis of alcohol dependence who were admitted to treatment at a rehabilitation ward in a county hospital. The researchers did not provide any information pertaining to the age, gender, ethnicity, or country of origin of their participants. Qureshi et al.'s

(2015) case study was conducted in a clinical setting with one 16-year-old African American female who was referred to treatment by CPS (Child Protective Services) due to substance use and self-harm behaviors (i.e., cutting). Their population of interest was ethnic minority adolescents and they focused specifically on urban African American youth.

  Interventions and format. While there was some variation in the specific treatment protocols delivered across the empirical studies, each of them implemented interventions consistent with the primary principles of narrative therapy. For instance, Gardner and Poole's (2009) study included eight weekly therapy sessions that were organized around the following four key tenets: externalizing the problem, developing a therapeutic team, creating an alternative story, and thickening the description of the preferred story. Similarly, in Szabo et al.'s (2014) study, the clinicians in the narrative therapy condition implemented a therapeutically controlled autobiography restructuring intervention which concentrated on decreasing negative linguistic codes of hopelessness and impotence, increasing social words, stimulating autobiographical memory, and increasing phrases that emphasize the clients' active role in their lives. Their study included a total of twelve group therapy sessions that were conducted over the course of three weeks (4 per week). Information pertaining to the interventions administered in the two control conditions was not discussed.

  The treatment protocol implemented in Chan et al.'s (2012) study also included interventions intended to facilitate externalization and autobiographical restructuring; however, rather than using written documents, the client used photographs to record her experiences and create distance from her problems. Following an interview using a narrative therapy approach and focusing specifically on the scaffolding conversations map, the primary therapist worked with a photographer to take snapshots to represent or symbolize the core components of the

client's story. Clients were also asked to produce or submit photos and were highly involved in

the process of selecting images that would help them elaborate their stories. Contents of the

photos could include objects, figures, symbols, or scenes but the person's face and other images

that may reveal the identity of the client were avoided. Selected guests, including other

healthcare professionals, were invited to participate in the interview sessions and in the process

of retelling or re-authoring the client's story. At the end of the project, a photo album comprised

of images representing the client's story was produced and shared with the audience who

provided feedback via voice recordings. The therapeutic process consisted of six 45-minute

sessions.

Two of the studies utilized a group format to deliver treatment (Gardner & Poole, 2009;

Szabo et al., 2014), while the two single-case studies were based on an individual therapy format

(Chan et al., 2012; Qureshi et al., 2015). In Morgan et al.'s (2011) study, they provide an

application of narrative therapy that can be delivered in any format; however, they suggest that

clinicians use an individual format when working with older adults experiencing ageism and

substance abuse problems.

Data collection/measures and analysis. Consistent with qualitative research, data

collection in Gardner and Poole's (2009) study consisted of participant observations, field notes,

and semi-structured interviews. A two-stage process based on a constructivist grounded theory

approach was used to analyze the collected data. This process included identifying, categorizing,

coding, and systematically exploring concepts and themes that emerged from the collected data.

In Chan et al.'s (2012) study, the researchers recorded and transcribed six therapy sessions and

used a lag-based sequential analysis approach to identify changes in the participant's utterances

throughout the therapeutic process. The specific data collection and analysis methods were not reported in Morgan et al.'s (2011) or Qureshi et al.'s (2015) studies.

Due to the experimental design of their study, Szabo et al. (2014) gathered participant data using objective, quantitative measures. Prior to treatment, researchers administered the *Severity of Alcohol Dependence Questionnaire* (SADQ; Stockwell et al., 1983) to all participants in an effort to confirm their diagnoses of alcohol dependence. The outcome measures used included the *Hopelessness Scale* (HS; A. T. Beck, Weissman, Lesler, & Trexler, 1994) and the *Means-Ends Problem Solving Procedure*. These were administered both before and immediately following treatment. The researchers calculated the mean rates of change within both measures and performed a t-test to compare changes between and within groups.

Results. Overall, the findings from the five empirical studies provide preliminary support for the use of narrative therapy with various substance-abusing populations. Several studies reported the effectiveness of narrative approaches in facilitating the process of externalizing problems related to dominant cultural narratives and helping clients to develop alternative discourses and re-author more positive dominant stories (Chan et al., 2012; Gardner & Poole, 2009; Qureshi et al., 2015). Additionally, narrative therapy approaches were found to be effective in helping people remember and re-experience past achievements, knowledge, and positive relationships, processes which may sever to counteract frustration and feelings of failure associated with relapse among those with substance abuse problems (Chan et al., 2012; Gardner & Poole, 2009).

Szabo et al.'s (2014) quasi-experimental study also generated positive results. Among those in the test group, 80% of the participants demonstrated a decrease in hopelessness and 97% demonstrated an increase in problem solving ability. In comparison, 57% of those in the alcohol

control group demonstrated a decrease in hopelessness and 76% demonstrated increased problem solving ability. Similar results were reported for those in the anxiety control group with 53% reporting a decrease in hopelessness and 73% reporting increased problem solving ability. Overall, a significant difference was found between the study group and each of the control groups in degree of hopelessness and problem solving ability and no significant differences were found between the two control groups on either measure. Based on these results, the researchers concluded that group therapy based on narrative psychological approaches is effective and successful in reducing hopelessness and increasing problem solving abilities in alcohol addicted patients.

Critical Analysis of Positive Psychology Empirical Research

Research design. A total of seven publications relevant to positive psychology and substance abuse treatment were reviewed and critiqued including three systematic literature reviews and four empirical studies. The four empirical studies included one mixed-methods quasi-experimental design (Akhtar & Boniwell, 2010) and three correlational designs (Ciarrochi & Brelsford, 2009; Lindgren, Mullins, Neighbors, & Blayney, 2010; Logan, Kilmer, & Marlatt, 2010).

Research objective. The primary objective of Akhtar and Boniwell's (2010) quasi-experimental study was to evaluate the effectiveness of a positive psychology intervention on increasing wellbeing and decreasing substance use among substance-misusing adolescents. Two of the studies sought to identify the extent to which positive psychology constructs, including character strengths and virtues, are correlated with predictors and moderators of substance use (Lindgren et al., 2010; Logan et al., 2010). Similarly, Ciarrocchi and Brelsford (2009) sought to determine the degree to which certain aspects of spirituality and religion predict psychological

and emotional wellbeing as compared to personality factors and the use of substances as a means to cope with negative emotions.

Population, sample, and setting. Among the four studies, only one used a clinical sample. Akhitar and Boniwell (2010) used a convenience sample of adolescents ($N = 20$) ranging in age from 14 to 20 years old who were recruited from a young adult substance abuse program in Bath. All participants had problems with substance misuse (drugs, alcohol, or both) and were considered to be 'at risk.' The remaining three studies used non-clinical samples comprised of undergraduate college students and community members (Ciarrocchi & Brelsford; Lindgren et al., 2010; Logan et al., 2010). With the exception of one study (Lindgren et al., 2010), all studies included both male and female participants.

Ciarrocchi and Brelsford's (2009) study included a convenience sample of 602 adults who were selected using an online distribution of questionnaires sent out to university students, their friends, and their families. Lindgren et al.'s (2010) study was comprised of 79 female college students who were recruited from a university-based longitudinal study examining correlates of alcohol and sexual assault. Logan et al. (2010) used a sample of 425 undergraduate college students, aged between 18 and 26 years, who volunteered to participate in exchange for extra credit in their course.

Interventions and format. In the only study that implemented treatment, interventions were delivered in a group format (Akhtar & Boniwell, 2010). Those in the experimental condition of Akhtar and Boniwell's (2010) study ($n = 10$) participated in eight weekly sessions of positive psychology workshops which were structured around the following themes: positive emotions and savoring, gratitude and optimism, internal and external strengths, relaxation and meditation, goal-setting and change, interpersonal relationships, physical health, and resilience

and growth. All sessions began with a gratitude exercise, intended to foster appreciation for the good things in life, followed by activities consistent with theme of the week. Those assigned to the control group (*n* = 10) received no treatment.

Outcome measures/data collection. The data collection methods employed in Akhtar and Boniwell's (2010) mixed methods study included the use of self-report questionnaires as well as the collection of staff members' observations and reflections, which were recorded in a diary throughout the therapy process. The quantitative component of their study included the following outcome measures: the *Subjective Happiness Scale* (Lyubomirsky & Lepper, 1999), the *Life Orientation Test-Revised* (Scheier, Carver, & Bridges, 1994), the *Positive and Negative Affect Schedule* (Watson, Clark, & Tellegen, 1988), and the *Short Alcohol Dependence Data* (Raistrick, Dunbar, & Davidson, 1983). Akhatar and Boniwell (2010) also collected qualitative data. Semi-structured interviews exploring wellbeing, alcohol-related behaviors, and clients' experience of the program were conducted immediately following treatment completion and at 6-week and 12-week follow-ups.

Three of the studies used self-report questionnaires as the primary source of data collection (Ciarrocchi & Brelsford, 2009; Lindgren et al., 2010; Logan et al., 2010). Six measures were used in Ciarrocchi and Brelsford's (2009) study including the *Brief Multidimensional Measurement of Religiousness/Spirituality* (BMMRS*;* Fetzer Institute, 1999), the *International Personality Item Pool NEO 50-Item Version* (Goldberg, 1999), the *Brief COPE* (Carver, 1997), the *Positive and Negative Affect Scales* (Mroczek & Kolarz, 1998), the *Purpose in Life test* (Crumbaugh, 1968), and the *Faith Maturity Scale, Short Form* (Benson, Donahue, & Erikson, 1993). Lindgren et al. (2010) used the *Curiosity and Exploration Inventory* (Kashdan, 2004) to measure two constructs of curiosity, including exploration and absorption. Alcohol

consumption, alcohol-related problems, and sensation seeking were assessed using the following measures: the *Daily Drinking Questionnaire* (Collins, Parks, & Marlatt, 1985), *Rutgers Alcohol Problems Index* (White & Labouvie, 1989), and the *Brief Sensation Seeking Scale* (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002).

Logan et al. (2010) examined the relationship between character virtues and alcohol use. The researchers examined each of the six core virtues of positive psychology, including wisdom, courage, humanity, justice, temperance, and transcendence, to assess whether they may serve as protective factors against alcohol misuse and its corresponding consequences. Virtues were measured using the *Values In Action Classification of Character Strengths and Virtues Questionnaire* (VIA; Peterson & Seligman, 2004), a measure that has shown consistent reliability and validity across various studies. Alcohol use was measured using the a modified version of the *Daily Drinking Questionnaire* (DDQ; Collins, Parks, & Marlatt, 1985), level of risk was assessed using the *Alcohol Use Disorders Identification Test* (AUDIT; Saunders, Aasland, Babor, Delafuente, & Grant, 1993), and drinking consequences were assessed using the *Young Adult Alcohol Problem Screening Test* (YAAPST; Hurlbut & Sher, 1992).

Data analysis. In Akhtar and Boniwell's (2010) study, the interviews were transcribed verbatim and researchers used thematic analysis to identify, examine, and report repeated themes within the qualitative data from the experimental condition. Themes were identified at the semantic level by inductive analysis using a 'bottom up' approach. Quantitative data from the four outcome measures were analyzed using a 2 x 2 split-plot ANOVA with treatment condition and time as predicting factors. Survey data from Ciarrocchi and Brelsford's (2009) study was analyzed using hierarchical linear regression analyses. Outcome data in Lindgren et al.'s (2010) study were analyzed using zero-inflated negative binomial regression models.

Logan et al. (2010) used three sets of analyses. The first set of analyses compared virtue scores between drinking and non-drinking individuals. The next set of analyses excluded individuals who had never tried alcohol and compared the virtue scores of high-risk drinkers (AUDIT scores of 8 or above) with all other drinkers. The final analysis was conducted to predict drinking consequences among high-risk drinkers only.

Results. Both the qualitative and quantitative findings generated in Akhtar and Boniwell's (2010) study suggest that the positive psychology intervention delivered was related to a significant increase in wellbeing and a significant decrease in alcohol consumption. Thematic analysis was used to identify and examine repeated themes within the qualitative data from the experimental condition. A total of four main themes were identified based on prevalence within the data and relevance to the purpose of the study. The following themes emerged: present happiness (feeling better), future goals (getting better), decreased substance use, and transformation. Most of the participants (80%) reported feeling happier with an increase in positive emotions. This positive change was largely attributed to gratitude activities that enhanced appreciation for the good things in life. The process of setting self-selected, concrete and attainable goals for the future was also beneficial in that it increased motivation and facilitated a shift from pessimism to optimism about the future. Another shift that occurred during the therapeutic process was in perceptions of drug and alcohol use, which changed from being seen as a means to create happiness to an activity that blocked wellbeing. Finally, participants in the experimental condition reported an overall transformation of internal mindsets and external life circumstances (i.e., gaining employment, new housing, etc.). The quantitative results indicated significantly greater increases in happiness, optimism, and positive affect in the experimental group compared to the control group. The experimental group also showed lower

scores on negative affect; however, the interaction between condition and time was not significant. No significant differences were found between the two conditions on scores of alcohol dependence, but results indicated a decrease in alcohol dependence in the experimental group at the conclusion of treatment.

Findings from Ciarrocchi and Brelsford's (2009) study indicated that drinking to cope with problems resulted in reduced positive affect and increased negative affect. Additionally, several spirituality components (spiritual discontent, faith maturity, organizational religiousness, private religious practices, and daily spiritual experiences) were found to be significantly associated with purpose in life and positive affect indicating positive associations between spirituality and wellbeing.

Results from Lindgren et al.'s (2010) study indicated that higher scores on the exploration factor of curiosity were associated with fewer alcohol-related problems and higher scores on the absorption component were associated with greater alcohol-related problems. Results also indicated that sensation seeking was positively associated with drinking problems but was not related to either of the two curiosity components. Overall, findings from this study suggest that the construct of curiosity may play an influential role in alcohol-related behaviors and problems. Specifically, the exploration component of curiosity may serve as a protective factor against alcohol problems while absorption may be an added risk factor. Findings from Logan et al.'s (2010) study suggest a possible relationship between several character strengths and substance use behaviors, which provides a foundation upon which to build future research pertaining to positive psychology and substance abuse.

Critical Analysis of Strengths Perspective Empirical Research

      Research design. A total of nine publications were located wherein the term strengths-based was used to characterize the framework of the therapeutic approach taken or to describe the guiding principles of a treatment program for people with substance use disorders. This body of literature contained six review articles (Gallardo & Curry, 2009; Karroll, 2010; Pattoni, 2012; Thompson, McManus, & Voss, 2006), and three empirical studies (Harris, Brazeau, Clarkson, Brownlee, & Rawana, 2012a; Harris, Brazeau, Clarkson, Brownlee, & Rawana, 2012b; Lietz, 2011). The three empirical studies used qualitative designs (Harris et al., 2012a, 2012b; Lietz, 2011).

      Research objective. Harris et al.'s (2012a) study aimed to examine participants' perspectives of the effects of a strengths-based orientation on the development of group cohesion. The other study conducted by Harris et al. (2012b) sought to understand the participants' experiences of treatment and identify what factors contributed to successful outcomes. The objective of Lietz's (2011) study was to understand how resilient families describe and assess their pro-social behaviors.

      Population, sample, and setting. Both studies conducted by Harris et al. (2012a, 2012b) were conducted in Canada and included adolescents who had recently completed a 5-week strengths-based residential treatment program for substance abuse. One of their studies included 36 adolescents and the other included 52 adolescents ranging in age from 15 to 18 years old. Both studies included male and female participants. Lietz's (2011) study included a sample of 20 families that had been recruited from local social service and volunteer organizations in Arizona. Snowball sampling was used to identify families who met inclusion criteria and one adult from each family served as the family's representative.

Outcome measures/data collection and analysis. Researchers in all three studies utilized narrative inquiry methods in the form of face-to-face interviews to collect data from participants. In both studies by Harris et al. (2012a, 2012b) the researchers conducted exit interviews consisting of eight open-ended questions related to the participants' experience of the treatment program. Data collected during the interviews were analyzed using thematic analysis. Lietz (2011) also utilized narrative inquiry methods in the form of in-depth interviews to collect data from participants. Interviews consisted of eight open-ended questions intended to generate participants' recollection and discussion of family experiences. Data were recorded and transcribed, then deconstructed to identify narrative themes and structural codes.

Results. Several themes and subthemes emerged from Harris et al.'s (2012a) thematic analysis indicating positive effects of discussing strengths with other group members. Specifically, the strengths-based approach implemented in the program helped facilitate group cohesion and strengthened the therapeutic alliance. In their other study, Harris et al.'s (2012b) indicated that the strengths-based approach helped facilitate engagement and was perceived by the participants as the most useful component of the program. Findings from Lietz's (2011) study demonstrate that resilient families engage in altruistic behaviors for a number of reasons including helping others, honoring lost loved ones, and finding meaning in the struggles they face.

Review and Evaluation of Key Findings

As a whole, the empirical literature on strengths-based treatment for substance use disorders is sparse, but preliminary studies suggest the potential usefulness of these approaches with those who have not responded favorably to more conventional Western-based treatment modalities such as those based on the medical model. Within the existing body of literature on

strengths-based treatment for substance use disorders, the majority of the empirical support is located within the MI/MET literature; however, MI/MET outcome research has yielded mixed results. For example, MI/MET has not been found to be effective in reducing substance use among African Americans, but may be effective in increasing treatment retention among African American females (Montgomery, Burlew, Kosinski, and Forcehimes 2011).

Pilot studies, case studies, and anecdotal findings suggest that strengths-based practice may be useful in facilitating clients' ability to externalize their problems (Chan et al., 2012; Gardner & Poole, 2009; Quereshi et al., 2015), develop more positive perspectives on their lives (Linton, 2005), and make self-directed positive changes (de Shazer & Isebaert, 2003; Nelle, 2005; Spilsbury, 2012). In doing so, clients may become more empowered and motivated. Strengths-based approaches have also been found to be effective in increasing wellbeing and decreasing depression and hopelessness (Akhtar & Boniwell, 2010; Smock et al., 2008; Szabo et al., 2014) among those with substance use problems. Several strengths-based approaches have been found to be effective in increasing clients' use of change talk, or solution talk, which is associated with increased desire and intent to change, along with actual positive behavioral changes (Willernick, 2012).

Strengths-based treatment has been shown to be effective in increasing engagement in substance abuse treatment (Spilsbury, 2012) and enhancing group cohesion among substance users in group therapy settings (Harris et al., 2012a). Additionally, the empathic and non-confrontational approach employed in strengths-based approaches has been associated with decreased defensiveness in unmotivated clients (Linton, 2005; McCollum et al., 2003) and decreased substance use in difficult-to-treat and at-risk clients, including homeless runaway adolescents and those with hepatitis C virus (Slesnick et al., 2013; Dieperink et al., 2014).

While the empirical support for strengths based treatment of substance use disorders is minimal, this does not imply that it is an ineffective approach. The dearth of empirical evidence may be associated with system barriers such as lack of funding to conduct large clinical trials, or difficulties in generating a mutually agreed upon and operationalized definition of strengths-based practice. Also, there are several ways in which strengths-based treatment and its guiding philosophies may be incongruent with the methods employed in empirical research. For example, many advocates of the strengths-based approach question the utility of efficacy studies due to the lack of cultural diversity among samples and the use of interventions and outcome measures that are based on Western values and belief systems. Additionally, the presumption that there exists generalizable and objective truths runs counter to the position of social constructionists who believe that realities are socially constructed and dependent upon social, political, and cultural contexts.

Methodological and Conceptual Critique

There was considerable diversity across the studies with regard to research objectives and design, sample size and characteristics, and treatment settings. With the exception of MI/MET, the existing studies on strengths-based approaches to substance abuse treatment contain a number of methodological flaws that limit the ability to draw firm conclusions about their effectiveness. The MET literature contained efficacy and effectiveness studies, most of which were conducted in tightly controlled environments using psychometrically sound measures and highly trained therapists. These characteristics indicate good internal validity and reliability. Additionally, most of the studies included large sample sizes and several studies sought specifically to examine treatment effectiveness among ethnically diverse populations (i.e., Hispanic, Native American, and African American). Studies that did not explicitly examine

ethnic or cultural differences contained disproportionately high numbers of Caucasian male participants, thereby limiting the generalizability of their findings.

The existing empirical research on SFBT for substance abuse treatment is relatively sparse and contains a number of methodological limitations that restrict the ability to draw firm conclusions about its effectiveness with substance abusing populations. For instance, within the SFBT research, only one study included a treatment comparison group and implemented random assignment of participants to treatment conditions (Smock et al., 2008). This study was also the only one that used valid and reliable screening (SASSI-3) and outcome measures (OQ 45.2; BDI-II) and the only one that used appropriate data analyses to evaluate between-group and with-in group differences. The remaining studies contained small sample sizes, including two that used only one participant. These small sample sizes limit the internal and external validity of these studies. A recognized strength within the SFBT research was high treatment fidelity and application of concepts congruent with the fundamental tenets of the SFBT model, including the use of future-oriented and solution-focused language.

Within the narrative therapy literature, most of the studies implemented qualitative methods to collect and analyze data. This approach to research is consistent with narrative therapy's philosophical stance on rejecting the notion of objective and generalizable truths. Narrative therapy researchers do not claim to know the cause and effect relationship because they operate from the assumption that events, occurrences, and phenomena have multiple causes. The purpose of their research was not to predict and discover causes or predict behavioral outcomes but it was to get a full description of the experiences of the participants and of those with substance use disorders and other confounding factors.

As such, researchers aimed to gain rich and detailed understandings of clients' unique experiences, rather than seeking to obtain generalizability findings. Most studies did not implement randomization of participants to treatment group, nor did they utilize objective or reliable outcome measures. The subjective nature of the narrative approach to research makes it difficult to measure its success with treating substance use disorders, or any disorder for that matter. However, although conclusions cannot be drawn pertaining to the efficacy of narrative therapy in treating substance use disorders, or to the generalizability of the approach across various populations, the research provides a rich and contextualized understanding of the experiences and struggles clients face. Another strength that was found in both the SFBT and narrative therapy research was that most of the studies were conducted in field settings (clinic, school, home, agency) rather than in a laboratory or structured and unnatural setting. This speaks to the ecological validity of the findings.

The empirical research on positive psychology as an effective treatment modality for substance abuse disorders was minimal and included several methodological limitations. For example, several studies used non-clinical samples of college students who had been recruited using convenience sampling. The findings from these studies cannot be generalized to clinical populations. Additionally, several studies were correlational or associational in nature, thereby precluding the ability to draw causal information from their findings. Despite these limitations, the positive psychology research provided useful information pertaining to the correlations between various strengths and substance use behaviors, which may provide a foundation upon which to build future research.

Congruence with Culturally Competent Practice

There are a number of ways in which strengths-based practice provides an ideal framework for treatment with culturally diverse clientele. Strength-based practice emphasizes the importance of considering the whole individual and his or her various layers and complexities, rather than seeing only his or her disorder or deficits. This is evidenced by its focus on identifying and bolstering strengths within the individual and within his or her culture and environment. The practice of eliciting clients' stories and seeking a more complete understanding of their lives, experiences, and perceptions is another example of its emphasis on seeing the client as a whole. Those who implement the strengths-based approach take the position of collaborator, co-facilitator of solutions, and equal participant in the therapeutic process rather than taking the stance as an all-knowing authority figure. This positioning demonstrates respect for the client and may be instrumental in building trust among those who have been harmed by the system and/or are reluctant to seek treatment due to trust issues and other salient issues.

Another component of strengths-based practice that is congruent with culturally competent practice is its efforts to connect individuals with resources in their communities and to promote self-reliance as opposed to enhancing dependence upon the health care system. Connecting individuals with naturally occurring resources and alternative sources of help is likely to facilitate in the amelioration of health care disparities among culturally diverse and ethnic minority populations by addressing various treatment barriers and delivering more equitable and culturally relevant treatment interventions. Efforts to be more responsive to the specific needs and challenges of various cultural and ethnic minorities are salient within the strengths-based literature, especially that which is focused on strengths-based programs.

Numerous strengths-based programs have been designed to deliver culturally specific interventions that include the implementation of traditional healing practices and culturally congruent values (e.g., use of spiritual healers, incorporation of the family). For instance, the *Family Empowerment Program* and the *Support Network Intervention Team* (SNIT) are two multi-systemic mental health programs that have been developed which incorporate both family-based and community-based services for those in need (Cleek et al., 2012; Winek et al., 2010). Additionally, researchers have developed an MI/MET manual adapted for use with Native American populations based on the input and contributions from members of Native American communities. While much more research is needed to be able to determine its effectiveness with culturally diverse populations, strengths-based practice appears to be a useful avenue through which to deliver culturally competent treatment.

Chapter Five: Discussion

The following section provides a discussion of the common clinical factors that emerged from the critical review of the literature pertaining to strengths-based treatment for substance use disorders. Key similarities and differences among the various strengths-based approaches are presented, followed by clinical implications and recommendations for future research.

Common Clinical Factors

Focus on internal strengths. Eliciting clients' strengths was a common treatment objective identified in each of the approaches contained within this critical review of the literature. This perspective differs greatly from the assumptions of traditional models of substance abuse wherein people are viewed as powerless over the disease of addiction and from those of CBT-based models which propose that substance use results from deeply entrenched negative, dysfunctional, or maladaptive beliefs and cognitions. Both solution-focused and narrative therapists use language and specific forms of questioning that help clients to think about their strengths and draw attention to the ways they have been functioning well in life. In solution-focused therapy, therapists ask *exception questions* to orient clients toward times in their lives when the problem they were facing did not exist or was more manageable (Berg & Miller, 1992). Similar forms of inquiry are used in narrative therapy, but are described as efforts to identify *unique outcomes* within the clients' self-narrative (White & Epston, 1990).

There were several consistencies found within the literature pertaining to the specific types of strengths utilized and emphasized in each approach. Among these were clients' decision-making capabilities, client's experiential knowledge, social relationships, and contextual factors (i.e., family, cultural, and environmental strengths). When clients are regarded as experts, as they are in the strengths-based approach, the therapist is relying on the client's

decision-making abilities (internal strength). Strengths-based therapists also draw on client's experiential knowledge to discover what has worked for them in the past in order to generate possible solutions for the future (Berg & Miller, 1992). Additionally, positive psychology therapists utilize gratitude exercises in treatment as a means to draw on clients' past experiences and experiential knowledge and focus attention on the positive aspects in their lives (Akhtar & Boniwell, 2010).

The interventions described in the MET literature also involved bolstering clients' strengths; however, the objective of treatment was directed more toward enhancing general competencies such as self-efficacy and motivation rather than seeking to identify strengths unique to individual clients. Consistent throughout the literature on successful treatment for substance use disorders is a focus on the concept of self-efficacy (Gray & Gray, 2001). Having a sense of who one is and what his/her place is in the world and that there is a unique purpose for which he/she is uniquely suited helps build a sense of efficacy and self-esteem (Gray & Gray, 2001). This sense of meaning and purpose is highlighted in each of the strengths-based modalities.

