Integrated Psychosocial Treatment Programme for Substance Abusers: Relapse Prevention and Social Anxiety Diminution: A systematic Review of Published Literature

Prem Kumar Shanmugam* and Rasaiah Munidasa Winslow

1Programme and Clinical Consultant, The Cabin Chiang Mai, Singapore
2Department of Psychological Medicine, National University Singapore, Singapore

Abstract

This review presents a systematic evaluation of the literature of psychosocial treatment programmes for substance abusers published from 1995 to 2010. It identifies the active ingredients of treatment and evaluation of outcomes. For the purpose of the study, two questions were posed: (i) Do psychosocial treatment programmes prevent relapses? (ii) Do psychosocial treatment programmes prevent relapses and reduce social anxiety? A systematic and comprehensive search was conducted by using Econ Lit with EBSCOHOST, ERIC, PsycARTICLES, PSYCRITIQUES and PsyINFO. Initial findings revealed only three directly related articles for the last 10 years and extending the search to 1995 provided for a more concise pool of studies. Substance dependency is a specialized area of study and it was necessary to justify the search terminologies. To derive a comprehensive and substantive review, it was necessary to include and also exclude certain components from the search further. This review presents the findings and a summary of psychosocial treatment programmes based on the research questions posed.

Keywords: Social anxiety; Psychosocial treatment; Drug relapse prevention; Co-existing problems; Comorbidity; Drug abuse; Substance use; Substance dependence; Intervention; Treatment outcome

Operational Definitions of Key Terms

For ease of understanding this review, specific terms are operationally defined below: Substance dependence is pathological and unintended while substance abuse is intentional and “conscious” [1]. The dependency is a relapsing disorder caused by alcohol, opioids and other psychoactive substances [2]. Relapse, is a failure in the process to remain abstinent from the substance or the return to a pre-abstinence level of substance dependency/abuse by the individual [3]. Social anxiety is about emotional anxiety or discomfort in social situations or feelings of being evaluated and scrutinized by other people (Avants et al.) [4]. Psychosocial treatment programmes incorporating skills training, psychoeducation, structured group activities and a broad range of non-pharmacological interventions - referred to as treatment with no drug prescriptions - are meant to address the multitude of issues in substance dependency [5]. Psychosocial treatment programmes do not include solely focused forms of therapy such as Cognitive Behavioural Therapy, Solution Focused Therapy or Rational Emotive Therapy and other forms of Humanistic or Behavioural Therapy. Co-morbidity for the purpose of this study refers to the existence of other disorder/disorders in addition to the substance use disorder.

Background

Introduction

There is substantial amount of literature on the treatment of substance abuse disorders and co-morbidity [6-8] available. However, the treatment models employed may not be directly applicable for persons diagnosed with co-morbidities such as social anxiety and substance dependency [8]. There does not appear to be an integrated psychosocial treatment programme for substance abusers to prevent relapses and to reduce social anxiety.

The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) reported form a survey (N = 43,093) that there is a high risk of co-occurring anxiety and substance use disorders (Smith and Book [9]). The results further revealed that anxiety disorders were more related to substance dependence (odds ration [OR] = 3.0 – 6.0) than substance abuse (OR = 1.2-1.6) [9]. Lubman et al. [10] discuss the co-morbidity’s negative impact on quality of life while [11] reiterate that prevalence of co-morbidity causes serious repercussions.

Substance abuse disorder is becoming a serious problem in many parts of the world. Fifty three percent of people with substance use disorders (other than alcohol) suffer from at least one other mental disorder [2]. In the United States, anxiety and substance use disorders are some of the most common psychiatric problems with lifetime rates of 28.8% and 14.6% respectively [9]. Stressful life events have been proposed as contributing factors towards the acceleration of substance use [12]. The belief that drugs can relieve stress [13] indirectly motivates and nurtures the drug seeking behavior.

Existence of the problem globally

Co-morbid social anxiety and substance abuse disorders are prevalent around the world – An estimated 25% substance abusers in inpatient treatment settings in the United States [14,15] and Brazil [14,16] are diagnosed with specific co-morbidity. In New Zealand, 31% of substance abusers are treated as outpatients [14,17] while 23.3% outpatients in the United Sates [14,18] are diagnosed with co-morbid disorders. On the other hand, there does not seem to be any form of systematic review conducted or published particularly on social anxiety and relapse prevention for substance abuse disorders. Book et al. [14] further affirm this in their report that there are few studies which discuss the relationship between social anxiety and substance abuse.