The positive psychology literature contained much more detailed descriptions of various internal strengths and virtues, along with a theoretical framework to explain the functions they serve in promoting health and wellness. Furthermore, positive psychology interventions have been designed explicitly to build positive emotions, cultivate character strengths, and enhance one's sense of meaning. Positive psychology focuses heavily on strengths assessment and the use of the *Classification of Character Strengths and Virtues* (VIA-IS; Peterson & Seligman, 2004) as means to identify and measure clients' individual strengths and gather a more thorough understanding of clients' strengths and virtues. Clients participate in the *signature strengths*

exercise where they write down their top five signature strengths and identify ways they can utilize these in their every day lives.

A noticeable distinction between the modality-specific literature (i.e., SFBT, narrative therapy, MET, and positive psychology) and the a-theoretical literature pertaining to the strengths-based perspective was the degree to which contextual and environmental strengths were emphasized. Literature on the strengths-based perspective focused predominantly on contextual factors, including competencies and resources within one's culture, family, and natural environment (Cleek et al., 2012; Winek et al., 2010). Considerable attention is directed toward fostering resiliency and empowering clients to overcome sociocultural barriers and economic hardships (Lietz, 2011).

Culturally responsive treatment. Conventional Western models of treatment conceptualize substance abuse as a chronic and potentially progressive biological disease residing within individuals. Proponents of the strengths-based perspective highlight a number of problems associated with this conceptualization and its application to clients of various cultural and ethnic backgrounds. For example, Gallardo and Curry (2009) speak to the clash between Western values and the cultural values and worldviews commonly held by members of the Latino population. Failure to acknowledge these differences and to consider the social and cultural contexts influencing clients' lives has led to underutilization of professional mental health services (Anthony & Echeagaray, 2000), inaccurate and inappropriate assessment and diagnoses (Gallardo & Curry, 2009), inability to establish trusting and collaborative therapeutic relationships, and the delivery of ineffective treatment (Anthony & Echeagaray, 2000).

Effectively treating culturally and ethnically diverse clients necessitates a more holistic and less pathological perspective of human functioning and a closer look at the various

contextual, societal, and cultural factors influencing the initiation and maintenance of substance use problems (Coatsworth, Pantin, & Szapocznik, 2002). Developing a trusting relationship with clients requires psychologists to be culturally sensitive and aware of differences in cultural worldviews and schemas that affect the ways people interact with and perceive the world. Clients who are part of oppressed and subjugated groups are especially susceptible to the compounding negative effects of substance abuse and clinicians need to remain vigilant in their efforts to understand the cultural and contextual factors that effect the initiation and maintenance of clients' problematic behaviors (Carvajal & Young, 2009). Two important considerations pertaining to the challenges faced by ethnic minorities include acculturative stress and minority stress resulting from difficulties adapting to new culture. Gallardo and Curry (2009) report that acculturative stress is a prominent factor in substance abuse among Latino immigrants and is likely to serve as a coping response for stressful situations associated with acculturative stress. Similarly, Young (1992) sites the rapid loss of culture and cross-cultural conflict between Euro-American norms and American Native traditions as central contributors to the high rates of alcoholism and alcohol-related problems among Native populations.

Because of its flexible, collaborative, and empowering approach, the strengths-based perspective provides a valuable framework for delivering culturally congruent interventions. An essential and valuable component of narrative therapy involves deconstructing the dominant stories about problems and reconstructing more positive and empowering self-narratives (White & Epston, 1990). This component is critical in working with ethnic minority clients with substance abuse problems, as their dominant stories are frequently structured around experiences with racism, oppression, and subjugation (Qureshi et al., 2015). Negative implicit and explicit

messages within the dominant cultural narrative can negatively impact self-esteem and contribute to a self-narrative entrenched in self-hatred and blame (Carvajal & Young, 2009).

The importance of developing and implementing culturally congruent interventions in substance abuse treatment is frequently addressed within the strengths-based literature. Several theoretical concepts have been proposed that serve as guidelines for therapists to follow in order to deliver culturally sensitive treatment. Substance abuse programs designed to deliver culturally congruent practices among diverse groups are beginning to emerge and have been developed for Hispanic, Maori, Native Alaskan, Asian/Pacific Islander, and African American populations (Carvajal & Young, 2009; Jones, Hardiman, & Carpenter, 2007; Lee, Ayers, & Kronenfeld, 2009; Morelli, Fong, & Oliveira, 2001). Results from these programs and other culturally- based intervention modalities for substance abuse problems among minority populations have been promising thus far, but few have been empirically supported. Continued efforts are needed to further enhance treatment quality and improve outcomes.

Non-confrontational positioning of the therapist. A common belief held by proponents of the disease model is that those who are addicted to drugs or alcohol are powerless over their substance use and must acknowledge and admit their powerlessness before progress can be made. Within this framework, clients who are unable or unwilling to take this step are labeled 'resistant' or 'in denial' of their disease. Intervention strategies, therefore, often include forceful efforts to confront clients' denial and persuade them of the need for abstinence. According to Miller, Yahne, and Tonigan (2003), confrontation is intended to elicit feelings of shame and humiliation, which in turn is supposed to lead to motivation for change; however, studies evaluating motivation for change indicate that a more empathic and supportive approach is more effective in eliciting clients' innate motivation to alter their substance use (Akhtar &

Boniwell, 2010; Miller & Rollnick, 2002; Richardson et al., 2012). Similarly, Berg (1996) reports that confronting perceived resistance and denial at the onset of treatment leads clients to become defensive and places them in a position to argue against change. Rather than using a forceful approach and imposing a belief system onto clients, strengths-based therapists accept and honor clients' decisions and help them develop effective solutions, regardless of whether or not abstinence is chosen as a desired outcome (McCollum et al., 2003). Doing so may diffuse resistance and circumvent argumentativeness that often arises when clients are confronted with pre-determined tasks that the therapist has deemed important (Spilsbury, 2012). Additionally, demonstrating a respectful attitude towards clients helps to build a strong working alliance early in treatment, which is a consistent predictor of engagement and retention in substance abuse treatment (Meier, Barrowclough, & Donmall, 2005).

Collaboration and goal-setting. A central theme in the strengths-based literature as it pertains to substance abuse treatment is the importance and potential benefits of implementing a collaborative and client-centered approach wherein client choice is respected and encouraged. When clients are able to choose what they want to change and determine their own goals for treatment they are empowered to take charge of their treatment (Karroll, 2010) and are able to take ownership of the change process (Smock et al., 2008). Additionally, clients are more likely to put effort into attaining self-determined goals than if they were imposed upon them by a therapist (McCollum et al., 2003). Furthermore, placing clients in charge of their treatment increases cooperation and ultimately leads to more successful treatment outcomes (Smock et al., 2008).

Remaining flexible in the co-construction of treatment goals and solutions is a key to establishing and maintaining a successful helping relationship (Karroll, 2010). The therapeutic

relationship is intended to foster a sense of hope, help reframe problems, and provide

opportunities for the development of language and attitudes of opportunity and possibility

(Karroll, 2010). Building a strong therapeutic alliance is fundamental to successful therapy

outcomes and is the key element by which psychologists foster clients' strengths (Gallardo &

Curry, 2009).

Clinical Implications

The strengths-based literature points to several implications for psychologists and other

helping professionals who treat clients with substance abuse problems. Discussing clients'

strengths during the therapeutic process appears to help foster self-awareness, instill hope, and

allow for clients to hear their own internal voices, which may be useful in facilitating the self-

transformation process (Joseph & Linley, 2005). In general, strengths-based practice appears to

be most useful for clients with moderate versus severe substance use problems, such as those

requiring outpatient services and those needing only brief treatment. This is especially true for

SFBT wherein treatment is delivered across only 3 to 4 sessions. Substance abusing adolescents

seem to respond particularly well to the strengths-based model, as indicated by its effectiveness

in increasing treatment engagement and facilitating group cohesion among this population

(Harris et al., 2012a). While it is important to focus on clients' strengths throughout the entire

therapeutic process, it is likely to be most influential in the early stages of treatment because it

helps build a strong therapeutic alliance and enhances motivation for change (Haris et al.,

2012a).

The literature on MET indicates that implementing an empathic rather than

confrontational approach predicts decreases in frequency of alcohol use and increased treatment

retention (Karno, 2007). Treatment retention is an especially important factor in substance abuse

treatment because attrition rates are particularly high among this population. Treatment

effectiveness in MET is also predicated on using an organized and strategic approach that

focuses specifically on drinking behaviors rather than simply providing an empathic therapeutic

environment (Sellman et al., 2001). MET appears to be equally effective as CBT and TSF in

reducing frequency and quantity of alcohol use in Hispanic clients (Arroyo et al., 2003), but may

not be effective for reducing substance abuse in African American adults (Montgomery et al.,

2011). Future research exploring how specific culture-specific attitudes and beliefs affect

treatment outcomes within MET should be conducted in order to better understand how

treatment may be tailored to meet the specific needs of various cultural and ethnic groups.

MET appears to be more effective for individuals who demonstrate lower degrees of

motivation and readiness to change than those who are in more advanced stages of change.

Those who are more motivated to change their drinking behaviors tend to benefit more from

CBT than MET (Witkiewitz et al., 2010). Because of its emphasis on building motivation,

researchers suggest that MET may be more useful as a prelude to treatment rather than a stand-

alone approach for those who necessitate long-term or more intensive care. Additionally, certain

personality traits and genetic factors among clients may impact the effectiveness of MET in

reducing substance use. Specifically, MET appears to be ineffective for those who demonstrate

high levels of impulsivity and sensation seeking, as well as those with specific genotypes

(Feldstein Ewing et al., 2009). These combined findings suggest the potential usefulness of

matching clients to treatment based on their level of motivation, current position within the

stages of change, and presence of certain personality and genetic factors. Additional research is

needed to determine what other client factors may moderate the effectiveness of MET and to

determine under what conditions MET may be most effective.

Findings from the narrative therapy literature suggest that narrative therapy may be particularly useful for working with culturally diverse clients whose identities have been impacted by negative messages within the dominant cultural narrative. Those whose problem-stories contain themes of racism, ageism, oppression, and subjugation may respond particularly well to the explicit focus on problem deconstruction and exploration of the ways in which their lives and problems have been impacted by societal and cultural forces (Gardner & Poole, 2009; Morgan et al., 2011; Qureshi et al., 2015). Having a safe and supportive environment where they are able to share their experiences, receive help externalizing their problems, and remember positive parts of their life stories seems to be effective in re-shaping clients' sense of selves and empowering them to make positive changes. Additionally, narrative therapy offers an alternative approach to treatment with those who hold cultural values and worldviews that are incongruent with Western ideas and values.

Findings from the positive psychology literature point to the potential usefulness of evaluating the associations among character strengths and substance use behaviors. Researchers have found correlations between curiosity-exploration, spirituality, wisdom, courage, justice, and forgiveness and drinking behaviors (Lindgren et al., 2010; Logan et al., 2010). Further exploration of these associations may provide treatment providers with avenues to enhance substance abuse prevention efforts. Building strengths and fostering positive emotions may help to buffer against negative emotions and help prevent or decrease suffering, which may ultimately help prevent and decrease problematic substance use (Duckworth, Steen, & Seligman, 2005; Seligman, Rashid, and Parks, 2006). Additionally, positive psychology interventions seem to be more appropriate for members of individualistic cultures, whose values are consistent with the

pursuit of individual happiness than those who value more collectivist perspectives

(Lyumomirsky, 2008).

Recommendations for Future Research

The evidence base for strengths based treatment of substance use disorders is expanding

and numerous researchers have confirmed cases of positive treatment outcomes among youth

and adults with mild to moderate substance use disorders. The strengths based perspective offers

a number of potential advantages to those interested in utilizing alternative forms of treatment

when working with substance abusing populations. Further research is necessary to evaluate

their efficacy and to measure their effectiveness with diverse clinical samples in order to

establish their position as evidence-based practices in the field of clinical psychology, and

addiction research in general. While MET has been established as an efficacious approach to

treating substance use disorders, other strengths-based approaches are in need of more rigorous

research designs, including the use of random assignment to treatment conditions, appropriate

sample sizes, and objective outcome measures with established psychometric properties.

Another noticeable gap in the strengths based literature as it pertains to treatment of

substance use disorders is a limited understanding of how various ethnic minority populations

experience substance use problems and what sources or avenues of help may be most useful for

them. Examination of existing research on substance abuse treatment reveals significant

underrepresentation of ethnic and racial minorities. Asian Americans, Pacific Islanders, Native

Americans, and Alaska Natives are among some of the least represented minority groups in this

body of literature and efforts are needed to improve our knowledge base on the unique treatment

needs of these and other ethnic minority groups. Research studies that focus on effective

prevention strategies for ethnically diverse populations are also needed to help redress the

existing imbalance in the representation of various groups within the literature. It may also be beneficial to research the specific functions of various strengths, determine whether some strengths are more or less valuable for targeting different treatment objectives, and explore which strengths may be more or less appropriate for different populations.

An exploration into the effects of the clinician's personal recovery status on treatment outcome may be another potentially fruitful focus of research. Helping professionals who have experienced and overcome substance problems themselves may serve as positive role models for clients and may facilitate a more collaborative therapeutic relationship. Alternatively, a clinician's recovery experience may be irrelevant or even detrimental to treatment outcome with some clients. Examining these, and other cultural and contextual factors that influence substance abuse treatment may help to further our understanding of how to effectively prevent and treat substance use disorders within and across diverse populations.

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APPENDIX A

Summary Tables of Selected Literature

Table A1.

Motivational Enhancement Therapy

	Cite & main purpose/aim	Study design & sample	Interventions	Key findings	Strengths & limitations	Additional notes/Cultural & contextual considerations
1	Adamson & Sellman (2008) Aim: Determine whether the superior treatment effect of MET previously demonstrated at 6 months was sustained at a 5-year post-treatment follow-up	Study Design: Outcome study; long-term -Retrospective view 5- year follow-up interview of Sellman (2001) study -Baseline assessment was completed in 2 parts -Past 6-motnh alcohol and drug use was recorded using the Timeline Follow-back procedure (TLFB) Participants: *N*= 77 participants were followed-up; -41.6% women -M age=37.3 The 5-year outcome sample represents 64% of the non-deceased treatment sample (*n*=122 at 6 months) or 72% of the non-deceased patients consenting to further follow-up. Those subjects followed up were older; were more educated; had lower rates of co-existing mood, anxiety, and substance-use disorders; and were more likely to have attended all 4 therapy sessions (for MET and NDRL patients) -Both the 6-month and 5-year follow-up interviews were conducted by research assistants blind to treatment allocation and were primarily focused on identifying drinking level	Interventions: N/A (See original study by Sellman, 2001) -Primary Outcome Measure: -Unequivocal Heavy Drinking (UHD), defined as drinking 10 or more standard drinks at least 6 times in the past 6 months-used Time Line Follow Back Interview (TLFB) -Drinking was categorized based on the degree to which the participant drank above national sessional drinking guidelines (6 standard drinks for men; 4 for women) Data Analysis: -Chi square and analysis of variance were used to compare characteristics of those successfully re-interviewed at 5 years and those lost to follow-up -Also, the a priori primary drinking outcome measure, a "cascade" of lower threshold drinking also is presented and analyzed. -LOCF analyses were employed as an additional measure of outcome	Key Findings: -Outcome- For the group as a whole, there was a significant reduction in drinking from baseline to 6-month follow-up, with the rate of UHD reduced by more than a third. This measure of drinking continued to decrease, to half the 6-month level, from 51% to 25% for the 5-year follow-up sample -At 5 years, there was an abstinence rate of 23%, with 14% continuing to drink but never exceeding national guidelines, while a further 14% exceeded these national guidelines between one and five times but no time drank 10 or more standard drinks during the 6 months before follow-up -There are no significant Treatment X Outcome interactions at 5 years in a 2 X 3 chi square for linear associations analysis, nor is treatment a significant predictor of outcome when the MET is compared with a combined NDRL and NFC group -MET did not maintain a superior outcome at 5 years after treatment; no apparent difference in outcome among the three groups with UHD or a range of lower drinking thresholds, with all 3 groups continuing to improve with time -Absence of a sustained differential treatment effect for this sample is consistent with the findings of Hettema et al. (2005) of substantially diminished effect sizes beyond a 12-month follow-up of a magnitude of	Strengths: -Used appropriate statistical analyses -Mitigated the effects of low follow-up rate by including a secondary analysis employing LOCF for the primary outcome variable Limitations: -Relatively low follow-up rate -Lack of biomarkers or other corroboration of self-report -Absence of data on subsequent treatment use; may have eroded treatment differences	Notes: -Given their duration and chronic relapsing nature of substance dependence, it is not surprising that the "therapeutic half-life" is no long enough to still be detectable after 5 years. Culture/Context: -No mention of cultural groups; no race or ethnicity identification or comparison

(0.11) that would be detected only with a very large sample size
-Individuals allocated to receive MET achieved a greater reduction sooner than either of the comparison treatment conditions-this is a meaningful difference in itself, even when viewed from the distance of 5 years
-MET has the potential to carry with it sustained benefits of reduced exposure to heavy alcohol use during the immediate post-treatment period and its associated physical and social harms

| 2 | Arroyo, Miller, & Tonigan (2003)

Aim:
Examine the influence of Hispanic ethnicity on long-term outcomes across three alcohol-treatment modalities | Study Design:
Post-hoc analysis of an RCT (Project MATCH)

Sample analyzed:
-N=205; 105 non-Hispanic Whites; 100 Hispanics

Data collected at the Albuquerque, New Mexico site within Project MATCH | Interventions:
N/A
Outcome Measures (from parent study):
1. Alcohol use- Form-90 Interview
2. Alcohol Problems- Drinker Inventory of Consequences (DrInC)
3. Quantification of AA attendance and involvement | Key Findings:
-Hispanic clients responded similarly to the three treatments (this finding paralleled a previous report of similarly positive treatment outcomes for Hispanics across a variety of treatment modalities)
-Non-Hispanic Whites assigned to TSF reported significantly better outcomes than Hispanics
-Non-Hispanic Whites evidenced significantly less frequent drinking when assigned to TSF than when assigned to the other two treatments; Hispanics showed no such differential benefit from TSF
-The pre-treatment differences in frequency of drinking was no longer apparent at follow-up
-Mixed findings on the importance of considering acculturation in the Hispanic sample
-Acculturation was significantly related to drinking intensity but not to frequency in the 90 days prior to intake | Strengths:
-Closely adhered to original study conducted in English
-Translated manual into Spanish

Limitations:
-Acculturation findings should be interpreted with caution in that data were missing for 20% of the cases | Culture/Context:
-Relative to non-Hispanic white clients, Hispanic clients were younger and, on average, reported significantly less education. Hispanics drank less frequently but with equal intensity, and reported less prior attendance and involvement in AA in the 90-day period before study recruitment |
| 3 | Ball et al. (2007) | Study Design: | Interventions: | Key Findings: | Strengths: | Notes: |

Aim:
Examine the effectiveness of MET compared to CAU for increasing retention and reducing substance use in adult outpatients

Multisite RCT

Sample:
-N=461 participants
All participants were current substance users and most met current criteria for either substance abuse or dependence based on a structured interview
-Alcohol and cocaine were the most common SUDs
-N=31 therapists
-5 outpatient substance abuse programs within 3 research-practice partnerships in the NIDA CTN

Characteristics of participants across treatment sites:
-41.9% Caucasian; 42.1% African American; 10.6% Hispanic American; 5.4% Other
-Mean age=34.79
-Mean years of education=12.58
-39.5% employed
-39.3% had previous alcohol treatment
-57.6% had previous drug abuse treatment
-28.2% court mandated to treatment
Procedure:
Participants were randomly assigned to one of the 2 therapy conditions (MET) or CAU during their first month of treatment at each outpatient program site

-MET: 3 individual sessions (45-55 min ea.) over the course of 4 weeks (n=216)
Followed treatment manual

-CAU: individual sessions (45-55 min ea.) over the course of 4 weeks (n=245)
Included regular counseling practiced within the outpatient program (early case management, substance abuse counseling, encouragement of attending 12-step meetings, promoted abstinence, etc.)

Primary Outcome Measures:
Taken at baseline, 8-week follow-up and 16-week follow-up
1. Treatment Retention (# of days in treatment program; % still enrolled 16 weeks after randomization)
2. Substance use- Substance Use Calendar (SUC) – interview assessment of self-reported substance use adapted from the Time Line Follow-Back (TLFB) Interview (Reliable and valid instrument for monitoring substance use)
3. Substance Use- urine and breath drug analysis- OnTrack test cups

Data Analysis:
-The two retention measures and the urine drug outcome measure were analyzed using a two-factor (two therapy conditions and five program sites) fixed-effect analysis of variance (ANOVA) or analysis of covariance with intent-to-treat
-The SUC measure was analyzed using a longitudinal analysis of days per week use of each participant's primary

-Hypothesis that MET would ne more effective than CAU was not supported by either retention measure or the urine drug outcome
-The Therapy Condition X Weeks X Phase interaction indicated that both interventions resulted in significant and comparable reductions in self-reported primary substance use during the 4-week active therapy phase, but only the MET group sustained these improvements over 12-weeks

-CAU was associated with significant increases in substance use over follow-up
-No retention differences between the 2 interventions

-Used an independent evaluation of therapy process based on audiotapes of MET and CAU sessions; suggested that a decentralized training model resulted in comparably discriminable therapies across sites
-Sample of therapists appeared representative of the substance abuse treatment workforce that surveys have categorized as predominantly White, middle-aged, somewhat more female, college educated, and with over 5 years working in the field or for their agency
-Therapists were intensely trained
-Study gave attention to site difference and effects
-Recruited a diverse sample of outpatients
-Therapists were randomized to training condition
-Significant attention to treatment fidelity

Limitations:
-Almost 1/3 of the participants interested in the study were found ineligible because of lack of recent self-reported substance use or pronounced psychosocial instability
-The results should not be generalized to other substance abuse patient groups, practice settings, or practitioners
-Although MET was adapted from the Project MATCH manual, they delivered 3 sessions in the 1st month of treatment rather than 4 sessions delivered on a monthly basis over several months
-The time spent in training was not balanced across conditions and therapists

-Cost-effectiveness of intensive training and supervision needs to be taken into consideration
-Variability in how standard outpatient treatment was provided in the 5 programs chosen for participation appeared to be a more robust predictor across outcome than the therapy conditions compared or the therapists providing these interventions

Culture/Context:
-Used a diverse patient population
-Did not evaluate differences in treatment effectiveness across different groups
-28.2% of participants were court-mandated to treatment; 32.2% were referred from the legal system; 33.9% were on current probation or parole

substance from baseline through 16 continuous weekly data points; used a piecewise hierarchal linear regression model to accommodate missing data and test for differences in linear estimates between the 2 time phases

assigned to MET received regular, observationally based supervision throughout the trial
-Some contamination of therapy conditions likely occurred
-The effect of program site and the group session covariate were robust predictors of outcome. The group session covariate was measured after randomization so caution is warranted in interpreting results of the statistical model including this covariate

| 4 | Carroll, Martino, Ball, Suarez-Morales, Szapocznik, Miller, Rosa, Mathews, & Farentinos (2009)

Aim: Compare the effectiveness of MET for Spanish-speaking substance users | Study Design: Multisite Randomized Controlled Trial implemented in five outpatient substance abuse treatment programs

Sample: 405 Spanish-speaking adult substance users; randomly assigned to one of two individual treatment conditions involving three sessions of either MET or CAU

H1: MET would be more effective than CAU when delivered in community practice settings with diverse groups of Spanish-speaking substance abuse outpatients in terms of reducing the frequency of substance use and enhancing retention
H2: MET would be more effective in reducing days of alcohol use among participants whose primary substance use problem was alcohol. | Interventions:
Three individual sessions of either MET (followed treatment manual) or CAU

Primary Outcome Measures:
1. Retention in Treatment (# days enrolled in TX program)
2. Frequency of substance use (SUC; self-report)
3. Urine samples (to corroborate self-report) | Key Findings:
-No main effects for therapy condition or Therapy Condition X Program Site interactions for treatment retention.
-Overall participants in both conditions were retained in their outpatient program for an average of about 3 months.
-Almost all participants (MET=93%, CAU=91%) were still enrolled at their program site at the 28-day therapy termination assessment.
-Participants as a group demonstrated reductions in self-reported days of substance use by week, from baseline over time and between the two study phases. There were, however, no significant interactions of Site X Time X Treatment Condition
-Retention and substance use outcomes were good overall, with high rates of protocol treatment completion and low rates of substance use in both MET and CAU conditions across sites.
-For the full sample, there were no significant main effects of treatment condition or treatment | Strengths:
-Recruitment of a comparatively large and diverse sample of outpatients
-Delivery of treatment by a diverse group of therapists randomized to training condition
-Significant attention to treatment fidelity via ongoing supervision as well as independent evaluation of session tapes
-Particular care was taken to appropriately adapt the treatment and protocol for use with Spanish-speaking substance users (careful procedures for translation of assessment instruments, rating forms, and treatment worksheets; assurance of language proficiency among study staff; and multiple strategies to support recruitment and retention of a large Spanish-speaking population.

Limitations:
-20% of the participants interested in the study were | Notes:
-Any number of variables (e.g., alcohol vs. drug use, level of criminal justice involvement, severity level) could be considered as possible moderators of treatment effects, and interpretation of magnitude of effects across site may be confounded with a number of these variables. Moreover, one may need to consider culturally relevant variables, such as acculturation level, as moderators of treatment outcomes among Hispanic Americans
-High levels of retention have typically been considered not easily achievable among Latino populations (<90 days in treatment and high levels of abstinence)
-In the context of the heterogeneity of the study population as well as the apparent ceiling effects for retention and outcome, these findings suggest that individually delivered treatments offered in these |

condition X site interactions.
-There was some support for the secondary hypothesis that within the sub-group of participants whose primary substance use problem was alcohol, there was a significant effect of modest magnitude for treatment condition on days of alcohol use by week.
-There was a high level of variability across sites in participant characteristics and treatment outcomes.
-Overall, outcomes for this trial paralleled those of the English version in multiple ways. In both trials, MET was not significantly more effective than CAU for the full sample. Alcohol was the most prevalent substance use problem in both studies and there was some evidence of significant treatment differences within the alcohol-using subsample.
- This pair of studies adds to the literature suggesting that, within large and diverse clinical samples, MET's effects may be most discernable among those who use alcohol rather than illicit drugs

found to be ineligible due to lack of recent self-reported substance use, and 6% of those appropriately randomized did not initiate their assigned study treatment (representativeness of the sample)
-The time spent by the study therapists in training and supervision was not balances across conditions (MET therapists received regular, observationally based supervision throughout the trial, where are the CAU therapists participated in standard supervisory procedures at each performance site.

sites and delivered in Spanish were both attractive to and effective with this heterogeneous group of Hispanic adults; however, they also suggest that the differential effectiveness of MET may be limited to those whose primary substance use problem is alcohol and may be fairly modest in magnitude.

Culture/Context:
-Little is known about what addiction treatments are effective among Hispanic Americans
-Acculturation stressors, language and cultural barriers, and poverty make people of Hispanic origin particularly vulnerable within treatment and treatment settings
-Hispanics tend to be less likely to receive mental health and substance abuse treatment services than are European and African Americans
-Hispanics highly underrepresented in clinical and research samples
-Very few studies have addressed the efficacy or effectiveness on substance use outcomes of well-defined behavioral approaches for adult Hispanic substance users (2006 review identified only 2 RCTs of behavioral interventions expressly targeting adult Hispanic substance users and both reported very low rates of treatment entry and retention
-CTN developed y NIDA is well suited to address ethnic disparities by including larger samples of women, adolescents, and racial and

5	Dieperink et al. (2014) Aim: To determine the efficacy of MET on alcohol use in patients with hepatitis C virus (HCV) and an alcohol use disorder	Study Design: Randomized, single-blind, controlled trial comparing MET to a control education condition with 6-month follow-up (Empirical) Setting: Patients recruited from hepatitis clinics at the Minneapolis, Minnesota and Portland, Oregon Veterans Affairs Health Care Systems Participants: A total of 139 men and women patients with HCV and an AUD and continued alcohol use (n=139) were randomized to receive either MET (n=70) or a control education condition (n=69) over 3 months -Patients were referred to the study by hepatitis providers if they scored <3 on the AUDIT, or, based on clinical evaluation, were considered to be dinking excessive amounts of alcohol -The Portland, Oregon site also had flyers in the hepatology clinic and a minority of patients was recruited from the flyer -One study in the control condition was randomized but did not meet inclusion criteria and had no alcohol use data, and was excluded from the analysis, leaving 138 subjects with analyzable data -Eligibility Criteria: 1) Chronic HCV diagnosed via positive HCV antibody and polymerase chain reaction confirmation of viremia 2) Alcohol dependence or abuse	Interventions: Treatment Conditions: 1) MET condition- developed in conjunction with the NIAAA for project MATCH. Delivered by a licensed health-care professional (one physician, 5 psychologists). MET consisted of 4 sessions (30-45 min. ea.). At ea. Session participants were given feedback regarding their liver function tests and HCV-specific feedback was incorporated into each session in order to maximize motivation to reduce alcohol use Key elements included: discussion of the synergistic effects of alcohol and HCV on liver fibrosis; discussion of the impact of alcohol on antiviral therapy (reduced efficacy); and alcohol as a barrier to receiving antiviral therapy 2) Control Health education sessions- Administered by the same 6 licensed mental health clinicians as MET. Consisted of 4 sessions of general health education (30-45 min ea.). Topics included sleep hygiene, nutrition and diet, relaxation training and exercise. Health education was used to control for the effect of therapist contact (time) and provided individual clinician contact without engaging the participants in discussion of alcohol or motivational themes. At each session, liver function	Key Findings: At baseline, subjects in MET had 34.98% days abstinent, which increased to 73.15% at 6 months At baseline, subjects in control condition had 34.63% days abstinent, which increased to 59.49% at 6 months Results showed a significant increase in percentage of days abstinent overall (F=28.04, p<0.001) and significant group X time effect (F=5.23, p=.0024) with the MET group showing a greater increase in percentage of days abstinent at 6 months compared with the education control condition -There were no significant differences between groups on drinks per week -The effect size for the MET intervention was moderate (0.45) for percentage of days abstinent -Conclusion: MET appears to increase the percentage of days abstinent in patients with chronic hepatitis C, alcohol use disorders and ongoing alcohol use. -MET was significantly more efficacious than a control education condition for increasing percentage of days abstinent in a sample of patients with HCV and comorbid AUDs. Other measures of alcohol use, including drinks per week, heavy drinking days and abstinence, were not statistically different between groups. The effect size	Strengths: -Large/adequate sample size -Use of Random assignment to treatment condition -Good treatment fidelity monitoring- all clinicians were trained in administering both MET and the health education conditions, followed by group consultation with MI network trainers every other week. Providers received feedback regarding taped sessions both for adherence to MI principles in the MITI for MET sessions (6 measures of TX adherence) and adherence to the control condition, although no specific metrics were used for the control condition -Research assistants were blind to treatment condition -Use of reliable outcome measures for this population/problem Limitations: -All subjects were Veterans and most were male, thus results may not apply to all people with HCV -The only significant effect of MET was an increase in the percentage of days abstinent. It is possible that although they designed the control condition to be a neutral intervention with respect to alcohol use, it probably provided more support than a TAU approach, thus diluting the effect of MET -Other factors, such as giving control subjects their liver function tests and rigorous assessment of alcohol use,	Notes: -MET offers an evidence-based approach to the treatment of alcohol use in HCV patients and may help to reduce the overall burden from advanced liver disease -The subjects in the study had significant psychiatric symptoms and non-alcohol substance use. The mean BDI score was more than 17, indicating moderate depressive symptoms. Also, elevated BSI and PCL-C scores indicate significant anxiety and other psychiatric symptoms -The therapeutic effect of MET was most pronounced at 3 months -The most common non-alcohol substance used was cannabis but other substances were also used. -Despite these significant symptoms, MET was helpful in increasing percentage of days abstinent. This suggests that MET will be helpful in the broader population of people with HCV and comorbid AUDs Culture/Context: Race/Ethnicity~ -In MET group (70)-68.6% (48) Caucasian 28.6% (20) African American 0% Native American 2.9% (2) Other -In Control group (68)-66.2% (45) Caucasian 30.9% (21) African American 2.9% (2) Native American 0% Other

according to the DSM-IV-TR using the SCID
3) Veterans aged 18 or over, current alcohol use, drinking 7 or more standard drinks per week for each of the preceding 2 weeks or at least 1 heavy drinking day) per week for 2 weeks. A standard drink=14 g of pure alcohol or 12 oz. beer, 5 oz. wine or 1.5 oz. 80 proof alcohol

-Exclusion Criteria:
1) Meeting diagnostic criteria for opiate, cocaine, or methamphetamine dependence in the past 6 months
2) Pre-existing medial conditions that could interfere with participation in the protocol (i.e., brain trauma, cognitive impairment, dementia, psychosis, etc.)
* Cannabis abuse or dependence was not an exclusionary
*Medications to deter alcohol use was not an exclusionary but none of the participants were taking these

Assessment:
All participants were assessed for eligibility and to collect demographic information. Participants were assessed at baseline and at 3 and 6 months after baseline with the following measures:
1) Time-line follow-back (TLFB)-measured alcohol use over the prior 30 days
2) BDI-II- measured for depressive symptoms over the past 7 days
3) Brief Symptom Inventory (BSI)- measured anxiety and other symptoms over the past 7 days
4) PTSD checklist (PCL-C)- measured PTSD symptoms over

tests were given if available from chart

Outcome Measures:
1. Alcohol Use over past 30 days- Time-Line Follow-Back Interview (TLFB)
2. Depression- BDI
3. Anxiety & other Symptoms- Brief Symptom Inventory (BSI)
4. PTSD- PTSD Checklist-civilian (PCL-C)
5. Urine Drug Screen
6. Substance use other than alcohol over the past 30 days- TLFB
7. Blood Alcohol Concentration (Breathalyzer)
8. Biomarkers of Alcohol Use

-Measures given at baseline, 3-month, & 6-month follow-up

Treatment Fidelity Monitoring:

Data were self-reported days abstinent from alcohol and number of standard alcohol drinks per week 6 months after randomization. Measurements indicated significant fidelity to MI principles in the MET group

Procedures:
Participants were randomly assigned to MET or control condition using Pocock & Simon's minimization method. Randomization was stratified by site and BDI-II score. Within each strata participants were randomized in blocks of 4 using Random Allocation Software by the study's statistician

Data Analysis:
For sample size determination:

of the MET intervention was moderate (0.45) for percentage of days abstinent. This effect size is similar to most studies of treatment for AUDs.

may also have contributed to the reduction in alcohol use in the control condition
-The power to detect a difference between groups may have been hampered by their inability to collect biological measures samples from all subjects
-It was not possible for participants to be blinded to the intervention condition. However, research assistants who completed the research follow-up visits were blinded to the intervention condition assignment, thus mitigating this concern
-Attrition was a limitation even though more than 84% of both groups had follow-up data at 6 months and analyses included all participants
-Findings are limited by the 6-month follow-up period (however, 6 months is a typical follow-up period used by hepatologists to monitor alcohol use, so results at 6 months have clinical relevance and help to determine antiviral treatment readiness
~Future studies that examine long-term follow-up are needed to examine the impact of MET and alcohol use reduction on morbidity and mortality

-Baseline characteristics were provided but no analyses for group differences were conducted

the past 30 days
5) Urine drug screen
6) The TLFB was used to gather past 30-day use of cannabis, cocaine, methamphetamines, and non-prescribed opiates. Quantity was not obtained
7) Breath alcohol concentration as measured by breathalyzer
8) Bio-markers of alcohol use including percentage of carbohydrate-deficient transferrin (%CDT), ethyl glucuronide (EtG) and ethyl sulfate (EtS)

* All measures were administered by a research assistant who was blinded to the randomized condition.

1) The power analysis was performed for drinking days per week using Nquery Advisor 4 under the following assumptions: (1) repeated-measures ANOVA with main effects of treatment (control vs. MET) and time (0.3.6 months) and the treatment X time interaction. (2) compound symmetrical covariance matrix; (3) type I error level=0.05. The estimates for the mean, standard deviation and intra-subject correlation were obtained from a similar study conducted among 47 HCV-infected patients with heavy alcohol consumption. The treatment effect is captured by the treatment X time interaction (i.e., differential patterns of alcohol consumption over time). They calculated that a sample size of 136 patients (68 in ea. Group) would provide 87% power to detect an effect size of .30 ~Hence, this study was calculated to have sufficient power to detect the expected effect size of the primary objective

Calculating alcohol consumption: the primary end-point for measuring alcohol consumption was the number of standard drinks per week and percentage of days abstinent. These measures were well validated, used frequently in alcohol treatment studies and were included in the large NIAAA-funded Project MATCH

Analysis of outcome:
Each subject was assessed for the outcome variables at

baseline, 3 months, and 6 months. For the primary objective (i.e., the analysis of the efficacy of MET in reducing alcohol use), they used **mixed-effects models** to examine change over time in their analysis with both intercept and slope as random effects. For the secondary analysis, they used X2 procedures to test for differences in antiviral treatment initiation and regression analyses to examine relationships between reduction in alcohol use, %CDT and EtG/EtS. The Wilcoxon signed-rank test was used to evaluate changes in abstinence from baseline to 6 months.

-Multi-level models examined changes in alcohol consumption between MET and control groups

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6   Feldstein et al. (2009)

Aim: Examine moderators of MET intervention

Objective 1: Test whether a single session of MET increased motivation to reduce drinking and drinking outcomes

Objective 2: Examine whether genetic dopamine D4 receptor L (DRD4 L) and individual

Study Design:
-RCT

Participants:
N=75 emerging adults
M age=21
68% Male
87% Caucasian

-Participants were recruited via fliers that invited interested students to participate in an 'Alcohol study'
Inclusion Criteria:
Self-reported moderate to heavy drinking (2x per week with minimum of 4-5 drinks per drinking occasion)
-Each participant was paid $150 for participation
-Participants randomly assigned to receive either a single 45-

Interventions:
-MET condition: A single 45-minute MET session which followed the fundamental principles of MI and the procedures outlined in the MET manual

-Control: AE- standard treatment for college students seeking (or mandated) to alcohol treatment. During the session, interviewer provided participants with information and handouts on the social, behavioral, and biological effects of alcohol use. Interviewer did not elicit individualized information from participants, nor utilize open-ended questions but did answer specific questions

Key Findings:
-The MET sample had slightly larger decreases in the number of heavy drinking days but the drinking outcomes were not significantly different between the MET and the AE control condition
-Despite similar drinking outcomes, the MET group reported themselves as being significantly more likely than the AE group to have taken action to reduce their drinking
-With respect to the investigated moderators, the proposed genetic and individual risk factors indicated that, although the MET increased behavior change during the first 30 days after the intervention, these effects were stronger among individuals who

Strengths:

Limitations:
-Used a relatively homogenous, college-attending sample so can't generalize to a more diverse demographic
-The current sample may have underpowered their genetic analyses; replication with a larger sample size would provide greater support for their findings
-Although reductions in quantity and frequency of drinking were in the expected direction at the 1-month follow-up, these changes were not statistically different from those of the AE control sample; future studies utilizing

Notes:
-Study provides support for the notion that MET increases the motivation to change risky drinking behavior in an emerging adult sample and for at least a subset of individuals, these changes in motivation appear to be translated into drinking reductions

Culture/Context:
-College students
-MET group:
81.08% Caucasian; does not mention the race or ethnicity of the other participants
-In Control AE group:
93.10% Caucasian; does not mention the race or ethnicity of the other participants. No

personality risk factors (impulsivity and novelty seeking) moderated the effects of the MET

minute session of MET or an alcohol education control condition
-Individuals were randomized to condition prior to genotyping due to practical constraints
-8 participants did not complete the study, resulting in a final sample of n=67 participants
-Participants were screened via comprehensive phone screen including general health questions, consumption rates and alcohol use identification test (AUDIT).

-Baseline Measures:
(1) Demographics
(2) Motivation to change
(3) Moderators-Personality and alcohol history
(4) Outcome measures/changes in drinking behavior

about alcohol abuse

Measures:
1. Motivation to Change-Contemplation Ladder (adapted for use with alcohol) used to assess the level of motivation to change drinking behaviors (Given at baseline and at 30-day follow-up). Baseline score served as a covariate in analyses of intervention effects to statistically control baseline motivation across treatment groups
(2) Moderators (All assessed at baseline)- the Novelty-Seeking (NS) subscale of the Tri-dimensional Personality Questionnaire was used as a putative moderator of intervention effectiveness (reliability in the sample was adequate; alpha=0.75). The Impulsivity, Sensation-seeking scale (reliability in this sample was adequate; alpha=0.80). The Rutgers Alcohol Problem Index (RAPI) to investigate impact of alcohol on social and health functioning (reliability was high for this sample; alpha=0.88)
(3) Genotyping- genomic DNA was isolated from buccal cells using published procedures; 42% of sample was classified as DRD4 L and 58% classified as DRD4 S.
(4) Changes in Drinking Behavior- 4 outcome measures given at 30-day follow-up
3 of them were alcohol consumption items derived from the Timeline Follow Back
1 of them was the Taking Steps (TSP subscale of the Stages of Change Readiness and Treatment Eagerness Scale

were low in impulsivity/sensation seeking, low in novelty seeking, or had the S genotype of the DRD4 VNTR polymorphism
-The MET was not effective in influencing behavior change to reduce drinking among individuals who were high on impulsivity/sensation seeking, high on novelty seeking or for DRD4L individuals
-The MET only resulted in drinking reductions among emerging adults who demonstrated lower impulsivity, lower novelty seeking or had the DRD4 S genotype
-Study provides important data indicating that emerging adults with specific genetic and individual personality risk factors respond better to one type of intervention over another.

larger samples and longer follow-ups is necessary to replicate and extend their preliminary results

significant differences were found Between groups (X2(1)=1.99, ns)
-No significant differences were found between groups with regard to gender (majority male in both groups; 67.5% and 68.97%) (X2(1)<1, ns.

(SOCRATES). Reliability of the TS measure in this sample was high (alpha=0.93)

| 7 | Karno (2007)

Aim:
-Examine the role of session attendance as a mediator of the effect of confrontation on patients' subsequent alcohol use
-Demonstrate the process of testing for mediation as well as planning analyses to meet additional conditions that can lend support to a causal mechanism of change | Study Design:
Case study of mediators of treatment effectiveness; analyzed data to test other specific conditions needed for mediation and mechanisms of change (Non-experimental)

-Emphasis was placed on achieving the desired temporal sequence of the therapy intervention, the mediator, and the outcome variable

Methods:
Multiple regression analyses were used to test for session attendance as a mediator among (n=107) individuals with alcohol abuse or dependence who received either CBT (n=39), MET (n=34), or TSF (n=34).

Participants:
(*N*=107)
-30.8% female
-Average age=45
-95% Caucasian
-4% African American
-1% Unspecified

-All were at moderate or higher levels of trait anger as indicated by scores above the 25th percentile on the Trait Anger Scale
-All patients met criteria for a DSM-IIIR diagnosis of Alcohol Abuse or Alcohol Dependence and participated in either an inpatient or day-hospital treatment for their alcohol use prior to enrollment in Project MATCH

Setting: | Interventions:
N/A

Treatments in Project MATCH: 3 psychosocial treatments implemented-CBT, MET and TSF

-Delivered in an individual format and were time-limited to 12 weeks

(CBT & TSF=12 sessions; MET=4 sessions) | Key Findings:
-The data supported the role of session attendance as a partial mediator of the effect of confrontation on future alcohol use among patients who received CBT, but not among patients who received MET or TSF.
-In CBT, other potential mediators were not supported and did not change the support for session attendance in the model
-This study suggests that in CBT the negative impact of confrontation early in treatment is partially explained by a reduction in the number of sessions patients attend. Different processes appear to be occurring in MET and TSF. | Strengths:
-Met conditions for mediation

Limitations:
-Therapist confrontation was not experimentally manipulated; causality cannot be asserted
-A gradient effect was not demonstrated
-Results have not yet been validated across multiple studies and samples | Notes:

Culture/Context:
-Mostly Caucasian;
95% Caucasian
4% African American
1% Unspecified |

-All received treatment through the Providence Clinical Research Unit (CRU) of Project MATCH. This particular site was part of the aftercare arm

| 8 | LaChance, Feldstein Ewing, Bryan, & Hutchinson (2009)

Aim:
-Test the efficacy of a GMET versus two different mandated alcohol education groups with college students in an alcohol diversion program

-Determine what makes group MET work | Study Design:
Randomized Controlled Trial (RCT)
-Efficacy Research-

Sample: Recruited college drinking students in mandated alcohol diversion program (large western university student health center
-(N=206)
-88% White; 7% Hispanic, Asian, or African American; 5% unidentified
- 63% male (representative of many mandated college student drinking samples)
-M age= 18.6
-To be included, had to be over age 18, referred to diversion for an alcohol-related offense, and provided written informed consent

-Randomly assigned to 1 of 3 conditions: the standard- of- care 2 –session "Focus on Alcohol Concerns" education group (FAC); a single group MET (GMET) session; or a single alcohol information-only control group (AI)

-Evaluated the role of 5 mediators: readiness to change, self-efficacy, perceived risk, norm estimate, and positive drinking expectancies | Interventions:
-GMET group (n=68): 3-hour group followed by the MET procedures outlined in previous studies and adapted for group modality. First, the group engaged in a group decisional balance paradigm where students were asked to discuss the pros and cons of drinking. Next, students were provided personalized feedback handouts including their own self-reported drinking patterns, BAC levels, etc. Then the group leader employed reflections and empathic open-ended questions to develop participants' ambivalence regarding current substance use. Then group leader engaged group on a discussion of harm-reduction approaches through encouraging participants to help one another develop behavioral strategies to alter high-risk drinking, substance abuse, and risk taking

-FAC group (N=80):
Two 3-hour groups designed to educate students on alcohol and substance abuse, consequences of use, legal policies, and university resources. Also received a handbook, watched an alcohol-education video, took a quiz, completed a calendar to estimate use over the past year, information about STDs, how to identify substance problems, | Key Findings:
-At 3- and 6- month follow-ups, GMET students demonstrated greater reductions in problem drinking outcomes (drinks per day, hazardous drinking symptoms, and alcohol-related problems) compared with those in an extended alcohol education group (FAC) or a brief information group (AI).
-Findings support previous studies indicating that GMET is a promising cost-effective treatment for students in mandated alcohol programming
-In this study of high-risk drinkers, one session of GMET was able to significantly shift immediate cognitions and perceptions as well as initiate and sustain significant changes in follow-up drinking behavior
-Of the 5 mediators proposed, only **self-efficacy** emerged as a significant mediator
-91% of all participants rated their experience as "good" or "excellent" | Strengths:
-Used reliable measures to assess alcohol problems
-Assessed for pretest equivalence of conditions across demographics and baseline measures via ANOVAs
-Large to very large effect sizes found in this study; changes in immediate cognition and long term behavior were substantive
-Evaluated treatment fidelity using a 12-item questionnaire
-Generated clinically significant findings

Limitations:
-Data were gathered by self-report and therefore social desirability, self-report biases, and poor recall could have contributed to measurement error. To minimize this, follow-ups were administered via Internet assessments to reduce demand characteristics
-Not possible to determine the representativeness of the sample because potential participants were referred to participation in the research study by alcohol diversion staff
-All data were self-report without biologically verified drinking assessments
-Measures varied in terms of length and quality, potentially leading to underestimations of the relationships in this study
-The pattern of attrition | Notes:
-Group MET has been found to catalyze problem drinking reductions among college student sample
-Research supporting the use of single-session GMET in college samples is emergent but no studies have evaluated a comprehensive model of the potential active ingredients of this group intervention
-Discusses potential mediators of change of GMET
-MET is an empathic, non-judgmental, and directive way of being with people
-In addition to the central tenets of MI, MET consistently includes the provision and discussion of normative feedback (Miller et al., 1999)
-Greater support for individual versus group interventions but individual interventions are not always feasible or cost effective
-Large reviews have indicated that brief interventions have gained the strongest empirical support in effectively treating alcohol use disorders (Miller & Willbourne, 2002)
-Group MI has the potential to be an efficacious and cost-effective alternative for public health secondary prevention in university and court diversion programs
-GMET engages the opinions of multiple students and enables group members to be |

and overview of university resources. The group leader does NOT elicit individualized information or engage in collaborative harm reduction

-AI group (*N*=58):
One 3-hour informational group. Group leader provided handouts on the social, behavioral, and biological effects of alcohol and other substances. Then they got A FAC handbook but in a significantly shorter format. Group leader did not elicit individualized feedback or engage in collaborative harm reduction

-All conditions were given information in legal requirements for drinking and driving and general information on physiological effects of substances.

-Measures:
1. Demographic questionnaire (age, sex, marital status, SES, occupation, income, education, race/ethnicity)

-Outcome Measures:
1. Average drinks per day (DDD)-Alcohol use history questionnaire
2. Hazardous drinking- The Alcohol Use Disorders Identification Test (AUDIT)
3. Alcohol-related problems- The Rutgers Alcohol Problem Index (gold standard for college-age and late adolescents)

-Measures of Proposed Mediators:
1. Readiness to Change-The Stages of Change Readiness

observed may have influence their model estimations
-The degree to which unmeasured group process differences across the groups may be accountable for outcomes is unclear; specifically, the influence of therapists, groups, and their interactions can have a life of their own, such that interactions between group members may impede disclosure and diminish quality of discussion across all different interventions.
-Study did not explore potential moderators of GMET's effectiveness, and recent research has demonstrated the importance of individual level variables in predicting response to MI/MET interventions

the "experts" in generating and disseminating plausible problem drinking strategies; may help students who previously felt judges or disparaged to fell useful and like they have something to offer others in need
-Provides harm reduction strategies that may be more useful and more viable for some
-Discusses clinical significance of findings
-More research is needed on the actual mechanisms of GMET's efficacy
Culture/Context:
-College drinkers exhibit the highest rates of alcohol consumption and represent the largest percentage of problem drinkers in the nation
-Readiness to change (one of the most important factors in MI/MET success) has received mixed evidence in college samples

and Treatment Eagerness Scale (SOCRATES)
2. Self-Efficacy- The Drinking Refusal Self-Efficacy Questionnaire (DRSEQ)
3. Perceived Risk- The Perceived Risk Behavior Questionnaire (P/RBQ)
4. Norm Estimates- single item query "How many drinks do most students have while they party?"
5. Positive drinking expectancies- The Positive Drinking Expectancies Scale (DEQ)

-Treatment Fidelity and Satisfaction was measured with a 12-item questionnaire

9	Magill, Stout, & Apodaca (2013) Aim: Examine two core principles of MI with alcohol and other substance use disorders -The two principles: 1. Therapist focus on ambivalence and commitment to change 2. Goal Assessment Purpose: Examine three putative active ingredients of MI in context of a multisession MET intervention	Study Design: Longitudinal Analysis of MI treatment ingredients (Correlational) -Participants: Adult alcohol users involved in Project MATCH Aftercare [AC] and Outpatient [OP] -Sample and Procedure: In project MATCH, the aftercare (AC; n=774) and outpatient (OP; n=952) samples were recruited following residential or detoxification -Majority of participants met criteria for alcohol dependence (assessed with structural clinical interview) -Signed informed consents -Participants were randomized to one of three 12-week individually delivered interventions: CBT, TSFT, MET- Focus of study was on the MET group	Interventions: -MET Intervention condition consisted of four individual treatment sessions occurring at weeks 1,2,6,and 12 of the study -Intervention based on the principles of MI -Use of manualized protocol (with content areas and therapeutic style) -Study Therapists: had at least a certificate in counseling, at least two years of post-education clinical experience, experience working with alcohol users, and allegiance to family, systems, or client-centered methods of therapy. Therapists were trained and supervised throughout the process -Intervention was delivered with high level of treatment integrity and discriminability in relation to the CBT and TSF conditions Measures:	Key Findings: -Contrary to expectations, therapist focus on ambivalence across four sessions of MET was not a consistent predictor of reduced drinking frequency -The present study supported a focus on ambivalence as a *contraindicated treatment ingredient* in relation to drinking quantity -Therapist focus on ambivalence predicted worse drinking quantity outcomes among clients in the OP arm of the study, and when motivation was low, in the AC arm. -Therapist focus on commitment was associated with improved drinking outcomes for all participants across both outcome measures. Thus, focus on commitment is an independent, active ingredient within this sample -Therapists in both outpatient and aftercare arms of the study tended to focus more on commitment as clients	Strengths: -The 4-session protocol of MET allowed for analytic advances that could not occur with typical single-session studies Limitations: -The sample was derived from Project MATCH so caution is warranted -The version of MI (MET) that was used in Project MATCH represented a distinct application of MI delivered across four sessions, which is in contrast to a number of MI process studies that have been conducted with single-session applications -It attends to key dynamic of motivational interventions and within a longitudinal multisession framework -Adds to the evidence supporting a *focus on commitment* as an active ingredient in MI but whether this ingredient is unique to MI is unknown	Notes: -Discussed the three different hypotheses of MI (three different levels of MI process analysis): technical, relational, and conflict resolution Culture/Context:

-Baseline covariates-
1. Alcohol use in the 30 days prior to baseline assessment was derived from the calendar-based Form 90 Interview
2. Baseline motivation- URICA (has demonstrated internal consistency but results on validity of subscale clusters have been mixed).

Outcome Measures:
1. Treatment measures- 15-item therapist report measure
2. Alcohol outcomes- assessed using the Form 90 with the two drinking outcomes being percent days abstinent (PDA) and number of drinks per drinking day (DDD).

-Data Analysis: Client baseline and therapist predictor descriptives were examined with means, standard deviates, and frequencies; Therapist intervention effects on alcohol use were examined with a series of multilevel models, while controlling for the effects of baseline alcohol use and the linear effect of time
-Nested analytic approach
-Analyses were conducted in SAS 9.2 PROC MIXED.

progressed through treatment, and with a peak at session 2. In contrast, there was relatively less focus on ambivalence over time.
-Processes of ambivalence and commitment rose about other therapist foci tested as putative ingredients of MI; the MI relational style variable (focus on empathy and self-efficacy) was consistently non-significant and was trimmed from the analysis.
-Therapist assessment of client goals and drinking was associated with worse drinking quantity among AC participants and not among OP participants
-Therapist focus on ambivalence and commitment were independent of the more general process of goal assessment

-Limitations in process measurement so unable to examine whether the active ingredients were uniquely predictive in the MET condition, or additionally important in CBT and TSF
-Their measures are best framed as approximations of MI processes that should be replicated with observational rating approaches
-Generalizability from the present study may best apply to populations similar to those who participated in Project MATCH (treatment seeking and primarily alcohol dependent)
-Replication of varying stages of the change process is needed
-While lagged longitudinal models increase confidence in their results, caution is warranted when drawing conclusions from correlational studies.

| 10 | Martin & Rehm (2012)

Aim: Review the effectiveness of psychosocial modalities in the treatment of alcohol use disorders and problems
-Examine the impact of therapists on | Study Design:
N/A

Review of the literature on published systematic reviews published after 2000 | Interventions:
N/A | Key Findings:
-Strong evidence that some but not all psychosocial treatments are effective in treating alcohol problems. Those with the strongest empirical support are MET, various CBT interventions, and brief interventions.
-Meta-analyses for several of these modalities suggest typical effect sizes in the low-to-moderate range.
-When modalities are compared | N/A | Notes:

Culture/Context:
-No mention of culture, ethnicity, race |

treatment outcome
-Examine the evidence on nest practices for comorbid conditions
-Examine the evidence on treatment matching

with one another in well-designed clinical trails, they have been shown to be of comparable effectiveness
-Little basis on which to recommend one of these modalities over another but good reason to choose from among them
-Improvements to treatment can be facilitated by greater use of treatment manuals and effective training in their use
-Most critical need is for greater attention to therapist performance
-Therapist variability should not be ignored
-Empirical evidence to guide matching clients to particular treatments remains weak
-There is hope that a personalized approach to psychosocial treatment will improve effectiveness and effect sizes, especially for long-term outcomes
-The ability to form strong working alliance with the client is an important mechanism by which clinicians impact treatment outcomes

| 11 | Montgomery, Burlew, Kosiniski, & Forcehimes (2011)

Aim: Address the knowledge gap concerning the efficacy of substance abuse treatments among African Americans

-Evaluate the efficacy of MET on reducing primary substance | Design: Secondary analysis of a RCT conducted by the CTN of NIDA

-Method: Assessed outcomes among 194 African American participants in the CTN trial
-Eligibility, enrollment, randomization, treatment, and follow-up rates for African American participants:
1) Eligibility: Seeking outpatient TX for any substance use disorder, had used substances within 28 days prior to the study, were 18 years or older, were | Interventions:
-3 sessions MET (45-55 min ea.) during 4 week active phase then 12 weeks CAU in follow-up stage OR

-3 sessions CAU (45-55 min ea.) during 4 week active phase then additional CAU sessions in the follow-up stage

Outcome Measures:
1. Substance Use- Substance Use Calendar (SUC) (i.e., number of self-reported days of primary substance use per week for each of the 16 study | Key Findings:

-Higher retention rates among women in MET than CAU during the initial 12 weeks of the 16-week program
-Men in MET and CAU did not differ in retention
-MET participants self-reported more drug-using days per week than participants in CAU

H1: MET participants reported using primary substances more often than CAU participants, $F_{(4, 2307)}=11.1$, $p<.001$, during the study period, with the | Strengths:
-Study addressed 3 major gaps in the literature (a) examining retention and substance use outcomes specifically among African American MET participants, (b) assessing outcomes in generic (i.e., not culturally tailored) version of MET, and (c) identifying gender as a potential moderator or that may explain the inconsistent findings in the past research on the efficacy of MI/MET for African Americans
-The CTN data used to | Notes:
-MET is one low-cost potential approach for addressing the need for more effective treatments for African Americans
-MET fits within the framework of stages of change theory with particular emphasis on personal assessment feedback within the overall clinical style of MI
-MET consists of 2 phases: building motivation for change and strengthening commitment to change (same as MI) |

use and increasing retention

willing to participate in the protocol, and were able to understand and provide written consent.
-Excluded: individuals too medically or psychiatrically unstable to participate in O.P. & individuals seeking only detox, methadone maintenance TX, or residential TX

Setting: 5 participating community treatment programs (CTPs)
Eligibility: provided outpatient in a non-methadone-maintenance setting, controlled adequate #s of patients to meet the recruitment targets for the parent study (i.e., 100 participants per CTP, with approx. 50 participants per TX group) and had at least 6 clinicians willing to participate in the protocol.

Participating clinicians:
Eligible clinicians were currently employed at the participating CTPs, were willing to use manualized version of MET, were willing to accept an assignment to either MET or standard treatment, and were approved by the CTP's administrative/supervisory staff as appropriate for the study. Clinicians with prior MI/MET training were ineligible.
H1: African American participants in MET would self-report less use of their primary substance than African Americans in CAU (counseling as usual)
H2: African Americans in MET would achieve higher retention rates than African Americans in CAU

weeks)- Adapted from the Form 90 and TLFB

2. Retention (# of days between day of enrollment and the last day the participant received services at the clinic during the 16 study weeks) assessed using the Client Disposition- End of Trial Status Form

Procedure:
Following baseline assessment, participants were randomly assigned via urn randomization to receive either 3 sessions of CAU or MET
After randomization, participants began either 3 MET sessions in the active phase and CAU in the follow-up phase (i.e., 12 weeks following the active phase) OR 3 CAU sessions in the active phase and additional CAU sessions in the follow-up phase

Data Analysis Procedures:
-Longitudinal analysis using linear mixed modeling to determine treatment difference (MET vs. CAU)

difference occurring primarily in weeks 1-8. This finding was also true for both men($p=.001$) and women($p=.001$).
-Logistic regression analysis revealed no significant differences ($p=.52$) on the probability of positive urines between participants in MET and those in CAU during the 4 week active phase. Similar findings emerged when examining gender by treatment differences ($p=.68$) on the probability of positive urine screens

H2: A log-ranked test comparing Kaplan-Meier survival curves for women revealed significantly better retention among women assigned to MET (log-rank statistics=3.84, $p=.05$) than women in CAU during the initial 12 weeks (log-rank statistic=2.90, $p=.09$, for 16-week data)
-No retention differences were evident for men
-MET and CAU participants overall did not differ significantly on retention

Discussion: Similar to the original study (Ball et al. 2007), the findings did not support the hypothesis that MET would reduce substance use among African Americans in 5 CTPs. In fact, MET participants self-reported using primary substances more often than CAU participants. This finding was also true for African American women and men.

conduct the secondary analysis had several strengths, including random assignment of participants and therapists to tx conditions, the use of therapists to tx conditions, the use of therapists certified in MET, and the inclusion of therapists without prior allegiance to MET

Limitations:
-These limitations are common to clinical trials:
-inconsistencies in treatment delivery
-inconsistencies in training
-possible contamination of therapy conditions

Because these limitations apply to both TX conditions, there is no evidence that these limitations had any influence on the current findings. However, encourage researchers to address these limitations in future research.

-Several recent meta-analyses support the efficacy of MI/MET for treating excessive drinking
-Some studies have found that MI/MET was no more effective than a comparison condition in improving retention and urinalysis outcomes
-Examining whether MI/MET works differently across ethnic groups and other participant characteristics might help explain the variability across studies
Culture/Context:
-Adverse consequences of drug use are reportedly greater in the African American community than in other groups
-African American substance abusers experience more negative health and social consequences, higher risk of HIV transmission, and more substance abuse-related legal involvement
-Disproportionate admission rates among African Americans (21% of admissions to publicly funded substance abuse treatment in 2006) are coupled with lower retention rates
-Limited empirical evidence concerning the efficacy of substance abuse treatments among African Americans reduces opportunities to evaluate and improve program efficacy
-Many studies suggest that ethnic minority groups have lower retention, higher dropout rates, and poorer compliance in substance abuse treatment
-Important to increase

| 12 | Moos (2006)

Aim:
Describe four related theories that specify common social processes that protect individuals from developing SUDs and may underlie effective psychosocial treatments for SUDs
-Identify the theory-based active ingredients of effective treatments for substance use disorders | Study Design:
N/A
Journal Article (Theoretical)

Provides an overview and rationale for MI/MET, 12-Step Facilitation Therapy, CBT, and Behavioral Family counseling and the theories underlying the active mechanisms of change in each. | Interventions:
-N/A | Key Findings:

-Discussion of theoretical perspectives of each approach-
1. Social Control Theory- strong bonds with family, friends, etc. motivate people to engage in responsible behaviors and refrain from substance use and other deviant behaviors
2. Behavioral Choice Theory/Behavioral Economics- involvement in protective activities. The key element of the social context is the alternative rewards provided by activities other than substance use
3. Social Learning Theory- substance use originates in the substance-specific attitudes and behaviors of the adults and peers that are their role models. Modeling effects begin with observation and imitation
4. Stress and Coping Theory- Stressful life circumstances emanating from family members and friends, school, work, etc. lead to distress and alienation and eventually to substance misuse.

-All four theories identify comparable protective social factors, that if present, protect individuals against the initiation and development of substance use disorder

-This review focuses on the psychosocial processes involved in SUD and does not address biogenetic or pharmacological factors | Strengths:
N/A | retention rates because length of time in TX is one of the best predictors of better outcomes
Notes:
-Article explains the active ingredients of MI/MET for SUDs
-Consistent with social control theory, one set of active ingredients of MI and MET is an empathic, collaborative relationship between the client and psychologist and the structure of the goal direction associated with a shared understanding of the aims of treatment
-Likely reason for the relative effectiveness of MI/MET is the explicit attention to strengthening clients' self-efficacy and responsibility for and commitment to change, which is consistent with stress and coping theory
-Compared to MI clients who use weak commitment language* were more likely to achieve abstinence outcomes up to 12 months later
-Clients' acceptance of personal responsibility for and commitment to change and resulting commitment language may be the key mediating factor between the emphasis in MI and MET on boding and goal direction, normative feedback, and eventual substance use outcomes
-MI and MET use reinforcement to affirm clients' strengths, promote behavior consistent with clients' values, and selectively reward clients' motivation for change |

- Each of the four sets of effective psychosocial (MI/MET, TSFT, CBT, BFC) treatments for substance use disorders relies on one or more of the social processes associated with these theories

-Important ingredient of TX in MI/MET is likely to be the normative feedback (people evaluate and change their substance use behavior in relation to prevailing social norms)

Culture/Context:
No mention

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13   Morgenstern, Kuerbis, Amrhein, Hail, Lynch, & McKay (Morgenstern et al.) (2012)

Aim: Test the causal role of key hypothesized active ingredients and mechanisms of change within MI in reducing drinking

Study Design:
Pilot Study (Experimental)
RCT-random assignment with 3 conditions

-3 conditions:
1. MI (MI)
2. MI without directive or technical elements (SOMI)
3. Self-Change Control Group (SC)

Sample: (N=89) problem drinkers with a diagnosis of AUD seeking help to *reduce* drinking

Interventions:
-All participants received feedback from an RA during intake appointment, including description of their AUDIT score
-Treatment delivered in 4 sessions lasting between 45 – 60 minutes at weeks 1,2,4,8 in MI and SOMI groups
-SC group received no treatment
-MI group: Used adapted MI condition from MET used in project MATCH and revised the personalized feedback module to include percentile rank in terms of quantity and frequency of drinking compared with a normative sample of adults in the U.S.; and information about risk factors for delivering alcohol dependence. Another revision to the MATCH MET intervention was that there was no "significant other" involved in any sessions and all discussions regarding goals were geared toward moderation rather than abstinence.
-SOMI group: consisted of the non-directive elements of MI (warmth, genuineness, egalitarianism), emphasis on client responsibility for change, reflective listening, and avoidance of MI-inconsistent behaviors (advise, confront,

Key Findings:
-MI significantly increased change talk relative to SOMI
-At the end of treatment, the three conditions yielded equivalent outcomes,
-One-month post-treatment follow-up of MI and SOMI yielded similar equivalent outcomes
-Differences in outcome across conditions were small and SOMI had slightly better outcome at end of treatment than MI.
-MI relative to the other conditions resulted in a more rapid reduction of drinking in the first two weeks
-There was a more gradual reduction in drinking in the other conditions that eventually led to equivalent outcomes across conditions in later weeks
-MI's superior effects relative to SOMI were mediated by an increase in change talk
-Experimental manipulation of therapist directive interventions led to client increases in change talk that, in turn, mediated MI's effects on drinking reduction~ results should be interpreted cautiously given the nature of the evidence

Strengths:
-Overall, findings support the value of study designs that experimentally manipulate hypothesized active ingredients of treatments and test their link to change mechanisms and outcomes
-Use of reliable and valid measurements
-Use of blind coding

Limitations:
-Relatively small sample size and short-term follow-up
-Findings of equivalent effects for MI and SOMI may be limited to problem drinkers seeking moderation who voluntarily attend treatment with minimal coercion from outside sources; excluded individuals who were legally mandated to treatment and most reported minimal social consequences as a result of their drinking
-Results are limited by the post hoc nature of the analyses and small sample
-Their coding of change talk was limited to one method; results of the post hoc analyses may have differed had a different coding approach been used

take expert role, interpretation).
-SC group: Incorporated elements hypothesized in the MI literature to contribute to change, but not associated with relational or technical active ingredients.

| 14 | Noknoy, et al. (2010)

Aim: Determine the effectiveness of MET for hazardous drinkers in Primary Care Unit Settings (PCU) in Rural Thailand | Study Design:
RCT

-1 intervention group and 2 control groups

Setting:
8 PCUs in Thailand

Participants:
N=117 participants
-91% male
-Age 18-60
-Hazardous drinkers, not dependent

-59 randomized to intervention group; 58 to control group. | Interventions:
-Those allocated to the intervention group were individually invited to see a nurse during the initial visit

Outcome Evaluation:
-Self-report
-A health survey questionnaire administered in a face-to-face interview in scheduled appointments at the PCU was used to collect outcome information

-Primary outcome measure=the amount of
-All measurements were from the health survey questionnaire alcohol consumption during the previous week, measured in 4 ways:
1. Drinks per drinking day (DDD)
2. Hazardous drinking per week during previous week (yes/no)
3. Average drinks per week during the previous week (drinks/week)
4. Hazardous drinks per week during previous week (yes/no)
5. Frequency of binge drinking (past week)
6. Frequency of being drunk (past month)

Measures were taken at 6 weeks, 3 months, and 6 months

-Blood samples were obtained | Key Findings:
-There was a consistent between-group difference in drinks per week, whether measured over the past week or over the past month, of not less than 6 standard drinks at all follow-up intervals in all comparisons made
-The study showed higher mean GGT levels in both the intervention and control groups at 6-month follow-up relative to the baseline levels, with a larger increase seen in the control group, although these data are quite skewed
-There was a difference between the mean GGT levels in the intervention group compared to the control group at follow-up, which fell below the conventional threshold for statistical significance in the regression model | Strengths:
-Study adds a further trial to the many primary studies and systematic reviews that find brief interventions to be effective in reducing self-reported hazardous drinking in primary care populations
-The main findings have been found to be fairly robust across the various sensitivity analyses of the primary outcome measures
-High rates of follow-up maintained to 6 months

Limitations:
-The total number of people who were screened using AUDIT was not recorded, and this leads to some uncertainty about the external validity of these findings
-Although they sought to exclude those who were alcohol dependent by clinician assessment of DSM-IV criteria, the high mean AUDIT scores at baseline strongly suggest that exclusion of those with alcohol dependence was unsuccessful and they did not measure dependence among trial participants
-Small number of women in the study; could not determine the effect of gender on outcomes, nor be confident that the main findings can be validly applied to women
-Fidelity to MI was not | Notes:

Culture/Context:
-Took place in rural Thailand
-Used a Thai Language version of the AUDIT
-The effectiveness of these interventions is likely to depend on the alcohol culture of the society in question as well as on the delivery agent, the setting and the specific approach used
-Baseline data was collected immediately following 'Kao Pansaa,' a 3-month period of Buddhist retreat during which it is customary for people to avoid wrongdoing, including limiting their alcohol consumption. After this period, normal drinking patterns are usually resumed. |

				from 101 participants at 6-month follow-up	assessed so it is unknown to what extent the intervention-as delivered-represents an optimal and valid test of the particular intervention -The extent and nature of training provided in the study was sub-optimal by current international standards -The possible significance of urban rural differences in receptivity to brief interventions was not explored -The longer term course of the effects observed are unknown	

15	Peterson, Baer, Wells, Ginzler, & Garrett (2006) Aim: Evaluate the short-term effects of a brief motivational intervention to reduce alcohol and drug risk among homeless adolescents	Study Design: Randomized 3 (group) X 3 (time) partial repeated measures design Population/Sample: Convenience sample -Homeless adolescents recruited from drop-in centers at local agencies and from street intercept- In Seattle -Paid $90 after each interview (but not after intervention) -Interviews took place at one of two field-site offices located in two different areas frequented by homeless youth N=285 Ages 14-19 -54.7% male/45.3% female -72.3% Caucasian; 15.9% Mixed race; 3.2% African American; 3.2% Native American; 3.2% Hispanic/Latino; <1% Asian/Pacific Islander or other -67.4% heterosexual; 4.5% gay/lesbian; 24.4% bisexual -Randomly assigned to either a brief Motivational Enhancement	Interventions: -ME Group (N=92): 1-session motivational intervention presented personal feedback about patterns of risks related to alcohol or substance use in a style consistent with MI. -Assessment Only control group (n=99) -Assessment at follow-up only control group (n=94) *Measures:* Screening Measures- 1. Frequency of alcohol use and drug use in the past 30 days was assessed during the screen for the full sample using a 7-point Likert scale 2. Frequency of binge drinking in the past 30 days was assessed on a 6-point Likert scale (Binge= 4+ standard drinks for females and 5+ for males) Alcohol and drug use frequency- 1. Interviewers asked youths to recall their alcohol and drug use across the prior 30 days using a TLFB interview	Key Findings: -Youth who received the motivational intervention reported reduced illicit drug use other than marijuana at 1-month follow-up compared with youths in the control group -Treatment effects were not found with alcohol or marijuana -Post hoc analyses within the ME group suggested that those who were rated as more engaged and more likely to benefit shoed greater drug use reduction than did those rated as less engaged -Results from the trial provided mixed support for efficacy of the brief intervention as delivered -Treatment effects were not robust across multiple outcome measures, as no measurable effects were note with respect to use of alcohol and marijuana -Small effect sizes	Strengths: -Good retention rate (80%) -Use of random assignment Limitations: -Significant effects were not observed across all outcome measures and therefore the significant findings with respect to illicit drug use other than marihuana should be interpreted cautiously -Use of a convenience sample; not able to use sampling methods that might ensure a truly representative sample of the broad population of homeless adolescents -Different staff was used to conduct baseline assessment and follow-up interviews so differences at 1-month could be due to differences in interviewers -Follow-up interviewers were no bling to condition-threat to integrity of the design -Outcome measures were assessed using self-report; however, they tried to validate with urine samples. Also, several studies suggest that self-report of drug use is reasonably valid	Notes: -The potential advantage for brief interventions is that they are less costly and demand much less from a hard-to-reach population -Among adolescents, change in substance use patterns is more common than stability and there appear to be natural developmental processes toward moderation of use Culture/Context: -They did not find that characteristics such as age, gender, length of time on the street, or baseline drug use explained differences in level of engagement, but the possibility of dispositional factors cannot be ruled out

		Study Design	Interventions / Measures	Key Findings	Strengths / Limitations	Notes
		(ME) group or 1 of 2 Control groups -Follow-up interviews were conducted at 1 and 3 months post-intervention -There was also a brief check-in at 2-months for the purpose of sample maintenance -Urine sample collected at 3-month interview	procedure. 11 categories of substances were assessed Drug Use consequences- 1. 23-item Rutgers Alcohol Problem Index (RAPI) Stage of Change- Used an algorithm based on intention to change alcohol or drug use, whether changes have already been made, and the time frame of those interventions or changes Intervention Engagement- For ME group only, psychologists completed a brief checklist of the elements of the intervention completed using a 5-point Likert scale (a= .87)		-The measure of intervention engagement is limited -Youth ratings of intervention were so consistently positive that a clear ceiling effect limited any predictive capacity	
16	Polcin, Galloway, Palmer, & Mains (2004) Aim: Make the case for a higher dose model of MET	Study Design: Theoretical -Journal Article-	Interventions: N/A	Key Findings: N/A Summary: The authors propose that adding an additional 8 sessions to the standard 4-session MET protocol would be beneficial. Their rationale is based on descriptive previously conducted descriptive studies documenting that the length of treatment is a predictor of outcome and well-controlled, randomized psychotherapy trials for other disorders, such as depression, show a dose-response relationship, and conceptual considerations about the nature and process of psychotherapy	Strengths: -N/A Limitations: N/A	Notes: -Authors discuss the existing research on MET and the potential limitations of MET -Authors discuss the potential content of added sessions based on MET principles in addition to the standard protocol -Standard MET techniques: 1. Rolling with the resistance 2. Heightening discrepancies 3. Expressing empathy 4. Using reflective listening -Additional sessions would continue to focus on progress made on the clients' change plan, revise goals, and revise strategies for accomplishing goals.
17	Richardson, Adamson, & Deering (2012) Aim: Investigate	Study Design: Exploratory study of Therapeutic alliance in brief outpatient treatment for alcohol dependence -Correlational-	Interventions: Measures: 1. Therapeutic Alliance (TA)-	Key Findings: -TA was significantly correlated with the Alcohol Problem Questionnaire (APO) at 6	Strengths: Limitations: -Having several points in time	Notes: -Current findings give insight into the role of TA in an outpatient alcohol dependent

	the relationship between therapeutic alliance (TA) and treatment outcome for alcohol dependent clients participating in a RCT between MET and Non Directive Reflective Listening	-Longitudinal research- -Measurements taken at 3 time points Participants: N=69 -Ranged in age from 17 to 59 years -54% Male -38% married -10% of Maori ethnicity -Mean education level=12.1 years -Mean onset of alcohol dependence= 28.5 years	Four Item questionnaire focused on the therapists' experience of working with the client, completed after the final session, or at week six for clients not attending their final appointment (Excellent internal validity; Cronbach's alpha= .94) 2. Treatment outcome was assessed by the following related measures: Drinking frequency (percent days abstinent, PDA) and drinking intensity (drinks per drinking day, DDD) were recorded using the Timeline Follow back (TLFB) procedure and were measured at two points in time; initial treatment response (6 weeks) and treatment outcome measured at 6 month follow-up -Unequivocal Heavy Drinking (UHD)=10+ standard drinks on 6 or more days over the 6-month follow-up period -Alcohol related problems were measured using the Alcohol Problem Questionnaire (APQ) -Alcohol dependence severity was rated using the Leeds Dependence Questionnaire (LDQ); this measure has been validated on a New Zealand client population	months and with change in APO scores between baseline and 6 months -These relationships remained significant when treatment assignment was controlled for -There were no statistically significant differences between those who were followed up at 6 months compared with those who were not for baseline demographic variables -There were no statistically significant differences between the 2 groups on PDA and DDD measures at baseline or 6 weeks, or with APQ and LDQ scores at baseline -84% of participants in the two treatment groups attended all four sessions -The mean TA was significantly higher for clients who attended all four sessions compared with the mean for those who attended one to three sessions (7.44, compared with 5.50, DSs 1.48 and 1.00 respectively, t=3.97, p=.001). -The mean TA was scored higher for those clients assigned to MET compared to those assigned to NDRL, but the relationship was not significant -TA was correlated with change in PDA between baseline and 6 weeks; the greater the TA, the greater the increase in PDA	at which clients needed to be interviewed increased the likelihood of missing data as some clients were hard to locate or unavailable, thus reducing the strength of the findings -Unable to control for early response when using alcohol problems (APQ) as the outcome measure -Measures of client and observer ratings were not available for investigation in this study comparison between therapist, client and observer ratings of alliance and treatment outcome, and the examination of rater bias was not possible.	population (an area for which there is a relative paucity or research) -The current study looked at the relationship with alcohol use at two points in time, 6 weeks and 6 months, thus offering insight with regard to differences that may occur between early treatment response and post treatment outcomes Culture/Context: -10% Maori ethnicity
18	Sellman et al. (2001) Aim: To investigate the effectiveness of MET in an outpatient sample	Study Design: Randomized controlled trial (RCT) with two control conditions -Addressed two key questions: 1. Is MET more effective than feedback and follow-up alone?	Interventions: -All participants received a two-part comprehensive assessment, feedback/education session and 6-week review. -One group received no further counseling (NFC group)	Key Findings: -There was significant overall treatment effect, with dramatic drop in the percentage of subjects who drank 10 or more standard drinks, six or more times during follow-up (from 90.2% to 56.6%) at follow-up.	Strengths: -Relevance to clinical practice- the patients recruited were the real-life patients of an outpatient alcohol and drug service; the assessors and therapists executing the study were real-life clinicians of the	Notes: Culture/Context: -Study was conducted in New Zealand at a church -No mention of race, ethnicity, culture

of patients with alcohol dependence, with a particular emphasis on studying MET in a real-life setting

2. Is MET more effective than four sessions of nondirective reflective listening (NDRL)

Sample: 125 subjects; 122 successfully completed follow-up.
-All patient had mild-moderate alcohol dependence
-Mean age was 35.7 years
-57.4% men; 42.6% women
-1/3 married; 22.2% separated, divorced, or widowed; 43.4% had never been married.
-Years of formal education ranged widely, from 7 to 22 (mean=11.7)

-2 randomization processes were utilized

-Both counseling groups (MET and NDRL) received, in addition, a four-session manualized therapy that included reflective listening, but for MET this simple therapeutic technique was enhanced through a strategic approach and was focused on alcohol.
-MET was very similar to that used in Project MATCH guided by five key principles with a few modifications (3)
-Nondirective Reflective Listening (NRDL) was used in deliberate contrast to MET and consisted of nonstrategic reflective listening within a therapeutic venue in which subjects were invited to talk about anything they wanted, not necessarily issues related to drinking. Content was intentionally left for subjects to determine

Treatment Outcome Measures:
1. Unequivocal heavy drinking (drinking 10 or more standard drinks six or more times in the 6-month follow-up period)
2. Measure of general functioning (measured using the GAS)

-There was an increase in general functioning of the whole sample, from 65.0 to 69.2 (however, the mean GAS score was still in the "mild" range indicating some difficulty in several areas of functioning).
-Four sessions of MET are superior to feedback and follow-up with no additional counseling, and four sessions of nondirective reflective listening, in reducing drinking in patients with mild to moderate alcohol dependence.

service

Limitations:
-The outcome measures used (GAS) may not have been appropriate

19	Slesnick, Erdem, Barlle-Haring, & Brigham (2013) Aim: Examine the efficacy of 3 theoretically distinct interventions among substance-abusing runaway adolescents and to explore individual differences in trajectories of	Study Design: RCT -3 different treatment modalities Population: -N= 179 adolescents between the ages of 12 and 17 -94 females (52.5%); 85 males (47.5%) -Majority African American (n=118, 65.9%) -All met DSM-IV-TR diagnostic criteria for drug or alcohol abuse or dependence Setting:	Interventions: -Community Reinforcement Approach (n=57), Average number of therapy sessions in this group was 5.3 -MI/MET (n=61) Focused on eliciting and reinforcing "change talk" and increasing motivation to change substance use; average number of MI procedures used during a session was 9.84 out of 10 Average number of therapy	Key Findings: -Statistically significant improvement in frequency of substance use among runaways in all 3 treatment conditions with a slight increase at post-treatment -Within the group of "decreasing substance use," those in the MI condition showed a quicker decline in their substance use but a faster relapse compared to those in the EBFT group	Strengths: -Used reliable outcome measures for this population -Used a latent trajectory analysis to analyze the change patterns in the sample (otherwise the treatment conditions would have looked the same) -Randomized participants to treatment condition -Good treatment fidelity Limitations: -No use of a TAU condition	Notes: -Researchers used the terms MI and MET interchangeably. The description of the intervention was consistent with MET though -Most RCTs of substance abuse treatment include treatment-seeking samples; parents usually initiate treatment for adolescents and adolescent motivation for change is typically low -These findings offer preliminary support for these

	change	-Recruited from a runaway shelter in a Midwestern city that provided short-term (usually 3 days) crisis shelter and services for minor adolescents -All therapy sessions were completed in the participants' homes with primary caregiver -Participants were paid with $40 gift card and the caregivers were given $25 cash following each follow-up assessment Randomly assigned to the Community Reinforcement Approach, MI, or Ecologically-based Family Therapy	sessions attended in this group was 1.6 -Ecologically-based Family Therapy (EBFT) (n=61); delivered in family therapy format Average number of therapy sessions attended in this group was 6.8 Measures (substance use): 1. Form 90 Substance Use Interview (excellent test-retest reliability with runaway adolescents; kappas .74-.95) 2. Urine screens Substance abuse was measured at baseline, 3,6,9,12,18, and 24 months Treatment Fidelity Measure: -Used standard treatment manuals and protocols; MI codes included 10 procedures CRA codes included 9 procedures EBFT included 10 procedures Data Analysis: -Hierarchal linear modeling		-Sample size relatively small -Used convenience sample (reduces generalizability) -On average, participants completed less than 50% of the available sessions. However, the retention rates were considered to be reasonable in comparison to other trials that seek to engage non-treatment-seeking, residentially unstable, substance-abusing populations -The small sample size limited the ability to perform analyses of potential therapist effects and the relationship between treatment adherence, therapist competence, and treatment outcomes	3 treatment options for use by service providers who seek to intervene in the lives of substance-abusing runaway adolescents Culture/Context: -Majority of participants were African American -Runaway adolescents
20	Villanueva, Tonigan, & Miller (2007) Aim: -To investigate Native American treatment responses within a large multi-site randomized clinical trial that compared three 12-week psychosocial treatments (Project	Study Design: Empirical - *a priori* hypothesis was that the Native Americans in MET would fare better than those assigned to CBT or TSF Sample: 25 Native Americans in Project MATCH Method: Project MATCH participants were recruited at 5 outpatient treatment centers (N=952) and 6 aftercare treatment centers	Interventions: -Measures: 1. The Form 90 interview (Miller, 1996) was administered at each assessment point to quantify the frequency and intensity of drinking (demonstrated reliability in assessing both alcohol and other drug use in clinical populations) -2 measures of drinking were used: percent days abstinent (PDA), and average drinks per drinking day (DDD)	Key Findings: -Native Americans assigned to MET reported significantly less drinking intensity relative to those assigned to CBT or TSF, with the highest proportion of abstinent days and lowest drinking intensity at both proximal and distal follow-ups -The outcome difference emerged on the drinking intensity measure (drinks per drinking day, DDD), rather than on the abstinence variable (percent days abstinent, PDA) -Native Americans were no less	Strengths: -To date, largest randomized trial of treatments for alcohol dependence in Native Americans so the observed differences are notable -Use of reliable outcome measures (Form 90) for assessing alcohol use Limitations: -Small sample size; low power to detect between-treatment differences-less confident where findings suggest no	Notes: Culture/Context: -American Indians suffer disproportionately high rates of alcohol use disorders as well as correspondingly high rates of alcohol based mortality -Little research has been devoted to this population -No substance abuse treatment with well-documented efficacy for American Indians -Current interventions have at

MATCH Research Group, 1997a, 1997b, 1998a, 1998b). -Investigate possible differential treatment response among Native Americans in Project MATCH	(N=774). Clients were interviewed at intake and treatment termination (12 weeks), and subsequently at 3,6,9, and 12 months after treatment. -25 Native American clients (1.4 % of total population) were randomized in the Project MATCH study, of which 23 (92%) were interviewed at all 6 assessment points. The 25 Native American participants were evenly distributed across 3 treatment groups: 8 in MET, 9 in CBT, and 8 in TSF. -4 ANCOVA's were computed to investigate possible differential treatment response	-To compare the Native American sample with the larger MATCH sample, examined ten baseline measures of motivation for change, severity of alcohol problems, and dependence using the ADS and the number of days of AA attendance in the prior 90 days (obtained from Form 90).	engaged in TSF or CBT treatment. Obvious mechanisms of change were not supported: No between-treatment differences were found for therapeutic alliance, therapy sessions attended, or overall satisfaction with treatment. In sum, they found no evidence that Native American clients differentially rejected either a TSF or CBT approach, they simply yielded less favorable results when compared with MET	significant differences -Findings require replication	best minimal impact -One of the nation's clearest unaddressed health disparities -Findings suggest a differentially better response to MET than to TSF or to CBT among Native Americans with alcohol dependence -Dearth of clinical trials with Native Americans -Hypotheses from one of the author's participation in Native American Church ceremonies, sweat lodges, conversations with medicine people, and direct clinical work with American Indians. -These cultural experiences suggested that the process by which Native religious leaders communicate and intervene resembles the client-centered style of MI much more than the directive style with CBT or TSF -As with other indigenous groups, Native Americans tend to abstain more frequently relative to the majority population -Future research involving quantitative or qualitative methodology with Native Americans should examine what factors, if any, explain treatment engagement. -As an evidence-based treatment MET seems one sensible component in developing effective interventions for an under-studies and underserved population
21 Willerick (2012) Aim: Assess the	Study Design: Quantitative Empirical Uncontrolled effectiveness study	Interventions: Group TX involved 8 sessions	Key Findings: -Participants did not report a significant decrease in their	Strengths: Limitations:	Notes: -Discusses implications for the practice of MET in the

(Continued from previous row)

Aim	Study Design / Participants	Interventions / Measures	Key Findings	Strengths / Limitations	Notes
effectiveness of MET applied in a group setting in a community substance abuse treatment agency	-Archival Study (Non-experimental) Pre-post within group design -Dissertation- Participants: N= 82 individuals -70.7% males (n=58) -29.3% females (n=24) -Ages 18-58; Mean age=31 -61 Caucasians (74.4%); 8 African Americans (9.8%); 1 Asian/Pacific Islander (1.2%); 1 Hispanic (1.2%); 2 other (2.4%) -n=18 Christian; 29 none or other religious preference -n=57 single, separated or divorced, 8 married; 7 cohabitating -n=87.8% heterosexual; 3.6% homosexual; 6.1% bisexual; 2.4% not listed -9.8% self-referred, the remained were referred from probation/parole officer, lawyer, judge, or other Setting: University Community substance abuse clinic (Western Michigan University)	(90 min ea.) that focused on the following topics: lifestyles, stages of change, ambivalence surrounding change, developing discrepancy, pros and cons of changing, values, self-efficacy, and planning for change Measures: -Self report measures-10-item questionnaire 1. Frequency of use over treatment 2. Magnitude of use over treatment 3. Readiness to change over treatment	substance use during treatment, but the results approached a significant trend suggestive of decreased use -No statistically significant changes in participants' self-reported readiness to change or in their self-efficacy were observed -A statistically significant increase in in change oriented talk was observed-increase in statements indicating a desire and intention to decrease substance use -Overall, mixed results -Change in the frequency and magnitude of substance use over the course of treatment did not reach statistical significance but the reported decrease in both frequency and magnitude approached a trend level	-Lack of experimental control over treatment presentation, independent variables, and dependent variables -No follow-up information to assess for short-and long term effectiveness of intervention -Lack of statistically significant change in use over course of treatment -Possible floor effect	community -Discusses how findings fit with the theorized mechanisms of action

#	Citation / Aim	Study Design / Sample	Interventions	Key Findings	Strengths	Notes
22	Winhusen et al. (2008) Aim: Evaluate the efficacy of a three-session MET intervention for pregnant substance users as compared with treatment as usual in increasing treatment utilization and decreasing substance use during the first	Study Design: Randomized Controlled Trial (RCT) Sample: - N= 200 pregnant women from 4 outpatient treatment sites -Eligibility: -At least 18 years old -Pregnant (confirmed by pregnancy test) -Not planning to terminate pregnancy -Needing substance abuse treatment (via CTP's screening	Interventions: (1) MET-PS: Brief motivational techniques described by Miller & Rollnick (1991), modified for pregnant substance users -3 sessions- first session 1.5-2 hours and two other sessions 1 hour -Participants in this condition were encouraged to participate in the other treatment services typically offered at the CTP -Clinicians randomly assigned to MET-PS completed 20 hours of training with MET	Key Findings: Key Findings: -Revealed no evidence that MET-PS was more effective than TAU in increasing treatment utilization or decreasing substance use in the study sample as a whole (this finding is consistent with one study and inconsistent with another) -There is a growing literature to suggest that the benefits of MET for primary drug abusers in	Strengths: -Use of a randomized controlled study design (gold standard for clinical trials) -Included an unusually large number of randomized participants for the pregnant substance-using population and is the largest RTX with this population to date -Study was conducted in the real-world settings of substance abuse CTPs, in which the clinic patients were the study participants and the clinic staff members were the	Notes: -Results suggest that MET-PS was not more effective than TAU in increasing treatment utilization or decreasing substance use in the study sample as a whole -There was some evidence that the effect of MET-PS did vary between sites, but given the relatively small sample sizes within sites and the overall small number of sites, it is difficult to speculate as to the importance of these findings

month of treatment

procedure)
-Stable living arrangement

-Excluded:
-If they required residential or inpatient treatments (other than detox)
-More than 32 weeks pregnant
-Planned to relocate from the area within 4 months of signing consent
-Had pending legal charges that might lead to incarceration
-Were significant suicide or homicide risks

expert and conducted a training case which was supervised and evaluated to rate clinician adherence and competence
-Clinician adherence and competence were monitored throughout

(2) TAU: Treatment as usual at the participating CTP with the constraint that they receive at least 3 individual sessions with a clinician, including the intake session
-3 sessions- first session 1.3-2 hour intake, other 2 sessions 1 hour
-All study participants were offered the other services typically provided by the CTP
Sessions were audiotaped to allow for evaluation of the discriminability between TAU and MET-PS sessions

Outcome Measures:
-Primary Outcomes:
1. Treatment Utilization-
(based on clinic records of TX attendance)
a. Ratio of the number of outpatient TX hours attended to the number of hours scheduled
b. The number of weeks in which at least one TX session was attended
c. The number of weeks until TX dropout (failure to attend any TX provided by the CTP for 3 consecutive weeks while still pregnant)

-Secondary Outcomes:
Measures of substance use
1. Substance Use (Substance Use Calendar) using the TLFB procedure
2. Motivation to change-URICA

substance abuse treatment might be more inconsistently observed compared with the benefits of MET for primary alcohol abusers

clinicians; thus the results of this trial should be generalizable to other CTPs
-The check on treatment discriminability suggests that the clinic staff randomized to MET-PS were able to implement MET-PS to the degree that it was readily and significantly discriminable from TAU

Limitations:
-The MET-PS and TAU groups were not balanced on several potentially important baseline characteristics; attempted to correct for the imbalances statistically but they may have impacted the results in a manner that could not be accounted for statistically
-Despite efforts to have participants receive their first session of MET-PS/TAU as soon as possible, only 85.5% of participants received at least one MET-PS or TAU session

-There was some indication that MET-PS might have been more effective than TAU in decreasing self-reported use of alcohol and illicit drugs in minority, compared with non-minority participants; this finding would need to be replicated in order to establish its importance
Culture/Context:
-Evaluation of the impact of minority status on outcome revealed that minority participants were less likely to receive an initial MET-PS/TAU session and attended fewer weeks of treatment during the initial month of treatment as compared with non-minorities.
-This finding suggests that minority pregnant substance users might be particularly susceptible to being lost early in treatment
-Consistent with other findings: Trial of cocaine-addicted women-African American participants were more likely to drop out after the intake visit compared to Caucasians & Retrospective chart review of women in treatment found that African American women were more likely to drop out of treatment
-Their minority analysis also revealed a significant Minority X Treatment interaction effect for self-report or drug/alcohol use, with minority participants in MET-PS reporting a greater decrease in use compared with minority participants in the TAU group; this is consistent with the results of a meta-analysis of MI studies,

			3. Qualitative urine toxicology results			which found larger effect sizes for MI in ethnic minority populations
23	Witkiewitz, Hartzler, & Donovan (2010) Aim: Re-examine the motivation-matching hypothesis from Project MATCH	Study Design: Secondary Analysis of data from RCT (Project MATCH) -Used growth mixture modeling (analytical technique that models variation in individual drinking patterns) -Measured % drinking days -Assessed from 1 month to 12 months following treatment Project MATCH- n=1,726 clients (952 outpatient; 774 aftercare) -Criterion variable= percentage daily drinking days (PDD) in all months following treatment, derived from the Form 90 instrument -Motivation for change measured with the URICA	Interventions: N/A Outcome Measures: 1. Drinking Frequency- Form 90 (PDD & PDA) 2. Motivation for Change- URICA	Key Findings: -The majority of individuals with lower baseline motivation had better outcomes if assigned to MET compared to those assigned to CBT -In the aftercare sample there was a moderating effect of gender and alcohol dependence severity, whereby males with lower baseline motivation and greater alcohol dependence drank more frequently if assigned to MET compared to those assigned to CBT	Strengths: -Results of the study have several direct treatment implications Limitations: -Unable to examine specific mechanisms through which the motivation-matching effect may work -End of treatment URICA scores and baseline URICA scores were not measuring the same construct (because responses shifted over time) -Relatively small effect sizes, even for those effects that were statistically significant	Notes: -Project MATCH has been criticized widely for failing to find support for the large majority of the matching hypotheses -Results lend partial support for the motivation-matching hypothesis -Demonstrated the importance of moderating influences on treatment matching effectiveness Culture/Context: -Culture, race, or ethnicity were not considerations in this analysis -Assessed for/examined gender differences

Total: 23						
Empirical: 20				Theoretical/Review: 3		
Experimental: 11			Non-Experimental: 9		Theoretical: 1	Reviews: 2
RCT: 11	Quasi: 0	Pre/Single: 0	Corr: 2	Arch:1	Retro:1	SA: 5

Table A2

Solution Focused Brief Therapy

	Cite & main purpose/aim	Study design & sample	Interventions	Key findings	Strengths & limitations	Additional notes/Cultural & contextual considerations
1	Beyebach (2014) Aim: -Review results from language-oriented studies conducted within a solution-focused family therapy practice and training unit. -The aims of the research studies were to establish a basic quality control of the services provided at the Brief Therapy Center of the Pontifical University of Salamanca Spain and evaluate the effectiveness of SFBT in this context. -How does therapeutic interaction contribute to continuation in therapy and to therapeutic outcome? -Which solution-focused techniques are more useful and under what circumstances? -What are the best ways of implementing them? -How can therapists use language in a more intentional way?	Design: Review of Outcome Studies (2) (Non-experimental; Descriptive) -Analyzed data from first sessions, last sessions, and at follow-up (*N*=83 and *N*=74); -Participants in studies were low-and-middle-income White Spaniards; -Complaints from anxiety and depression, couple conflict, problems with children or adolescents, eating problems, or drug abuse, among others. -Therapeutic outcome was assessed at termination by having independent judges review the language of the clients in videotapes of first and last sessions. -Outcome at follow-up was established by telephone interviews of clients -16 cases	Interventions: -Therapeutic alliance/create close and caring relationship in which client feels listened to and therapist is perceived as non-judgmental and to be working from a non-expert position -Working on goals/well-formed and clear goals -Reporting and discussing pre-treatment change -Positive blaming (helping clients take credit for their improvements by discussing how they achieved them); assumed to empower the clients and promotes internal locus of control -Amplifying improvements (get concrete details of positive changes that client reports) -Scaling questions to assess progress during therapy and assess and predict therapy outcomes -Deconstructing clients reports of no improvement (process where therapist tries to create doubts about report of no improvement and highlight any small change) -Use of solution-focused presuppositions ("what is better?" rather than "what has changed?")	Key Findings: -Overall findings from the studies offer empirical support for a variety of solution-focused practices and principles -Confirm that SFBT is usually brief and effective, but also that in some cases more sessions might be better -Client dropout can constitute a clinically relevant problem -Clients perceive and value the collaborative relationship that solution-focused therapists try to create -Collaborative relationship promotes continuation in therapy and compliance with homework tasks -Some indirect support for following the client's lead (which is typical of solution-focused therapists) -Evidence that several specific solution-focused techniques have a positive impact on therapeutic process including: -- Negotiating goals, discussing pre-treatment changes, and using scaling questions, getting specific details in therapeutic conversations, ensuring clients get credit for their improvements -Findings support the important role of listening carefully to the clients and trying to adjust their position -Client factors like internal locus of control have weight	Strengths: -The studies are a heterogeneous group of naturalistic studies that combine quantitative with qualitative, published with unpublished, process-outcome with outcome-only studies. -Therapy was conducted both by experienced therapists and by trainees, with clients that varied widely in their demographic and clinical features Limitations: -Most studies were conducted in the same setting, so the extent to which the results can be generalized beyond the specific characteristics of Spanish and university-based samples is an open empirical issue. -Results show a remarkable convergence but have not been replicated yet -The specific number of process studies looked at was unclear and it jumps around from study to study without clear specifications of external information versus results from studies conducted at the center.	Notes: -Does not directly address substance abuse; more SFBT in general -Common factors -Therapeutic alliance -Co-construction of goals -Pre-treatment change is a central tenet of SFBT -Language of questions-solution-focused presuppositions Culture/Context: -Salamanca Brief Therapy research team based out of Spain -No discussion about culture -Participants in studies were all White Spaniards with low-and-middle incomes -University-based treatment center

				and influence on therapeutic outcome, have predictive value and can be influenced		
2	De Shazer & Isebaert (2003)

Aim: Evaluate a SFBT-based program for problem drinking in Bruges, Belgium (The Bruges Model)
-Present outcome data | Design:
4-year Follow-up study

-Telephone Interviews conducted by psychology graduate students at local university; no connection with the hospital programs
-When possible, interviews were also conducted with relatives of the former patients to corroborate the clients' self-reports.

Sample:
-*N*=118 inpatients and *N*=72 outpatients who had completed the program at St. John's Hospital four years prior
-87 male; 44 female with ages ranging from 19 to 74 (av. age= 46.2) | Interventions:
-*Modified* version of SFBT
-Patient and family decide which form of group treatment patient will join: AB (abstinence-oriented) or CD (controlled drinking-oriented).
-In both groups the main focus is on identifying exceptions.
-Each patient is asked to keep a daily log form about his/her cravings and what he/she will do instead of drinking
-Choice of goals is made by the clients and their families, usually in response to the miracle questions. | Key Findings:
-100 of the 118 (84%) reported either being abstinent or had succeeded in continuing to practice controlled drinking.
-18 (15%) reported that they had not reached their goal of abstinence or controlled drinking.
-Having a choice of goals and the ability to change goals made a difference in treatment success
-Important for therapist to accept and encourage the client's choice
-Race, class, sex, age, economic class, and type of problem had no impact on outcome
-High percentage of patients reported a successful outcome | Strengths:
-Findings are suggestive of an important new approach to the treatment of a very difficult problem

Limitations:
-Relied on client and family self-reports (via telephone interview) rather than standardized, objective, or physiologic measures of alcohol use; limits the reliability of the findings
-No comparison group
-No random assignment | Notes:
-Clients choose goals; abstinence not required
-Client choice leads to better outcomes
-"Bruges Model" in Belgium
-SFBT is not a problem-solving approach but a solution-constructing approach
-Alcohol abuse treatment programs have traditionally been plagued with high recidivism and low success rates

Culture/Context:
-No discussion of cultural or contextual factors |
| 3 | Gingerich & Peterson (2012)

Aim: Evaluate the evidence of the effectiveness of SFBT (in general, not specifically to SUD treatment). | Design: Systematic Qualitative Review of Controlled outcome studies

Sample: 43 studies; 2 studies contained substance abusing population (1 was a substance abuse prevention study) | N/A | Key Findings:
-Of the 43 studies reviewed, 32 **(74%) reported significant positive benefit from SFBT**, and an additional **10 (32%) reported positive trends**. Only one study showed no observable benefit from SFBT.
-Overall, evidence from the 43 studies suggests that SFBT consistently produces positive benefits to clients across fields of practice.
-Strong evidence base that SFBT is effective for wide variety of behavioral and psychological outcomes
-SFBT is briefer and less costly than alternative approaches | Strengths:
-Used explicit selection criteria to identify qualifying studies and systematically abstracted data from each study to provide a basis for critical review and analysis
-Findings provide a comprehensive and valid basis for evaluating the effectiveness of SFBT overall, and for the six fields of practice
-Included non-published studies, including dissertations to reduce publication bias

Limitations:
-The vote-counting approach used in the analysis classifies a study as "positive" regardless of the size or statistical significance of the results | Notes:
-Most recent review of outcome studies for SFBT; there were 5 previous
-The number and sophistication of SFBT studies has steadily increased over the past several decades
-May provide added incentive to funders and researchers to conduct larger and more rigorous studies in order to further add to our understanding of SFBT effectiveness and efficiency
-SFBT is practical and brief

Culture/Context:
-Culture is not specifically addressed by researchers but some individual studies included ethnically diverse |

4	Linton (2005) Aim: Address the use of solution-focused counseling as a viable treatment option for clients who experience problems with substance abuse and addiction. -Introduce MHCs to solution-focused counseling for use with unmotivated and resistant clients who have substance abuse issues	Study Design: Journal Article-Review Article Topic: Overview of traditional substance abuse treatment, discussion of the basic assumptions of solution-focused counseling and the differences between the two are delineated. Benefits of using solution-focused counseling with substance abuse issues are presented. A sample intervention is described. Population: -Unmotivated and resistant clients who have substance abuse issues	Interventions: N/A Discusses: -Scaling questions -Miracle Questions -Exception and Coping - Questions	Key Findings: - Overview of the traditional models of SA treatment (founded on the disease model of addiction (Stevens & Smith, 2001)-AA/NA -Overview of newer models of SUD treatment are informed by social learning and CBT. -Problems with these approaches -Overview of Solution-Focused counseling as an alternative approach -Advantages of using solution-focused counseling approach with SUDs -Difficulties in solution-focused applications to substance abuse	Strengths: -Provides a thorough conceptual review of SFBT for SUDs -Describes limitations of traditional approaches to substance abuse treatment Limitations: -No discussion of culture or contextual factors	Notes: -SFBT is flexible and "seeks parsimonious solutions that work" -Abstinence is not the only option- Client choice of TX goals -Collaborative &client-centered -Small changes create a ripple effect leading to larger changes -Questions used in SFBT orient clients toward success rather than keeping focus on deficits/problems -Rooted in post-modern/constructivist thought- no single and objective truth -Reality is a subjective construction based on person's interactions with the world and the meanings made from experiences -Makes no assumption about the true nature of problems/pattern of addiction -Disease model seeks to address client's' deficits and foster coping skills to deal with addiction; SFBT focuses on strengths and competencies and is a good alternative to the disease model -SFBT enhances motivation with unmotivated and TX-resistant clients -Importance of language Culture/Context: -Mentions briefly in the conclusion that future research should focus on the multicultural aspect of applying SFC to SA; no other mention of culture or context throughout article

| 5 | Macdonald (2005)

Aim: Report outcomes from SFBT outpatient clinic in adult mental health/outcomes from follow-up procedures | Design: Uncontrolled naturalistic study of brief therapy in an NHS Mental Health Trust.

Sample:
-75 clients were referred to the clinic; of those, 53 were seen at least once; 41 were traced for follow-up information one year after leaving therapy.
-34 individuals, 6 couples, and 1 family were seen. Problems were of less than one year's duration in 15 cases, between one and three years' duration in 13 cases and over three years' in 13 cases
-Presenting problems were described in the attenders' own words
-Mean age of 'good outcome' group: 43.45 years; 12 men and 19 women
-Mean age of 'others' group: 32.7 years; 2 men and 8 women | Interventions:
1. Problem identification; goals defined in practical and recognizable ways
2. Pre-session changes assessed
3. Scaling questions; miracle question;
4. Feedback and compliments; advice to 'do more of the same', and 'it is time to try something different'

Team:
-Two to four professionals on the team on any given day: a consultant psychiatrist, two community psychiatric nurses with systemic training and a community psychiatric nurse who specializes in solution-focused counseling. Two team members are female and two are male; all are Caucasian.

-Mean number of sessions per case: 5.02 overall (5.36 in 'good outcome group; 4 in 'others group)

Outcome Measures:
-'Good outcome:' either the attenders themselves reported that they had achieved their goals or that the general practitioner reported that goals were achieved if no information from attenders was available. | Key Findings:
-A 'good outcome' was found in 31 cases (76%), while 10 clients (24%) reported no improvement. General practitioners allocated 27 clients to the 'good outcome' group and 7 to the 'others' group (no significant difference from outcomes reported by clients: chi-squared 0.010, *df* 1)

-Good outcome was reported in 12 of the 16 clients with anxiety or tension' 7 out of 7 who wanted 'something new in their lives', 6 out of 8 with relationship difficulties, 3 out of 5 with depressive complaints and the 2 with problems involving violence.

-Problem type was not significantly correlated with outcome

-One female heroin user, one female with an eating disorder, and one male with a skin disorder were also seen. The binge eating improved but the other problems did not.

-No significant difference in outcomes between the different socioeconomic classes. | Strengths:
-The form of SFBT as described by De Shazer (1994) and DeJong & Berg (2002) was followed closely
-Study confirms previous reports in terms of overall benefit of SFBT (two other studies); 76% of clients report the achievement of some or all of their goals. This echoes similar results from other countries.
-Study shows that presenting problem not linked to outcome, which is consistent with other studies previously conducted
-Treatment fidelity: to ensure treatment fidelity, they observed one another's practice using a one-way screen and an "earbug" for the therapists. Team members also kept in contact with other practitioners in the association (2 of which are trainers on the accredited module in SFBT).
-Pooled information from three studies and all three showed that all socioeconomic groups have an equal chance of benefitting from SFBT (this is important because findings show that clients do better if they have more choice and more control about their therapy). This makes treatment available which will be effective for those from relatively deprived groups since they have less money and less resources/less choices. | Notes:
-SFBT provides clients with more choice and more control (which makes clients do better in treatment)
-Using client language and vocabulary builds therapeutic relationship
-Benefits of collaborative approach
-SFBT procedures easy for therapists to learn

Culture/Context:
-No Ethnic minorities were referred during the period under study |
| 6 | Matto, Corcoran, & Fassler (2003)

Aim: Provide an integration of art and solution-focused | Study Design:
-N/A-
Journal Article | Interventions:
N/A

Discusses:
Compatibility of art therapy with brief therapies like | Key Findings:

Both SFBT and art therapy facilitate collaboration and an emphasis on the client as the agent of change | Strengths:
Provides an integrated approach using art as a way to deliver an objective intervention for substance abuse
Drawing the problem helps to | Notes:
Contains some good descriptions of the processes involved in both SFBT and art therapy |

	therapies		SFBT because the process of creating images helps accelerate recall of memories It also helps in the externalizing process Creates an objective perspective and expands opportunities to find solutions Active engagement in the art activity fosters commitment to change Collaboration between client and art therapist	Empathic and collaborative relationship facilitates client engagement Applied to substance abuse treatment, the SF approach does not take a confrontational stance and clients are responsible for the change process Chooses empathic and understanding approach Frees the person from viewing the problem as fixed and unchangeable Art represent the self	externalize the problem Offers opportunities for a more focused practitioner-client relationship	Culture/Context: None mentioned
7	McCollum, Trepper, & Smock (2003) Aim: Review the literature on Motivational Interviewing and SFBT in a group format -Describe a format for SFGT (Solution Focused Group Therapy), and provide a case example of a SFGT session.	Design: Journal article-Literature review and example of a case study (Theoretical) Sample: Case study had 4 members (3 men, 1 woman) and 2 therapists were present in the therapy room and a team sat behind a two-way mirror.	Interventions: -Future oriented questions; miracle questions, scaling questions -"Change Talk" -Clients choose treatment goals -Use client language and direction	Key Findings: -SFGT has found clinical application in the substance abuse treatment field, and appears to make conceptual sense as an application of competency-based principles to treatment. While there are conceptual reasons to think that it can be useful in treating people with substance abuse problems, there is, as yet (2003), no empirical evidence that it is.	Strengths: -Provides conceptual and theoretical rationale for applying SFGT in substance abuse treatment field -Gives overview of philosophical similarities and implementation differences between MI and SFGT -Provides a case example of how to apply SFGT -Identifies change factors in SFT and MI and principles that underlie successful TX outcomes for substance abuse Limitations: -Discusses only a small body of research supporting effectiveness of SFBT -There is only preliminary support for the efficacy of SFBT	Notes: -MI is fundamentally a motivation enhancement and treatment initiation approach- change occurs naturally once person is motivated -SFGT takes motivation as a starting place and provides techniques to further support change (this makes it unique from MI). -SFGT provides interventions geared to a wider spectrum of change process than does MI. -MI relies on specific individual feedback -difficult to implement in group setting -SFGT more easily implemented in a group format -does not rely on individualized feedback, and instead uses each client's goals, exceptions and commonalities with other members for developing motivation and support for change. -SFBT is brief-good for substance abuse population; cost-effective -Using client's language very important Culture/Context:

-Addresses cost-effectiveness of group format
-Community drug treatment facilities typically deliver treatment in group format
-Group therapy may be particularly well-suited for those whose larger social contexts tolerates or encourages substance use
-No mention of cultural factors

| 8 | Nelle (2005)

Aim: To describe a solution focused addiction program and provide a case example of a client who chose controlled drinking | Design:
Journal Article-Review Article
Topic: solution-focused program for addiction

-Provides a case example:
-47-year-old female; self-referred; going through a separation; sleep difficulties; goal to reduce her drinking which had gotten out of hand | Interventions:
-N/A

-Program Description: applied in stationary, day-clinic and outpatient treatment; based on the solution-focused approach and defines addiction as a pathology of choice: the client is able to choose if she or he drinks alcohol or not only in an extremely restricted way.
-Addiction treatment aims for restoration of ability of choice.
-Therapists concentrate on supporting the client, to find out what goal is attractive for her or him and which solutions are useful
- Questions and interventions focused on what was helpful to cope with stressful situations without drinking more and how she would notice that things have become a little less difficult (miracle question)
-Identify resources
-Avoid putting pressure on client to set high goals and thus make failure more likely than a success. Therapist suggests smaller steps that | Key Findings:
-Abstinent at the end of treatment
-Follow-ups after 6 months and 12-months after end of treatment showed that she was still abstinent and confident to maintain her progress | Strengths:
-Provides a case example to demonstrate how the program can be helpful for those who would not join a traditional therapy

Limitations:
-No objective measures were used (only questionnaires)-limits reliability of findings
-TX specifics not discussed (# of sessions, length, etc.) | Notes:
-Controlled drinking/client choice of treatment goals very important
-Discusses the "Bruges Model" and the "Bremen Model," and the similarities between the two
-Person with abusive drinking habits does not suffer a total loss of control; always has the ability to choose
-In times of decreasing financial resources SFBT is becoming more attractive for insurances
-Small number of sessions (brief)

Culture/Context:
-No discussion of cultural or contextual factors |

client is confident to perform
-Set clear goals/exact plan for change
-Working with exceptions

9	Polk (1996) Aim: Evaluate the effectiveness of SFBT on problem-drinking behavior	Study Design: Pre-Experimental-Single subject AB design Sample: 36-year-old male with a 10-year history of problem drinking and poor work attendance -Baseline data were reconstructed from archival records and client historical reports	Interventions: -Client choice of TX goals -SF questioning -Exception Qs -Coping Qs	Key Findings: -At baseline the client had been abstinent one day per week; by the end of treatment he was abstinent 3 days per week. -Work attendance during baseline was 2 days per week but increased to 4-6 days per week during treatment	Strengths: -Reliable measures were used in the context of an AB design so can be fairly confident that the client's behavior in this study actually changed Limitations: -Poorly controlled -Don't know if changes were statistically or clinically significant -AB designs are open to many threats to internal validity so not possible to conclude that the SFBT intervention is what caused behavioral change -A more rigorous design and replications studies are needed to draw firm conclusions about the efficacy of SFBT.	Notes: Culture/Context: -Does not address culture or contextual factors
10	Smock, Trepper, Wetchler, McCollum, Ray, & Pierce (2008) Aim: Determine therapeutic effectiveness of solution-focused group therapy as compared to traditional problem-focused treatment for level 1 substance abusers -Co-morbid problems, like depression, were examined to determine if SFGT is also effective in minimizing coexisting conditions	Design: Experimental Pre-test/post-test Between Groups design Methodology: Empirical Study Quantitative Sample: N=38 Convenience sample Referral Source: -Most were referred for substance abuse treatment from local probation department with the remaining self-referred Setting: Urban Midwestern university-based community MFT clinic	Interventions: 1. SFGT Group (N=19): conducted by two co-therapists, both graduate students in the MA-MFT program. One of the co-therapists rotated into group each week, with each therapist being present for 2 consecutive weeks. Each group therapy session was 1.5 hour long with a 10 minute break for therapists to consult with therapy team (6 sessions total) SFBT Interventions used: Future-oriented questions, exception questions, scaling questions, miracle questions, provided feedback, assigned	Key Findings: -No significant differences found between groups on the BDI or OQ (ANOVA). -Within-group differences were found in only the SFGT group for both the BDI and the OQ; moderate effect sizes for both (BDI; $d= .64$; OQ; $d= .61$)- significantly lower after treatment (pre-to posttest changes) -Within-group differences: The control group showed change in scores (indicating benefit from treatment), but changes were not significant. -No significant differences found between groups on the SASSI subscales (indicating that the TX and control	Strengths: -Use of random assignment -Used standardized instruments; reliable and valid outcome measures -Overall good measurement reliability and appropriate statistics used (ANOVA to compare between group differences) -Efforts made to reduce chance of confounding variable- The Family Therapist Rating Scale (reliable measure) to control for therapist skill level -Controlled for therapist adherence to TX model (potential confounding variable) -Controlled for pretest differences using ANOVA -Overall, adequate internal validity (equivalent groups and control of extraneous variables)	Notes: -Depression and substance abuse tend to be comorbid so makes sense to measure mood before and after TX -Client choice of TX goals/client in charge of TX leads to successful outcomes -Benefits of group format -SFBT affordable and offers briefer and less intrusive interventions -SFBT has had success with mandated client -More quantitative research needs to be conducted testing the efficacy of SFBT with substance abusers -SFBT differs from MET in the amount of time spent talking about problem areas and the preferred future of the

Participant Characteristics:
-30 men, 8 women
-Ages 18-50 years old
-17 Caucasian, 11 African American, 8 Hispanic, 2 Native American
-Mean duration of reported sobriety 7-12 months

-Substances most commonly tried were alcohol, marijuana, cocaine, and nicotine

-Inclusion Criteria: Level 1 substance abusers (require outpatient treatment services no more than 9 hours per week)
-Also met the following requirements:
a) Stated they had a substance abuse problem
b) Did not require inpatient treatment
c) Agreed to all the guidelines in informed consent

Participants randomly assigned to one of two groups-SFGT or TAU

homework

2. Control Group/TX Comparison (N=19): Based on "The Primary Recovery Plan" program, which contains 14 modules; not all modules were utilized due to the 6-week time frame. Each group therapy session was 1.5 hour long. Sessions were led by two co-therapists, conducting therapy at all times (no rotation) and were graduate students

Outcome measures (4):
1. Beck Depression Inventory (BDI); Reliability= .73-.92 for measuring depression
2. Outcome Questionnaire (OQ-45.2); Reliability= .84 for measuring effectiveness of therapy
3. Substance Abuse Subtle Screening Inventory (SASSI-3)-To classify subjects as either having high or low probability of possessing a SUD; Reliability= .93 when assessing male and female drug users as possessing a substance dependence disorder
4. Questions evaluating social cost measures

-Therapists were assessed using the Family Therapist Rating Scale to measure therapist skill level (reliability= .77 for measuring therapist skill)

group faired similarly at the pre-and posttest on this measure).
-Relationship satisfaction in SFGT showed a positive trend but not statistically significant
-SFBT is an effective method of decreasing depression for level 1 substance abusers

Limitations:
-High attrition rate (67% of the participants completed entire study) and the participants who did not complete the study were not accounted for/described in the analysis
-Social costs questions were generated by the experimenter and their reliability and validity were not established
-Results are considered preliminary
-Small sample size
-No follow-up

clients
-SFBT focuses more on client's stated goals and how to achieve them rather than the problem of substance abuse
-Results of this study were similar to those in Project MATCH

Culture/Context:
-Reports demographic information
-AA is beneficial for some but is not likely to aid individuals who are nonreligious and/ or are members of minority classes
-Did not compare differences in groups with regard to gender, ethnicity or age

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11 Spilsbury (2012)

Aim: employ SFBT to alleviate depressive symptoms in an alcohol-dependent patient with

Design:
Single case AB design-Case Study
Pre-test-post-test
(Pre-Experimental)

Interventions:
- 3 sessions of individual SFBT spaced at monthly intervals
-Miracle question, exception questions, scaling questions

Key Findings:
-Maintained abstinence for the 3 months of treatment and had continued abstinence when contacted at 1-year follow-up of his

Strengths:
-Results suggest that treatment of alcohol dependence with depression can be combined in a brief intervention, even in the face of complicating factors such as

Notes:
-Client choice of TX goals
-Confronting clients with predetermined goals leads to resistance
-Difficult to treat client- co-

comorbid personality disorder	Sample: (*N*=1) 54-year-old male referred by his general practitioner for assessment for psychotherapy to supplement medication for depression and alcohol dependence -Presentation consistent with antisocial personality disorder -Abstinent from alcohol one week -Taking acamprosate medication and thiamine	Outcome Measures: -Depression Anxiety Stress Scale (DASS) -Maintenance of abstinence -Self-report of goal attainment and treatment satisfaction -Therapist's judgment regarding treatment progress	progress -Scores on DASS decreased from severe to normal on depression (21 to 8), moderate to normal on stress (20 to 14), and remained in normal range for anxiety (2 to 0). -Client successfully maintained medication compliance	antisocial personality disorder Limitations: -No reliability or validity measures to ensure changes were due to treatment rather than medication or other extraneous variables -No means to determine treatment fidelity -Only one objective measure was used to determine change (The DASS)	morbid depression, alcohol dependence and possible antisocial personality disorder - There was no discussion of the client's cultural or religious background or his ethnicity
12	West (2010) Aim: Examine the unique challenges associated with providing substance abuse treatment in rural settings with publicly funded clients (challenges faced by individual clinicians working in these settings). -Discuss solution focused strategies and techniques that have proven particularly well-suited for these settings.	Study Design: Journal/Review Article Sample of interest: -Publicly funded alcohol/other drug abuse clients in rural settings -Characteristics of the population: small cities in a county with a total population of 25,000 residents. The median income in the county is approximately $29,000 per year (~60% of the median income for Michigan residents) -Groups are highly diverse with regard to age, readiness for treatment, severity, and chronicity of the problem, legal history, and substance of choice (difficult factors for clinicians)	Interventions: SFGT -Some promising interventions: 1. Focus on wellness (look for what is right and how to use it; emphasize solutions; talk about the future) 2. Client feedback (session rating scales) 3. Focusing on "exception periods" or "periods of success"- focus on sobriety, as opposed to relapse is empowering for clients; focus on a time when the "problem" might be solved- this can instill hope and is accepting of the problem as the client sees it.	Key Findings: -Discusses financial constraints, transportation constraints, scarcity of community resources in small rural communities -Under difficult circumstances, an orientation that focuses heavily on client engagement, promotion of wellness, and pro-social behavior is seen as the most effective -Several solutions-focused techniques have been found useful, especially in groups where members are at varying stages of change.	Strengths -Addresses the challenges faced by clinicians working in community substance abuse treatment/managed care -Provides review of some promising S-F interventions for treatment in small rural communities Limitations -Cannot draw conclusions; just discussion	Notes: -These groups are typically short term and may be the only treatment or agency support available to the client. -Heavy focus on client engagement -Focusing on wellness emphasizes solutions -Many solution-focused strategies are compatible with the recovery model and MI -Client must choose the goals -Importance of therapeutic alliance -Funding constraints dictate that client treatment be of limited duration. This may not be limiting though because research suggests that brief interventions can be effective with clients (Miller & Willoughby, 1997). -Berg & Miller 1992- short-term treatment as effective as long term treatment -Provides guidelines for effective practice from the National Institute of Health (2000)~ 13 research based core principles of effective addiction treatment; used as a yard stick by which to gauge

effectiveness of treatment programs

Culture/Context:
-Publicly funded SUD clients in rural settings are characterized by considerable diversity with regard to demographics and member's readiness to change.
-Addresses diversity, funding constraints, transportation constraints and scarcity of community resources in small rural communities

Total: 12				
Empirical: 4			Theoretical/Review: 5	
Experimental: 3		Non-Experimental: 1	Theoretical:-	Review: 5
RCT: 1	Pre-Exper: 2	Program Evaluation: 1		

Table A3

Narrative Therapy

	Cite & main purpose/aim	Study design & sample	Interventions	Key findings	Strengths & limitations	Additional notes/Cultural & contextual considerations
1	Chan, Ngai, & Wong (2012) Aim: Discuss the potential of using photographs to externalize the problem in Narrative Therapy using a substance abuse case	Study Design: Clinical Case Study (Empirical) (Qualitative) -Provides a clinical account of a substance abuse case Sample: A case from a pilot study project on using photographs in narrative therapy and substance abuse treatment -*n*=1 - 38-year- old female born in Hong Kong who had recently overdosed on cough medication Setting: Hospital in Hong Kong	Interventions: -Used in case example: -Phototherapy (use photographs as a way to help clients record their feelings and keep distance from their experiences. ~ photographs used as "distancing" technique -6 sessions (45 min ea.) -Dialogues recorded and fully transcribed Data Analysis: -Used sequential analysis to analyze utterances; based on order of utterances instead of actual time in minutes	Key Findings: -The experiences of the protagonist in this photograph-supported narrative therapy (NT) treatment were in line with the intended process of NT -Observations revealed ways in which the use of photographs was related to externalizing -Suggest how photograph-supported NT approach can facilitate the rehabilitation of substance abuse clients -Photographs help clients recall positive memories -Photographs can counter frustrations and feelings of failure related to relapse by showing them a recorded incident when they had been successful/achieved goal -Photographs help protagonist to recall supportive resources	Strengths: -Clearly states aim of study and gives clear rationale of its usefulness -Discusses gaps in the literature -Discusses limitations of design and lack of generalizability -Minimizes the bias of their interpretations by performing a simplified inter-rater check Limitations: -This was a case extracted from a broader initiative involving other substance abusers from different backgrounds; single case cannot represent all types of drug abusers in the service project -An integrated analysis is required before they can reach a more solid conclusion -The clinical account involved a therapist and a photographer rather than just a therapist -Approach facilitated particular ways of using photographs and neglected some others -The authors were also the practitioners in the project and transcripts relied on subjective judgments -Further analysis with a broader range of methods will be necessary.	Notes: -Application of NT in addiction treatment is under-researched -Photographs facilitate scaffolding process -Relationship between NT and symbolic mediations is under-theorized and under-researched -Discusses levels of distancing tasks Culture/Context: -Pilot study project was conducted in Hong Kong -Using client's metaphors helped externalize problem
2	Clark (2014)	Design: Journal Article Review Article with case examples	Interventions: (1) Narrative Novel:	Key Findings: -There is a need to gain further	Strengths: -Developed 2 activities	Notes: -Narrative therapy is non-

	Aim	Sample	Interventions	Key Findings	Strengths/Limitations	Notes
	Aim: -Provide information about the process of implementing narrative therapeutic strategies with an outpatient substance abuse group using two consecutive narrative-focused interventions -Present the fundamental rationale, assumptions, and objectives -Discuss potential adaptations and limitations of the NT approach -Objectives: 1. Encourage clients to explore themes throughout their lives and recovery by having individuals equate experiences with aspects of a story that they have the potential to author 2. Focus the clients on aspects of the problem as an external force that needs to be eliminated through developing alternatives and exploring unique outcomes 3. Assist the clients in developing alternative narratives by allowing them to be the experts of their stories	Sample: Female substance addicts in various stages of recovery	provides the opportunity for individuals to rewrite their story of recovery and process the external power of the substance within recovery (2) Letter to Letting Go: allows for individuals to conceptualize the addiction as a relationship and the substance that can be removed from their lives *Both developed on the principles of narrative therapy and utilizes within the context of an outpatient substance abuse group -Goal of these interventions is to support individuals in their recovery	evidence of narrative interventions in substance abuse therapy -The narrative interventions used -NT provides an opportunity for individuals to rewrite their stories in a way that removes guilt and self-blame -NT has been found to be effective in numerous studies -Limitations of NT: Difficulty measuring the approach's success -Clients need to be able to articulate their stories -NT approach is rooted in philosophical underpinnings so measurement of its effectiveness is mostly subjective	based on the principles of NT which provided individuals an opportunity to re-write their story of recovery and process the external power of the substance within their recovery -Provides rationale for using NT with substance abusing populations and rationale for conducting more research in this particular area -Identifies why NT may support individuals in recovery-strong impact of individual stories on self-identification Limitations: -Subjective nature of findings-can't draw conclusions	confrontational & collaborative -Clients are experts -Problems are distinct from person -Like relationships with others, people have relationships with their problems -Change depends on changing the relationship with the problem -Gaining control of the change process so can re-author aspects of their lives -Foundation of NT= investigation of the journey created by these stories -Integration of various approaches is necessary for improving substance abuse treatment Culture/Context: -NT necessitates the ability to articulate stories-those with limited verbal or cognitive abilities may not benefit from this approach
3	Combs & Freedman (2012) Aim: Review current	Study Design: N/A Journal Article	Interventions: N/A	Key Findings: N/A	Strengths N/A Limitations: N/A	Notes: -Authors illustrate the major theoretical constructs of NT, including the Narrative Metaphor,

	practice in narrative therapy	-Review of current practice with focus on how it is attractive and useful for therapists who wish to work for social justice				Foucault's notion of "modern power," and the emphasis on problems as separate from people -Describe specific practices: narrative questioning, externalizing conversations, utilizing "absent but implicit," the development and thickening of preferred stories, the documentation of preferred stories, outsider witness practice, and practices for connecting people around shared purposes.
4	Gardner & Poole (2009) Aim(s): -Address gaps in the literature pertaining to narrative therapy with older adults with addiction -Explore the usefulness of narrative therapy for groups of older adults with addictions and mental health issues -Investigate unique aspects of narrative therapy with groups - Examine how narrative therapy may be particularly well-suited to older adults	Study Design: Ethnographic study; adapted ethnographic design consisting of participant observation, extensive field notes, and in-depth interviewing methods (Empirical) Sample: -Study Group Participants were selected using purposeful sampling -The study criteria were (a) willingness and ability to attend an 8-week narrative therapy group; (b) older than 55; and (c) seeking assistance for addictions (or substance misuse) and mental health issues. Participants were recruited through therapist outreach, word of mouth, and advertising in local free newspapers. -The final group of participants consisted of **12** older adults ranging in age from 55 to 70 years old -7 men and 5 women -Included diversity of Toronto's cultural groups and included immigrants from Africa, Germany, Spain, France, and Scotland	Interventions: N/A Data Collection: -Two primary methods of data collection- (1) Participant observation; (2) Semi-structured interviews which were 1 hour and took place after the therapy sessions were completed Data Analysis: -Conducted in two stages using a constructivist grounded theory approach which involves simultaneous data collection and analysis with each informing and focusing the other throughout the research process	Key Findings: -Findings from this study add to the body of literature that supports the use of narrative therapy and provides new insights into the use of this therapy with older adults and with people with addictions -Narrative therapy is a helpful therapeutic approach for older people with addictions -All participants described their experience as positive -Findings suggest that narrative therapy may be particularly well suited for this age group	Strengths: -Demonstrates the promise and benefits of narrative therapy for older adults and for applied gerontology -Listening to and co-creating stories in narrative therapy provided important insights into aging processes and experiences while simultaneously providing a space for older people with addictions to begin to change their worlds -Supports claims that narrative therapy provides extensive opportunities for remembering and re-experiencing of past knowledge's and relationships Limitations: -Did not include a quantifiable element to the research such as a pretest and posttest or a questionnaire -May have needed to include additional tenets of narrative therapy (examples given) -Small sample size	Notes: -Further study is warranted -Findings from this project not only add to the formal research on narrative therapy but also are the first to speak to the practice of narrative therapy with older adults with addictions -Storytelling improves mental health; people are social beings and have a need to tell their stories Culture/Context: -Took place in Toronto, Canada -Narrative therapy fosters an awareness of the ways in which dominant discourses weaken personal agency and undermine appreciation of one's authoritativeness -Loss of control and loss of autonomy are significant factors for older people -Developing one's narrative may be a way to resist disempowering practices in addictions and mental health (i.e., "traditional" assessments that limit and label individuals) -May be a way to shift power from therapist to participant -The process of narrative therapy allows for and encourages expressions of resistance-participants own and express

					alternative stories -A goal of narrative therapy is to help people who are silenced by poverty or disability to feel "entitled" to take up space in the world -Many Western discourses oppress older people and do not provide space for them in addictions and mental health systems -Narrative therapy provides a form of resistance of hegemonic practices in psychotherapy - By focusing on assets and alternatives, resistance becomes power for the "powerless" in society
5	Garte-Wolf (2011) Aim: Explore narrative therapy group work (NTGW) as a useful tool for HIV-positive individuals who are recovering from addiction	Study Design: N/A -Journal Article with case example to demonstrate key points; program description Population of focus: -Adult chemically dependent clients who meet the following criteria: 1. Have experienced a recent relapse 2. Are HIV positive 3. Are currently stable psychiatrically 4. Able to attend regularly scheduled 1-hour individual therapy sessions and five groups per day Setting: -Sub-site of a large nonprofit Boston-based agency offering case management, housing supportive services, and direct services for individuals and families struggling with substance use issues -Inpatient facility for adult chemically dependent clients	Interventions: N/A Characteristics of the program: -28-day treatment cycle -6-month or 2-year transitional housing program -HIV health service advocacy and consultation -30 to 90-day hospital-based inpatient "recovering community" (where this particular group took place) -Employs evidence-based therapeutic techniques including the harm-reduction paradigm, MI, REBT, and CBT	Key Findings: -Explores the dynamics of the group and the complications of working with HIV-positive substance users -Discusses the usefulness of NTGW in helping this population -Provides a case example including descriptions of agency setting, client population, and group processes	Strengths: N/A Limitations: N/A	Notes: -Complex issues that make it difficult to work with HIV-substance users include difficulties in forming trust, erratic group attendance, unexpected termination, ambivalence toward TX methods, inability to expose vulnerabilities, and different expectations of group -Need to have trust in order for the multiple narratives unique to clients' experiences to surface that could serve a therapeutic service -Group formation is difficult and problematic in this population because of the rate at which clients come and go from groups in the programs. -Reasons for premature termination are relapse, drug dealing, heath conditions beyond those the agency can treat, health emergencies, and emergence of communicable diseases -Clients leaving the group can disrupt the ethos of the group so important to discuss their absence with the group. -Ambivalence toward TX and

					recovery -Emotional toll suffered by people who suffer from HIV/AIDS; depression is5 prevalent among this population-must confront mortality so support groups need to deal with denial and depression but it is difficult for clients -NT can help people separate themselves from their stories and better grasp the moments in their lives when they were not overwhelmed by their problems -Re-authoring is especially useful in a group setting and can give people an opportunity to share their stories, begin to regrow the self, and be in a safe space free of stigmatization -NT complements other cognitive, behavioral, and family systems techniques Culture/Context: -Participants in the program of from varying ethnic and cultural backgrounds and represent the diverse makeup of Boston -The normative composition includes heterosexual, homosexual, and bisexual females and males who identify themselves as African/Black, Puerto Rican, White, or Cape Verdean	
6	Lyness (2002) Aim: Summarize the literature on alcohol problems in Alaska Natives, summarize risk and resiliency factors focusing on Native and Western healing practices	Study Design: Journal Article Review Article Sample of interest: Alaska Natives with alcohol-related problems	Interventions: N/A	Key Findings: Discussion points: -Alcohol related problems particularly high among Alaska Natives -Risk factors may be due to de-culturation and cultural oppression; rapid culture change; poverty; spiritual struggles resulting from destruction of Native way of	Strengths: -Provides a way to adapt Western treatment methods to fit the specific needs of Native Alaskans -Provides rationale for altering treatment -Describes the key values of Native Alaskan culture and provides useful suggestions for how to utilize narrative therapy as	Notes: -Process of narrative is to deconstruct problem stories and uncover or re-construct non-problem stories -Assumptions of the NT model -Social constructionism- lives and relationships are shaped by knowledge and stories of the community; co-produced Culture/Context:

life
-The use of storytelling is a
culturally sound practice;
stories are an inherent part of
Native Alaskan culture and can
be used as a way to understand
the effects of change in Native
Alaska culture
-Approaches suggested for
working with Alaska Natives
on alcohol related problems and
mental health care delivery
-Barriers to delivery of service
-General suggestions to
overcome barriers
-Applications of Western
treatment to Alaska Natives

a culturally congruent and
culturally sensitive
approach to treating
alcohol problems
-Suggests that therapists
try and incorporate native
languages, as well as
culture, into treatment as
much as possible

Limitations:
-Theoretical in nature-
cannot draw any firm
conclusions, only
implications

-Addresses the importance of
cultural considerations in treating
alcohol problems
-Narrative therapists have been
particularly interested in
deconstructing problematic stories
of the dominant culture
-NT may be particularly
appropriate/relevant to Alaska
Natives in their struggles with the
problems of the dominant culture
and loss of their non-problem
stories
-Subjugated groups are able to re-
author their stories according to
their preferred narrative
-NT helps explore cultural stories
that are not the preferred stories of
the individual; cultural stories
have been imposed on Natives
and alcohol may help strengthen
these dominant and subjugating
stories
-Idea of balance important in
Native culture; Alcohol abuse
creates imbalance

| 7 | Morgan, Brosi, & Brosi (2011)

Aim:
1. Identify the prevalence of substance abuse among those 65 and older
2. Document and emphasize the unique challenges of addressing this issue among those 65 and older
3. Provide an application of the narrative approach to working with older persons presenting with substance abuse | Study Design:
N/A
Review Article

Sample: Older Adults (65+) with substance abuse issues

-Focus on the intersection of substance abuse issues and the dominant narrative | Interventions:
N/A

-Describes narrative interventions in lit review

1. Externalizing
2. Unique Outcomes
3. Re-Authoring
4. Reinforcing the new story

Data Collection: | Key Findings:
Discussion points:
-Many older adults suffer with substance abuse
-There are compounding effects of ageism and substance abuse
-Discuss how older persons internalize messages about the pervasive stereotypes about later life
-The population of older adults is growing rapidly and we do not have the adequate knowledge to treat/work with this population
-Have limited information about the unique challenges they face or the specific interventions that are effective with this population
-1 in 5 people with substance abuse are older adults
-Physical and cognitive | Strengths:
-Clear statement of the aims of the research and the primary goals
-Provided rationale for why the research is important
-Discusses risk factors and barrier to treatment
-Provides application of narrative therapy for older adults

Limitations:
-Theoretical; conclusions cannot be draw, only implications | Notes:
-Discusses social breakdown syndrome (lens through which to view substance abuse in older adults)
-Internalization of negative messages
-Importance of externalization (substance abuse is separate from client, not a part of him/her)
Culture/Context:
-Discusses the dominant cultural narrative about aging (aging=decline and diminished capacity)
-Discusses major life changes that increase risk factors for this population
-Discusses oppression associated with ageism, sexism, racism and how to help the dominate cultural narrative from defining the individual |

#		Study Design	Interventions	Key Findings	Strengths / Limitations	Notes
				changes that occur later in life complicate the identification of symptoms of substance abuse and its treatment -Discussed the dominant cultural		-Barriers to treatment for older adults: access and confusion about medication dosage and interactions
8	Mott & Gysin (2003) Aim: Describe the use of post-modern ideas in the treatment of substance use disorders at a long term residential day treatment center	Study Design: N/A Review Article Transformation of a therapeutic community into a solution-focused model	Interventions: N/A Presents case study using externalizing and a reflecting team	Key Findings: N/A Discusses: Introduces principles of post-modern therapy for substance use disorders -Solution-focused approach changes ct.'s attitudes and improves treatment effectiveness -Helps CTs become more positive and motivated -Creates better working environment where therapists see clients in a more positive light -Defines post-modern therapy; reject universal truths; mind does not mirror reality; multiple interpretations; client is expert; knowledge about ideas are socially constructed and constantly being revised; CTs create own reality; no true reality exists -Visualizing action facilitates action -Easier to build on what CT already knows than to teach something brand new -CT and practitioner equal participants and CTs participate creatively in TX process	Strengths: -Good breakdown of narrative therapy and key tenets -Integrates SFBT with NT -Program responded positively to the shift Limitations: Anecdotal	Notes: Explains externalizing the problem, the reflecting team -Motivation -Positive -Discusses the positive results of the program and how it has helped staff and clients become more positive and motivated -Overview of the medical model of addiction and the typical treatment goals and objective (assessment, diagnosis, addiction as a chronic disease) -Negative assessment of clients passes negativity to staff and the TX is sabotaged before it has begun -Client-empowered models necessitate individualized TX -TX programs for SUDs need to be more flexible; try other approaches other than 12-step which does not work for some people -Use of metaphors and visualization in NT particularly useful for substance abuse TX -NT helps with those that have problems with authority -Goals, hopes, dreams -Imagine future with a presence of something positive rather than an absence of something negative -Only treating substance use is insufficient and most will relapse -Need to assess needs beyond the realm of substance use
9	Qureshi, Claudio, & Mendez (2015)	Study Design: Clinical Case Study	Interventions: N/A	Key Findings:	Strengths: -Recognizes the impact	Notes: -NT aims to create new, positive

Aim: Address the intersection of social media sites and narrative therapy in treating substance use in urban African American adolescents

(Empirical)
-Quantitative

Sample/Population:
Urban African American adolescents

-Presents framework for interventions/how to use social media in TX through a narrative lens

~Discussion points:
-Assessment of substance use in adolescents
-Risk factors for substance use
-Adolescent substance use through a sociocultural lens
-Main tenets of narrative therapy
-Intersection of NT and SMS= NT aims to create new, positive dominant story; Facebook format intertwines stories and experiences

-Provides case vignette/clinical case study and case analysis

-Implications for treatment: implementing NT and Facebook to achieve therapeutic goals can be most optimal for adolescents who struggle with a poor self-esteem that leads to engagement in destructive behaviors
-Future recommendations: Therapists should acknowledge and accept technological advances and learn to utilize them to meet therapeutic goals

that social media has on individuals and speaks to the importance of incorporating it into treatment
-Addresses the intersection of social media sites and narrative therapy in treating substance use in urban African American adolescents
-Demonstrates how narrative therapy techniques can be used to address therapy goals
-Discusses cultural considerations and highlights their importance
-Provides clear rationale for using NT with minority adolescents and addresses issues around sexism, racism and classism

Limitations:
-Based on one case example/case analysis- cannot generalize findings
-No objective measures were used

dominant story
-Having adolescents refrain from social media may further isolate them from their peers
-Social media may be a tool for achieving treatment goals
-Social media "echoes" experiences of adolescents because they use it so much to communicate and express themselves
-Social media could have a detrimental effect on mental and emotional wellbeing
-Micro and macro-level levels of influence
-Externalizing most important technique used in NT

Culture/Context:
-Facebook and SMS are part of dominant culture
-Begin to develop sense of identity in adolescence
-Urban African American adolescents have experiences that differ greatly from other privileged groups
-If the story one creates about oneself is full of negative messages from society/dominant narrative, its impact on the individual can be detrimental
-Negative messages received online may exacerbate internalized negative messages from society
-The process of externalizing is especially important for minorities and marginalized groups because their dominant stories often revolve around their experiences with devaluation, subjugation, and oppression
-SMS plays dominant role in adolescents' lives and they can be heavily influenced by them

Table A4

Positive Psychology

	Cite & main purpose/aim	Study design & sample	Interventions	Key findings	Strengths & limitations	Additional notes/Cultural & contextual considerations
1	Akhtar & Boniwell (2010) Aim: Evaluate a pilot study application of positive psychology to alcohol-misusing adolescents -Examine the effects on adolescent well-being and alcohol habits	Design: Mixed Methods pilot study (Experimental) -Treatment vs. control Sample: -(*N*=20) convenience sample attending an alcohol and drug treatment service for young people in Bath -Experimental group: **(n=10);** 7 girls/3 boys; average age range of 14-20 (M=17.5) -Control group: **(n=10);** no specific information regarding gender or age	Interventions: -8 weekly sessions or 'zones' grounded in well-being research with group work and discussion -Each session began with a gratitude exercise followed by activities related to the week's theme -Themes/zones included: Feel Good zone, Future zone, Me zone, Chill zone, Change zone, Me to You zone, Body zone, Bounce back zone	Outcome measures: -Data Collection: 1. Semi-structured interviews exploring well-being, the experience of the program and substance habits were recoded on completion of the intervention at T2, six week later (T3) and a final follow-up 12 weeks post intervention 2. Researchers kept a reflective diary throughout the process -In quantitative study 4 reliable, validated scales were chosen for their ease of application: -Subjective Happiness Scale (measure of dispositional optimism) -Life Orientation Test-Revised -Positive and Negative Affect Schedule -Short Alcohol Dependence Data -Data Analysis: Interviews were transcribed verbatim and analyzed by thematic analysis; broken down into themes, then sub-themes -Quantitative Data Analysis: data from 4 measures were entered into SPSS and a series of tests were carried out. Repeated measures between-participants ANOVAs were carried out across T1 & T2 with happiness, optimism, positive emotions and negative emotions as the dependent variable and time and group as independent	Strengths: -Used experimental design with a clinical population -Implemented group format -enabled peer support which improved social wellbeing -Group intervention is more cost effective than one-to-one interventions -Varying the themes each week maintained interest in the sessions -Many of the self-generated goals set during the intervention were achieved; since they were not imposed goals, may have improved intrinsic motivation -This study of positive psychology interventions is promising -Extends the reach of positive psychology programs beyond prevention into treatment with SUDs Limitations: - Preliminary and used a convenience sample -Small sample size (limits external validity of results) -Gender imbalance (limits external validity) -Relied on self-report measures rather than objective measures like blood or breathalyzer tests -Some changes may have been due to maturation effects since adolescence is a time of rapid change -Changes may have been due to Hawthorne effect (change because they are the center of attention)	Notes: -Participants in the experimental group also experienced other positive outcomes (new jobs, completing educational assignments). -Authors account for unforeseen outcomes using the "broaden and build" theory (Fredrickson, 2001): the ratio of positive emotions to negative emotions increased and an resulted in an upward spiral of development -Self-generated goals may improve intrinsic motivation Culture/context: -Took place in UK -Gender imbalance -Adolescence= increased risk for hazardous drinking and related behaviors; peer pressure; conforming to norms; individuating identity; escaping distress

			variables. MANOVA tests were used for simple effects analysis. One-way within-participants ANOVAs were carried out across T1, T2, T3 and T4 with follow-up paired t-tests to determine significance Findings: Both qualitative and quantitative findings suggest that the intervention was related to a significant increase in well-being and a significant decline in alcohol consumption **-4 themes** emerged out of the qualitative data: 1. Feeling happier and experiencing more positive emotions 2. Developing "future goal orientation" 3. Reduction in drug and alcohol use 4. Transformation (change in internal mindset and external circumstances)		
2	Ciarrocchi & Brelsford (2009) Focus: Address whether aspects of spirituality and religion predict psychological and emotional well-being over and above personality and coping through alcohol or drug use	Study Design: Study Design: Cross-sectional survey (Empirical) Sample: -*n*=439-602 adults -General population (non-clinical) -College students and community members Methods: Convenience sampling approach via distribution of questionnaires to students, their friends, families and online collection at a departmental Web site Measures: 1. Brief Multidimensional	Interventions: N/A Methods: Convenience sampling approach via distribution of questionnaires to students, their friends, families and online collection at a departmental Web site Measures: -Brief Multidimensional Measurement of Religiousness/Spirituality (BMMRS) -International Personality Item Pool NEO 50-item Version -Brief COPE -Positive and Negative Affect Scales -Purpose in Life test -Faith Maturity Scale, Short Form Use of Linear Regression Analyses	Findings: - Positive affect, purpose in life, and cognitive well-being are all negatively related to substance coping, whereas substance coping is positively related to negative affect. -As SCT would seem to suggest, people search for short-term relief and comfort by using substances. Even in a nonclinical population substance coping decreases well-being and increases emotional distress -Results are consistent with SCT in that religious and spirituality variables are potential motivators for psychological and emotional	Strengths: Limitations: -Its correlational nature prohibits causal analysis (cannot know whether increased subjective wellbeing and meaning reduce the need for substance coping and inclines people toward spiritual practices, or the reverse) - Spiritual struggles, similarly, might be a by-product of decreased subjective wellbeing rather than a cause. Nonetheless, the regression analyses continue to confirm the	Notes: -Discusses Social Control Theory (SCT) -Findings demonstrate that people in the general population who cope with life's difficulties through the use of substances will experience decreased subjective wellbeing. Further research will determine whether the same pattern holds for clinical substance-abusing populations and may help guide even further a strengths-based and positive psychology approach to rehabilitation. Culture/Context: -Non-clinical population (findings may not generalize to

				well-being	predictive direction of	clinical population)
	Measurement of Religiousness/Spirituality (BMMRS) 2. International Personality Item Pool NEO 50-item Version 3. Brief COPE 4. Positive and Negative Affect Scales 5. Purpose in Life test 6. Faith Maturity Scale, Short Form Data Analysis: Linear Regression Analyses			-After controlling for demographics, personality and substance coping, both private religious practices and attendance at religious services continue to predict purpose in life and positive affect. * This affirms positive psychology models that suggest religion and spirituality contribute more to enhancing positive emotions and are less strongly related to reducing negative affect. The real power of religion and spirituality may lie in their ability to promote well-being rather than to diminish pain and suffering -The same pattern held for measures of spiritual worldviews, suggesting that both beliefs and practices help regulate emotional and psychological wellbeing. Religious practices and spiritual beliefs have the potential to regulate both positive goals and anti-goals (undesirable outcomes) associated with overall wellbeing. -These associations suggest the inherent wisdom of both 12-step traditions and standard treatment that direct attention to the importance of individuals' spiritual welfare	associations between religion and spirituality and wellbeing. -Study used a non-clinical population- don't know if same patterns would hold for those with SUDs Nevertheless, the direction of the outcomes is consistent with the decreased emotional wellbeing and self-regulatory failure typical of such populations	
3	Krentzman (2013) Focus: Review of the application of positive psychology to substance use, addiction, and	Study Design: Systemic Literature Review - Positive psychology applied to substance use, addiction, and recovery Sample:	Interventions: N/A Methods: Used a broad search strategy using the term "positive psychology" cross-referenced with the terms "alcohol,"	Key Findings: -Positive psychology has begun to be applied to theory, research, and intervention in substance use disorders -Similarities and differences between positive psychology	Strengths: -Used broad search criteria -Identifies similarities among positive psychology and recovery movement -Provides strong rationale for conducting additional	Notes: -Need more rigorous studies -Future research on the role of positive emotions and strengths in prevention and treatment for substance abuse/addiction

recovery research -Introduce positive psychology and the recovery movement, describe the research on positive psychology in the addictions, and discuss future avenues for of theory, research, and intervention based on a positive-psychology framework -Application of the science of positive psychology to rigorous addictions research and the ways in which the constructs, theories, and interventions of positive psychology dovetail with, and further the aims of, addiction studies and the recovery movement Goals: -Introduce positive psychology and the recovery movement, describe the research on positive psychology in the addictions, and discuss future avenues of theory, research, and intervention based on a positive psychology framework -Describes and marks the early influence of positive psychology on the addictions field	- 9 studies which are discussed according to the following *themes*: 1. Theoretical propositions, 2. Character strengths and drinking, 3. Positive psychology and recovery, 4. Positive interventions, and 5. Addiction: feeling good and feeling bad	"Substance use," "substance abuse," "substance dependence," "addict," "drug abuse," "drug," or "drug dependence" in PsycINFO and in PubMed. No restrictions were placed on genre, developmental stage of subject, nature of intervention (prevention, treatment) or original language -Inclusion criteria focused on substance use or addiction as the primary factor of interest and explicitly identified positive psychology as a conceptual lens used in the analysis or discussion. -Works that focused on using positive psychology as a lens to understand the benefits of drug use were excluded.	and the recovery movement -Introduction to the field of positive psychology, an introduction to the recovery movement and its evidence base, a review of extant research on efforts to apply positive psychology approaches to the addictions, and proposes avenues for future research and intervention based on a positive psychology framework -Critiques of positive psychology -Current research is scant but diverse -More and better research is needed -A critical eye is necessary to discern what is and is not positive psychological research -Positive psychology offers a framework from which to study addiction recovery -Initial work on positive interventions is promising	research in this particular field Limitations: -Small sample size- only 9 studies were included -Use of non-clinical samples	Culture/Context: -The application of positive psychology to the addictions is a multi-national phenomenon -Spiritual practices inherent in AA- Do they mediate the relationship between AA and positive affect? (i.e., prayer, meditation, reading spiritual material) -Positive, independent associations between spirituality and wellbeing regardless of substance use

4	Lindgren, Mullins, Neighbors, & Blayney (2010) Aim: Explore the association between curiosity and college women's problematic drinking in the context of sensation seeking	Study Design: Correlational study (zero-inflated negative binomial regression analysis) Sample: -N= 79 women from University of Washington -Women were part of a longitudinal study about alcohol and sexual assault -Mean age: 18.66 -53% Caucasian; 33% Asian American; 14% African American, Hispanic, or bi/multi-racial -70% Freshmen -21% Sophomores -9% Juniors or above	Interventions: N/A Measures: 1. Daily Drinking Questionnaire 2. Rutgers Alcohol Problems Index 3. Brief Sensation Seeking Scale 4. Curiosity and Exploration Inventory Procedures: -Invitation letters and emails sent out to participants -Used descriptive statistics and zero-order correlations -Data Analysis: zero-inflated negative binomial regression analysis	Key Findings: -Higher scores on exploration factor associated with fewer alcohol-related problems -Higher scores on the absorption factor associated with more alcohol-related problems -Sensation seeking was positively associated with drinking-related problems -Sensation seeking and the two curiosity factors each made unique contributions towards the prediction of alcohol-related problems -The two factors of curiosity are distinct from sensation seeking -Exploration factor may be a protective factor against alcohol-related problems -Absorption factor may be an added risk factor	Strengths: -Findings suggest relationship between positive psychology construct (curiosity) and alcohol-related behaviors -Provides preliminary support for potential usefulness of studies on character strengths and substance abuse Limitations: -Non-Clinical Sample-limited to U.S. undergraduate student women; limits generalizability of findings -Non-clinical sample -Correlational design does not allow for conclusions about cause	Notes: -Possible implications for prevention and treatment using character strengths -Sensation seeking measure used was different from one used in previous study (Kashdan et al., 2004); contradictory findings as well Culture/Context: -Don't know if findings would generalize to men -Don't know if findings would generalize to clinical population -Education level (college students) -53% Caucasian
5	Logan, Kilmer, & Marlatt (2010) Aim: To examine the relationship between alcohol use and positive psychology's character virtues in a college student sample -To identify links between the fields of addictive behaviors and positive psychology	Study Design: Correlational study Empirical -Sample: 425 undergraduate students (69% female; 52% Caucasian; 34% Asian)	Interventions: N/A -Methods: Participants completed paper and pencil questionnaires in exchange for extra credit in psychology classes -Measures: All measures were self-report and were selected based on validity and reliability in prior studies with college students and/or for comparability with similar subjects. -Demographic variables collected included sex and weight to calculate approximate Blood Alcohol Level (BAL), age, race/ethnicity, year in school, current GPA, housing situation, sports/club affiliation, volunteer status, and current leadership roles -Character Strengths and Virtues: The primary measure was the VIA -Drinking Assessment: A modification of the Daily Drinking Questionnaire (DQQ) was used to	Key Findings: -Temperance is associated with abstinence, low-risk drinking, lower blood alcohol levels, and fewer consequences even among heavy drinkers	Strengths: -Study provided a foundation for future research combining both positive psychology with risk and health behavior research. -There are numerous potential studies to follow up these data Limitations: -It is surprising that the other 3 virtues of wisdom, courage, and humanity were not significant in any analyses. It is possible our inability to detect differences was related to limitations of this study, especially the low alpha of .008 to retain an overall alpha of .05. It is also possible that specific strengths acted in opposite	Notes: -Further research is needed to distinguish the relationship of individual strengths and specific outcomes, though it could be hypothesized that self-regulation would be closely related to moderation, whereas prudence would be related to abstinence as well as moderation. The roles of forgiveness and humility should also be differentiated to allow for maximum benefit and effectiveness in interventions. Additionally, because transcendence and justice were related to abstinence but were not related to risk, BAC, or consequences after initiation, further research could explore those relationships. Given the associations of strengths and virtues with lower drinking amounts and

		measure average number of standard drinks for each day of the week over the last 3 months as well as the daily duration (inclusion of duration was the modification of the DDQ for this study), allowing for the computation of estimates of BAL.- Allowed for the identification of high-risk drinkers (greater than .08 BAL) -The AUDIT was used to assess level of risk -Drinking Consequences were measured through the Young Adult Alcohol Problem Screening Test (YAAPST)		directions, thereby producing an overall null effect. -Use of a convenience sample that primarily identified as female, Freshman, and either White or Asian-American (generalizability to other college students limited) -Drinking measures were self-report and retrospective, and although each measure has demonstrated sufficient reliability and validity with college students, results should still be interpreted cautiously. -Limitations embedded in the virtues and classification itself- high correlations between strengths and virtues, variability of strengths within each virtue, and theoretical rather than statistical inclusion criteria limit interpretation of these results.	consequences, future research could explore how to integrate these into existing alcohol intervention curriculum Culture/Context:
6	Selvam (2015) Aim: Identify the character strengths relevant to addiction and recovery -Explore, from the theoretical framework of positive psychology, the prevalence of character strengths in the research reports on the association between addiction and spirituality Research Questions:	Study Design: Qualitative systematic literature review (QSLR) of addiction-spirituality literature Sample: 53 selected peer-reviewed articles	Interventions: N/A Methods: Qualitative Thematic Analysis (import articles into NVivo software coding system for analysis and coding process). QTA identifies, analyses, and reports patterns (themes) within data. -This is a flexible method that is similar to qualitative content analysis Procedure: (steps suggested by standard sources on qualitative analysis in psychology): Step 1: Initial Coding Step 2: Axial Coding Step 3: Thematic Identification Step 4: Report Writing	Key Findings: -Out of the 53 articles reviewed, 22 were on the 12 Steps approach to recovery. Each of the 12 steps can be argued to correspond to one or more character strengths that feature in the list of Values in Action. -The character strengths that were most salient in the addiction-spirituality research were: spirituality, followed by kindness. Those that were barely mentioned were citizenship, then humor and gratitude. Those that were not mentioned at all were curiosity, open-mindedness,	Strengths: -Identifies gap in the literature- lack of theoretical framework connecting spirituality and recovery from addiction -Discusses relevance of PP character strengths to addiction-spirituality research -Provides rationale and recommendations for future research Limitations: -The literature search for this review was based on digital databases alone, so the presence of some bias in	Notes: -Author poses the following questions: could addiction be related to lack of character strengths? Could recovery be facilitated by interventions to maximize relevant character strengths? -Many of the character strengths within the VIA are also prevalent in the literature pertaining to the relationship between spirituality and recovery from addiction. The exact words used to describe the character strengths are not the same but the concepts are the same. AA doesn't use

	1. Which of the character strengths of positive psychology, or their thematic and lexical equivalents, are prevalent in addiction-spirituality literature published in peer-reviewed journals? 2. How are these themes handled within the addiction-spirituality literature?			bravery, persistence, leadership, prudence, and appreciation of beauty. -One of the articles reviewed in this QSLR proposed that AA can be explored within the framework of positive psychology, particularly focusing on how AA might influence positive affect and how this can facilitate recovery. -Another observation: the character strengths that have been identified in this analysis seem to also be supported by religious traditions, particularly the indigenous religions. The 12 steps of AA actually render these character strengths in a contemporary mode of speech.	the sampling process cannot be ruled out. -The coding process in the thematic analysis was carried out mainly by the author (then a research student). A thorough collaborative analysis on the selected literature could improve the reliability of the findings.	theoretical language or adhere to a specific theory but it seems that parts of the tenets of AA may be understood through a positive psychology framework. Culture/Context: -When developing VIA, researchers examined religious and cultural institutions; Character strengths in the VIA are supposed to be universal-biological -Virtues do not carry moral implications in philosophical or religious sense -Possible relationship between spirituality and recovery from addiction
7	Webb, Hirsh, & Toussaint (2015) Aim: Review the literature pertaining to the value and role of forgiveness as an effective resource for clinicians when treating individuals struggling with substance abuse and suicidal behavior -Discuss relevant theory and research regarding similarities in models of forgiveness, substance abuse, and suicidal behavior -Provide an overview of various means of using the process of forgiveness as a positive psychotherapy	Study Design: Literature Review Sample: -Empirical research on the positive psychological principle of forgiveness in the context of both substance abuse and suicidal behavior -No specification of origins of research	Interventions: -N/A	Key Findings: -Forgiveness may be an important factor in the facilitation of change in the difficult struggles associated with substance abuse and suicidal behaviors -Process of forgiveness may be used as a positive psychotherapy either as a stand-alone or in conjunction with other approaches -Forgiveness is a specific aspect of spirituality that has received considerable attention with regard to health-related concerns and the literature pertaining to substance abuse is emerging -Forgiveness is a coping mechanism -Potential physical health benefits of forgiveness -Multiple dimensions of forgiveness are meaningful and perhaps essential in	Strengths: -Provides a summary of the clinical and therapeutic relevance implicit in the process of forgiveness -Identified potential mediators of forgiveness and substance abuse based on theoretical and empirically supported variables Limitations: -Parameters for literature search not specified -No mention of population characteristics	Notes: -Little work has been dedicated to fostering preexisting strengths or facilitating spirituality and/or forgiveness among those at risk for substance abuse or suicidal BXs. -Counterproductive nature of aggressive confrontation -Vital role of therapeutic relationship -MI indirectly cultivates strengths while positive psychology directly cultivates human strengths and virtues -Wellbeing is more than absence of symptoms Culture/Context: -Spirituality conceptualized as having 3 components-ritualistic spirituality (structured); theistic (non-structured connection with deity); existential (search for

		addressing problematic substance use; forgiveness of self may be most important -Empirical research on forgiveness in the context of substance abuse and suicidal behavior shows promising research and holds good potential as a positive psychology technique			meaning and purpose) -Beneficial relationship between spirituality and health-related concerns -When congruent with clients' value and belief systems, explicitly facilitating and fostering forgiveness and its spirituality base can be very beneficial in substance abuse treatment

Total: 7			
Empirical: 4		Theoretical/Review: 3	
Experimental: 1	Non-Experimental: 3	Theoretical:	Review: 3

Table A5

Strengths-Based Perspective Programs

	Cite & main purpose/aim	Study design & sample	Interventions	Key findings	Strengths & limitations	Additional notes/Cultural & contextual considerations
1	Cleek, Wofsy, Boyd-Franklin, Mundy, & Howell (2012) Aim: Describe the Family Empowerment Program (FEP) as a model for improving treatment with families who present for treatment at "traditional" mental health centers	N/A Journal Article Program Description Goals of program: -Emphasize family strengths and competencies and support family self-sufficiency -Deliver theoretically sound interventions in a manner that is sensitive to the cultural contexts of families served -Respond proactively to fragmentation of care among families in community mental health centers Developed by the Institute for Community Living (ICL) – a New York City based not-for-profit corporation that includes a broad array of services for adults, children, and families -Included housing supports, outpatient mental health clinics, community support, outreach services, and healthcare services -Comprised of an interdisciplinary team that partners with multi-stressed urban families	Interventions used in Program: -Utilizes a multi-systemic intervention with 3 central components of the program 1. Interventions involve parent advocates through their resource center 2. Offer an array of workshops, and support groups, -3. Family therapy component- based on Brief Strategic Family Therapy (BSFT) -The FEP's central activities are consistent with the principles of recovery which include notions of first and second order changes	Key Findings: -Uses an example of a case to demonstrate the process and the positive outcomes they have experienced with the program	Strengths: N/A Limitations: N/A	Notes: Culture/Context: -In order to identify and facilitate integration of cultural context in to the clinical work, clinicians are trained from the outset of hire to be sensitive to clients' age, gender, and cultural issues -Process begins during intake assessment where clients are asked to complete a person-centered survey specifically developed to identify cultural needs and background, as well as individually identified strengths, needs, interests, and goals -Highlights the importance of integrating cultural context into clinical work with racially and ethnically diverse low-SES individuals and families -In addition to the integration of cultural context into therapy, parent advocates at the center who are from the same cultural, racial, linguistic and socio-economic backgrounds as families participating in the program often serve as "cultural bridges," and their involvement fosters a more seamless inclusion of cultural context
2	Gallardo & Curry (2009) Aim: Provide a strengths-based framework through which to intervene with Latino substance users	Study Design: N/A Journal Article Culturally responsive framework Population of interest: Latino substance users	Interventions: N/A	Key Findings: -There is an ethical necessity to develop more culture-specific skills and culturally responsive interventions -Must become social advocates rather than one-on-one therapists/service providers -Need to examine clients' lives within the social, political, and cultural contexts	Strengths: N/A Limitations: N/A	Notes: Culture/Context: -Latino worldview experience and worldview conflict with the traditional therapeutic model -Culturally sensitive psychologist must carefully consider aspects of a client's substance abuse problems that are not bound by Western convention

				-Substance abuse is a growing concern among the Latino community -Over half of Latino clients who seek mental health care terminate treatment after just one session		-Addresses acculturative and minority stress -Addresses components of cultural responsiveness -Suggestions for culturally responsive treatment
3	Gray & Gray (2001) Aim: Describe an experimental, strengths-based program for the treatment of substance abusers	Study Design: N/A -Journal Article- Program Description Population & Setting: Substance abusing offenders under criminal justice supervision in the United States Probation Department -Involuntary clients Program Description: Brooklyn program that has been in existence for 2 years (as of 2001) Techniques are based on Jungian presuppositions regarding the nature of the Self Consists of an inventory of past positive experiences and the unifying life themes that develop from them Identifies elements of successful treatment throughout the literature	Interventions: N/A	Key Findings: -Responses to the program have been positive but they are anecdotal because no formal research data has been collected -High rate of treatment retention -Client responses indicate that this approach of overcoming addictive behavior by enhancing access to personal resources and developing strong positive sense of Self -At end of program clients reported thinking less about drugs and more about their futures -Clients reported enhanced familial relations and more enjoyment of life in general -Most felt that they had grown in some significant manner and are intuitively aware of having greater sense of personal choice and empowerment	Strengths: N/A Limitations: N/A	Notes: Culture/Context:
4	Haris et al. (2012a) Aim: -To examine adolescents' perspectives on the contribution of a strengths-based orientation to the development of group cohesion Goals:	-Qualitative analyses -Data Analysis: Thematic analysis was used to analyze and interpret the qualitative date (a qualitative method that follows a series of stages that allow researchers to identify, analyze, and detail themes reflected within the data -Face to Face individual exit interviews were conducted with adolescents who has just		Key Findings -Suggest that working from a strengths-based perspective could help facilitate the development of several aspects of group cohesion which in turn can have positive effects on treatment outcome -Many of them believed that the strengths-based therapeutic discussions and strengths-based group exercises helped facilitate positive group cohesion between (a)	Strengths: -Provides some initial ideas for research Limitations: -Relationship between the strengths-based approach and aspects of group cohesion are complex and future qualitative and quantitative research is needed to further examine	Notes: -Addresses the importance of group cohesion Culture/Context: -Adolescent substance use is a major problem -Most drop out of treatment early -Strengths-based therapy is a set of skills and competencies embedded in culture that are valued by both the individual and

	-To examine therapeutic strategies that could help facilitate the development of group cohesion within substance abuse treatment programs for adolescents -To explore adolescents' perspectives on the extent to which strengths-based therapeutic strategies and techniques contributed or not to the development of different aspects of group cohesion - Adolescents' subjective understanding of group therapy experiences was examined to investigate if the strengths-based approach influenced aspects of group cohesion including group satisfaction, group climate, self-disclosure, and engagement	completed a residential strengths-based treatment program for substance abuse -Interview conducted by case managers who were known to the participants prior to the interview -Interviews conducted using a set of open-ended questions, developed by researchers, that were designed to collect information about the adolescents' treatment experience -All answers were typed directly into computer and participants' identifying information was anonymous -*n*=36 adolescents in Canada following a 5-week strengths-based residential treatment program for substance abuse -18 females; 18 males; ages ranging from 15 to 18 years (M=16.6, SD=1.1) -Participated in a qualitative interview		themselves and other individual group members, (b) themselves and the group as a whole, and (c) themselves and the group leaders -Strengths-based exercises early in treatment could help youths identify common strengths and promote engagement in a constructive way -Group therapy can be a particularly powerful means of incorporating the strengths-based approach within psychotherapy -The strengths-based approach is associated with positive client perspectives toward the overall treatment environment as well as toward the client-therapist relationship which leads to increased retention in treatment	these avenues -Small sample size	society
5	Haris et al. (2012b) Focus: Adolescents -To enhance understanding of adolescent experiences in treatment and what factors may lead to successful outcomes Goals: -Gain understanding of adolescents' experience of a strengths-based residential treatment program and the treatment components that they attribute to their success	-Qualitative analysis -Thematic analysis (qualitative data analysis) -Participants engaged in an exit interview following completion of a strengths-based treatment program for substance abuse -Scripted questions were used by caseworkers who conducted fact-to-face individual interviews to obtain information about the adolescents' treatment experiences -Interviewer also used open-ended interviewing strategies -Used a keyboard and computer to record responses;	Interventions: N/A	Key Findings: -Strengths-based approaches to clinical work have gained increasing prominence and represent a shift in clinical work away from concentrating almost exclusively on treating individual disorders to a focus on also promoting an individual's strengths and optimal functioning -Youths reported that the strengths-based approach promoted engagement and was the most useful aspect of treatment while attending the program -Bringing forth information about individual strengths into focus for	Strengths: Limitations: -Interviews were conducted by caseworkers who worked in the residential program. Their relationship may have influenced the youths' responses either positively or negatively -Since mostly positive responses, it is possible that a more favorable report was provided than would have been the case if the interviewers had not been involved in the	Notes: Culture/Context:

removed all identifying
information
-*n*=52 adolescents
-ages 15 to 18 (m=16.5,
SD=0.9); majority female

each youth was reported as positive
and productive for the participants in
this study

-The importance of individual
strengths has been identified across
several studies as a factor that can be
protective against substance use
(although it is often called "social
competence" by researchers)

-Strengths related to setting and
achieving goals have also been
suggested to buffer individuals
against substance use issues

delivery of the program

-Small sample size

-Findings may not be
generalizable to other
settings

-Further research is
needed

| 6 | Karroll (2101)

Aim:
-Provide social work
practitioners with relevant
information pertinent to
the empowerment
perspective, the strengths-
based perspective, and
harm reduction
approaches as they apply
to people with SUDs | Study Design:
N/A
Journal Article-Review

-Reviews the application of 3
approaches to better serve
those with SUDs
1. Social Work approached
2. Harm Reduction
3. Practice Wisdom | Interventions:
N/A | Key Findings:
-Social workers have applied the
empowerment perspective and the
strengths perspective in practice but
application of the harm reduction
approach is relatively new in the
literature
-Proposes strategies involved in
assessment, treatment planning, and
treatment delivery that integrate the 3
perspectives/approaches in order to
better serve the SUD population
-Clinical Interventions /clients-
1. Every interaction provides
opportunity for intervention
2. Listen attentively, empathically
and offer choices for meeting times.
Offering choices empowers clients to
take control of their treatment.
Flexibility in availability has been
found to be key to successful helping
relationships
3. Discuss clients' expectations and
goals for treatment in the first
session. This conveys that what they
want is the most important and helps
with the therapeutic relationship.
Also alerts clinicians to the clients'
stage of change which guides choice
of intervention (experiential to build
motivation or behavioral)
-Assessment-
1. Assessment process is key to | Notes:
-Strengths perspective: collection
of ideas and strategies that seek
to help clients develop their
natural abilities and capabilities
-Based on the assumption that
clients who come for help
already possess various strengths
and competencies that can be
tapped into to improve their
situations
-All people have goals, talents,
and confidence and all
communities have resources,
people, and opportunities
-People learn about their
strengths under both negative
and positive circumstances
-Strengths also evolve from
personal qualities, virtues,
knowledge about the world
around them, cultural and
personal stories, their natural
sense of pride, and spirituality
-Assume all humans are capable
of change and growth
-People must be seen from a
viewpoint of their capabilities,
competencies, talents, visions,
etc. regardless of their
experiences of trauma,
oppression, difficult life
circumstances |

developing a helping alliance between clients and practitioner

2. Problematic substance/alcohol use should be defined in terms of the occupational, social, and emotional consequences that result from use rather than the frequency and quantity of their substance use

3. Recognize that SUDs fall on a continuum ranging from simple problematic to hazardous to harmful to abuse and dependence

4. Avoid all judgments and negative labeling such as 'denial' 'resistance' 'unmotivated.' Phrase substance use in positive terms-a strategy they leaned to help deal with life that is no longer working

5. Treatment will likely be about habilitating, rather than re-habilitation clients because many never learned appropriate and healthy coping skills but are capable of doing so

6. Offering hope and reframing problems will allow for the development of attitudes and language about opportunity and possibility

7. Allow clients to have a voice in the problem remediation

8. Conduct thorough assessment and let clients know that the point is to identify possible impairments and consequences associated with substance use

-Treatment Planning-

1. After assessment present findings in a non-confrontational manner. Don't use labels. Refer to disorders as something that they have to help them deal with their lives

2. Use clients' self-determined goals to create treatment plan

3. Help clients to define controlled use and have them identify what substances they wish to cease and which they plan to continue using

4. Build on past success

-When people reawaken their personal abilities they are capable of making significant progress and open a world of options and choices rather than problems

-Focus is on strengths, possibilities, wellness rather than sickness and pathology

-Clients' strengths and resources need to remain central focus

-Community is viewed as a major source of resources

-Interventions are individually tailored to the unique needs of the clients based on the goals they determine and set for themselves; therapists do not set goals without clients' permission

-Client-practitioner relationship is of primary importance and is essential

-Traditional office-based practice is kept to a minimum (usually conducted where people live instead)-More applicable to social work rather than clinical psychology

5. Know the stages of change and intervene accordingly
6. Recurrence/relapse addressed by acknowledging the important function it serves- a tool to learn from. It is a healthy part of the recovery process.
7. Connect them with positive support-family, community, etc.

| 7 | Lietz (2011)

Aim:
Understand how resilient families describe and appraise their pro-social actions | Study Design:
Qualitative Study

Sample:
-20 resilient families who maintained functioning despite experiencing a multitude of risk factors (i.e., poverty, sick children, substance abuse) | Interventions:
N/A | Key Findings:
-Reasons identified for engaging in pro-social behaviors-
1. To benefit others
2. To honor memories of loved ones they have lost
3. To make meaning in their lives
4. Survival
5. Empathic accuracy | Strengths:
Identifies some of the ways resilient families describe helping behaviors

Limitations:
The sampling procedure did not recruit large enough samples or random sample to allow for generalizability
Offers only a one-sided perspective of helping behaviors | Notes:
Study offers implications for strengths-based practice in social services
Families facing difficult situations (i.e., substance abuse) may find meaning through altruistic behaviors so social workers may want to encourage these behaviors in order to help build resilience
May create opportunities for families to receive help from other families (consistent with S-B focus on finding strengths/resources within the environment
Going through difficult times may create desire to help others going through difficult times

Culture/Context:
High risk families include those with multiple risk factors-Poverty, disorganized communities, high level of stress |
| 8 | Padesky & Mooney (2012)

Aim: Strengths based CBT to build resilience | Study Design:
Review Article

-Special issue article
-Construct a CBT approach for building resilience | N/A | -Four step approach for helping people build positive qualities
-Has not been empirically tested
-Helpful adjunct for clients who report or show evidence of not being resilient
-Can be used as a stand alone approach to helping people become more resilient but not intended to replace classic CBT approaches for treating depression, anxiety and other disorders
-Adapted some changes to standard | | Notes:
Goals were to show how Padesky and Mooney's four-step Strengths-based CBT model is designed to help clients build positive qualities and strengthen personal resilience
-Interested in developing a model that would help people construct a personal model for remaining resilient in the face of life's obstacles without necessarily referencing a particular disorder |

CBT practice such as increased use of smiling, silence, imagery, metaphors and constructive therapy methods and interview practices

| 9 | Pattoni (2012)

-Focus: Strengths-based approaches for working with individuals
-To provide an overview of the research evidence on effective strengths-based approaches for working with individuals Goals:
-To better understand the use of a strengths-based perspective for transforming relationships between practitioners and people who are supported by these services
-To provide an overview of the evidence of methods that align most closely with the focus
-To present illustrative examples | Study Design:

Systematic Review "Insight"
-Overview of the evidence | N/A | Key Findings:
-What is strengths-based practice:
1. A collaborative process between provider and individual that draws on the person's individual strengths and assets
2. Concerned with the quality of the relationship and the elements the individual seeking help brings to the process
3. Working collaboratively promotes opportunity for individual to be co-producer of services and support rather than solely consumers of services

-Different types of approaches:
1. Solution-focused therapy,
2. Strengths-based case management
3. Narrative, and
4. Family support services

-Standards for judging what constitutes a strengths-based approach (6)
1. Goal orientation
2. Strengths assessment
3. Resources from the environment
4. Explicit methods used for identifying client and environmental strengths for goal attainment
5. The relationship is hope-inducing
6. Meaningful choice: collaborative stance where people are experts in own lives and the practitioner's role is to increase and explain choices and encourage to make informed choices

-Evidence about what works
1. Evidence is just beginning to emerge
2. As of 2009 apparent lack of research evaluating the efficacy of strengths-based treatment of any kind
3. Evidence for SB practice is | Strengths:
N/A

Limitations:
N/A | Notes:
Not related to substance abuse

Culture/Context:
Does not specifically address cultural or contextual factors |

difficult to synthesize
4. Not a strong evidence base
5. Emerging outcomes: Improving social connections; enhancing well-being; children, young people and families; improving retention in treatment programs for those who misuse substances

-Implications for practice:
Develop approaches that look at the whole picture of person's life rather than polarizing their practice
Identifying strengths is a large part of the solution
Assessment- assessment tools too focused on deficits and inadequacies. Significant efforts are being made to develop assessment tools that incorporate strengths elements (still in the minority)

-ROPES model (Resources, Opportunities, Possibilities, Exceptions, and Solutions) - draws on strengths and encourages a holistic and balanced assessment of the strengths and problems of an individual in specific situation

-Practitioner Role: work collaboratively to exercise choice and control over support they may need. Relationship is the cornerstone of this approach regardless of theory
-Practitioner to be more focused on future than on past, more focused on strengths than weaknesses, from thinking about problems to thinking about solutions, less about being the "fixer" of problems and more about being a co-facilitator of solutions

-SB approach is not simply about different tools or methods that are used with people who use services; it is about different concepts, structures and relationships that we build in our support services

10	Priebe, Omer, Giacco, & Slade (2014) -Focus: Resource-oriented therapeutic models in psychiatry -To conduct a conceptual review of resource-oriented therapeutic models in psychiatry, in order to identify their shared characteristics -Not related to substance use disorders	Study Design: N/A Article Review Conceptual Review -Ten models of treatment were included: befriending, client-centered therapy, creative music therapy, open dialogue, peer support workers, positive psychotherapy, self-help groups, solution-focused therapy, systemic family therapy and therapeutic communities -A systematic search of the literature to identify a range of resource-oriented models, particularly for patients with severe mental illness -Literature was analyzed using a two-stage narrative synthesis approach to synthesize the concepts & characteristics	Key Findings: - Range of different therapeutic models in psychiatry address resources rather than deficits. -All models utilize social relationships to induce therapeutic change/central in all models -Six resources are utilized in resource-oriented therapeutic models: social relationships, patients' decision-making abilities, experiential knowledge, patients' individual strengths, recreational activities and self-actualizing/correcting tendencies -Four types of social relationships that can be used: i.e. with professionals, peers, friends, and family -The nature of the relationships suggests a unidirectional helping relationship for most of the models, although some appear to be more reciprocal -The majority of the models suggest the expertise lies with the patients, either the patient in question or peers who have had similar experiences -Further empirical research on social relationships is badly needed in psychiatry, and may inform the development of new therapeutic models in the future	Strengths: -May inform the development and application of resource-oriented approaches through understanding how social relationships affect mental health -Searched widely and included different perspectives -Were able to gain a diverse understanding of the disparate literature, to conceptualize resource-oriented therapeutic models and to arrive at criteria for characterizing key aspects Limitations: -The reliance on expertise within the research team may have made the review and analysis selective -The findings represent the interpretation of the research team, may be influenced by their belief in the importance of a social dimension of mental healthcare, and do not constitute an exhaustive understanding of resource-oriented models in psychiatry -The characterization of some models may be seen as simplified and debatable -Focused only on resource orientation without exploring how such an approach my be integrated with a deficit orientation	Notes: Goals: -Identify shared characteristics of resource-oriented therapeutic models in psychiatry -To compile a non-exhaustive list of distinct therapeutic models in psychiatry that can be seen as resource-oriented and to identify their key characteristics -To compile a diverse sample of distinct models
11	Thompson, McManus, & Voss (2006) Aim: Review the	Study Design: N/A -Review of empirical research	Interventions: N/A	Key Findings: -Lack of research on homeless youth with co-morbid PTSD and substance use	Strengths: N/A Limitations: N/A	Notes: -Reviews the basics of strengths-based approach -Mentions SFBT as one

empirical research concerning TX issues and options appropriate for homeless adolescents with co-morbid PTSD and SUDs

Population of interest: Homeless adolescents with co-morbid PTSD and SUDs

-Need for greater integration of services for co-occurring mental health and SUDs
-SUD may be secondary to mental health problems
-Service providers and homeless youth report brief, strengths-based practices delivered in the youths' environment can be effective more so than 'problem-oriented' approaches

strengths-based approach
-Notes that S-F techniques may be particularly useful during the assessment phase
-Builds the expectations that change is possible and likely
-Basic assumption is that small changes lead to bigger changes
-Emphasis on strengths, resiliency, and instilling hope can help build rapport

Culture/Context:
-Homelessness exposes youth to significantly higher risk for trauma and substance abuse
-Goals must be on transitioning them into a safe physical and emotional environment
-Research is needed to better understand the varied aspects of the culture of youth homelessness, as engagement with these youth requires more than providing basic services of shelter, food, and clothing
Notes:

12	Winek et al. (2010)	Study Design: N/A	Interventions: N/A	Key Findings:	Strengths: N/A	

Aim:
Explore issues of development and implementation of a family-based strengths-based approach to substance abuse treatment

Journal Article
-Program/Approach Description
-Support Network Intervention Team (SNIT)

-Provides a case report for clarity and illustration

Description of SNIT:
-Approach that is part of a family-based, child-centered systematic treatment program that views addiction as not only a personal issue but intricately interconnected to the family and other significant systems
-Draws from 4 systematic theoretical orientations:
1. Strategic
2. Solution-Focused
3. Structural
4. Experiential

Key Findings:
-The SNIT is both an intervention and a modality of a systemic approach to substance abuse treatment
-It is an intervention in that it helps unify support and create accountability
-Builds on the strengths of the individual and the family
-Changes the focus of treatment from being solely on the addiction and related problems to building on strengths and increasing capacity for innovation

Strengths: N/A
Limitations: N/A

Culture/Context:
-Addresses the interconnectedness of family and significant systems with individuals with SUDs
-Entire family is affected by addiction

Total: 11			
Empirical: 4		Theoretical/Review: 7	
Experimental: 1	Non-Experimental: 3	Theoretical:	Review: 7

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APPENDIX B

Figure B1: Literature analysis flow chart

Review of Strengths-Based Treatment: 108
Note: 49 articles were excluded due to lack of relevant subject matter or due to the use of combined treatment approaches

Strengths-Based Treatment for SUDS: 59

MET: 23

Narrative Therapy: 9

Positive Psychology: 7

SFBT: 11

General S-B:9

Theoretical/Review Studies
Total: 23

Empirical Studies
Total: 36

Critical Analysis of the Literature

Methodological Critiques
-Sampling
-Random Assignment
-Psychometric properties of measures
-Internal and External Validity
-Reliability

Conceptual Critiques
- Congruency w/Theory
-Conceptualization of substance use disorders
-Concept of strengths

Common Themes
- Focus on Internal strengths
-Culturally Responsive TX
- Non-confrontational positioning of therapist
- Collaboration & Goal Setting

Clinical Implications
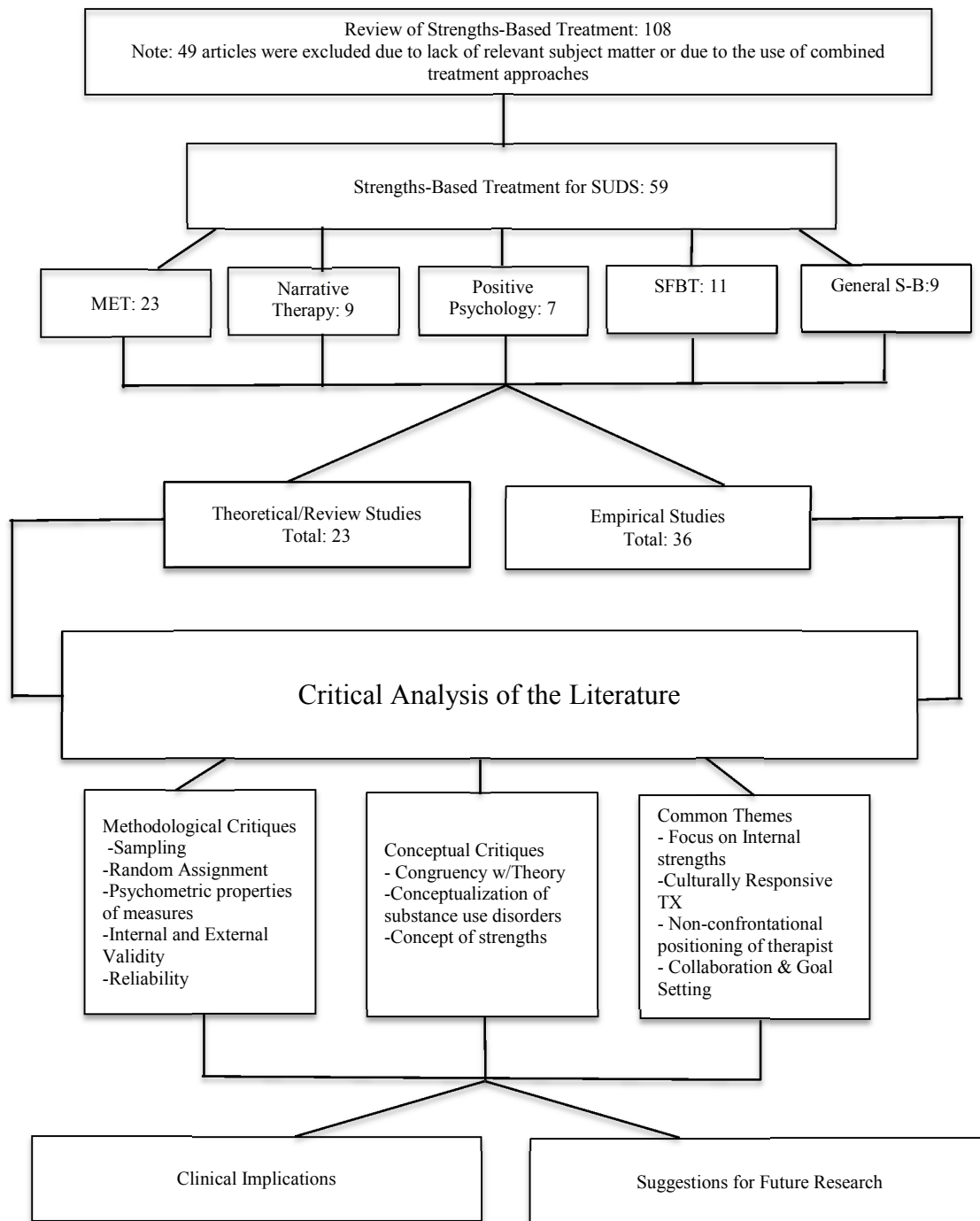
Suggestions for Future Research

Figure B1. Literature analysis flow chart

APPENDIX C

GPS IRB Exemption Notice

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

August 23, 2016

Jennifer Berg

Project Title: Strengths-Based Treatment of Substance Use Disorders: A Critical Analysis
 of Literature
Re: Research Study Not Subject to IRB Review

Dear Ms. Berg:

Thank you for submitting your application, *Strengths-Based Treatment of Substance Use Disorders: A Critical Analysis of Literature*, to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). After thorough review of your documents you have submitted, the GPS IRB has determined that your research is **not** subject to review because as you stated in your application your dissertation **research** study is a "critical review of the literature" and does not involve interaction with human subjects. If your dissertation research study is modified and thus involves interactions with human subjects it is at that time you will be required to submit an IRB application.

Should you have additional questions, please contact the Kevin Collins Manager of Institutional Review Board (IRB) at 310-568-2305 or via email at kevin.collins@pepperdine.edu or Dr. Judy Ho, Faculty Chair of GPS IRB at gpsirb@pepperdine.edu. On behalf of the GPS IRB, I wish you continued success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph. D., ABPP, CFMHE
Chair, Graduate and Professional Schools IRB

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives
        Mr. Brett Leach, Compliance Attorney
        Dr. Amy Tuttle, Faculty Advisor