*Corresponding author: Prem Kumar Shanmugam, Programme and Clinical Consultant, Masters Counselling, The Cabin Chiang Mai, Singapore, Tel: +6593393328; E-mail: premkumar@thecabinchiangmai.com

Received December 09, 2012; Accepted February 22, 2013; Published February 27, 2013


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Social anxiety

Social anxiety is one of many distinctive feature of substance dependants who tend to view themselves as: being chastised by others, they fear rejection and focus on internal representations of ‘self viewed by others’; they are vulnerable to the influence of dominating members of their social network [4,19], ‘fear of scrutiny in social situations’[14] and lack social skills, thus bringing much distress upon themselves [4]. Treatment for this group of people causes much challenge as the co-morbidity itself poses a major hindrance to treatment. This is because substance abusers who have an affective or anxiety disorder may not be diagnosed with mental illnesses unless they seek treatment for substance abuse disorders [8]. In 75% of cases, anxiety disorders predate substance use disorders [9]. Treating substance abuse alone does not help as substance abuse is ‘episodic and recurrent.’ [8]. Therefore treatment needs to be planned accordingly to treat the co-morbidity as well.

Relapse

Relapse is an obstacle in drug treatment [20] thus avoiding the relapse occurring is an important component in treating substance dependence. Marlatt and Gordon [21] explain relapse as “a violation with a single event on the basis of complete abstinence from the abuser’s drug of choice”. One of the main concerns with treatment programmes is the relapse rate and this was observed at the DRCs. The possible reasons for the staggeringly high relapse rates could be due to:

1. The single treatment modality [22] which emphasizes more on the problem and stigma of addiction.
2. The absence of support groups to enhance, strengthen emotional stability and to provide appropriate skills to live a drug free life which is the concept of psychosocial treatment for substance dependence.
3. Stigma created by the treatment caused by the punitive approach in treatment and social anxiety of the addicts.

Purpose and research questions

This review presents a systematic evaluation of the literature of psychosocial treatment programme for substance abusers. The researcher feels there is a need for a psychosocial treatment programme for substance abusers to reduce relapse and to manage social anxiety.

For the purpose of this study two questions were posed:
1. How do psychosocial treatments programmes impact relapse rates?
2. How do psychosocial treatment programmes impact relapses and reduce social anxiety?

There appears to be no psychosocial treatment programmes existing to prevent relapses and reduce social anxiety. For the purpose of this review, the researcher combined data from various studies for both the dependent variables (relapse prevention and social anxiety diminution) in psychosocial treatment programmes. The researcher noted further that in order to obtain representable data, it was necessary to review and combine various measures from a combination of studies. The process of excluding and including data as such may lead to losing crucial information [23].

Methods

A systematic and comprehensive search was conducted by using Econ Lit with EBSCOHost, ERIC, PsycARTICLES, PSYCCRITIQUES and PsycINFO. The computerized search was initiated on studies conducted in the English language for the period from 1995 to 2010. Initial findings revealed only three directly related articles for the last 10 years and extending the search to 1995 provided for a more concise pool of studies. To optimize results of the search, multiple search terminologies were applied with the application of Boolean operators.

The initial search items employed were “addiction” OR “substance” AND ‘treatment’, ‘substance’ AND ‘relapse prevention’, ‘substance’ OR (‘relapse’ AND ‘social anxiety’), ‘mental health’ OR ‘addiction’. An independent search was carried out as well with key terms such as ‘co-morbid disorders’, ‘co-existing’, ‘illnesses’, ‘addiction AND stress’ OR ‘addiction AND anxiety’. The search was then extended to MedlinePlus and PubMed with the application of similar search terminologies. The bibliographies of the selected articles identified were manually searched further for more relevant studies.

After numerous attempts, the final search items decided were: (substance abuse and psychosocial treatment) AND (addiction) and (relapse reduc* or social anxiety) not (smoking or adolescent or cigarette).

Inclusion Criteria

This is a specialized area of study and it was necessary to justify the search terminologies and narrow down the focus of the review. As all various forms of substance dependency (i.e. heroin, cocaine or marijuana) and its consequences are similar as defined in the Diagnostic and Statistical Manual of Mental Disorders [24], all forms of addictive substance were included [(substance abuse AND psychosocial treatment) AND (addiction)]. There was no integrated form of a psychosocial treatment programme, therefore, all various components of the psychosocial treatment programme: Group Motivational Interviewing [25], Supportive Expressive Dynamic Therapy [26], Psychosocial Treatment on Cocaine Addicts [27] or Group Drug Counselling [28] were identified manually from several individual articles. The influence of treatment programmes on the dependent variables, relapse prevention, (which is the core focus of all treatment programmes) and social anxiety [25,27,29]. Moos [30] were also established in various articles [(relapse reduc* OR social anxiety)]. The researcher noted that the studies identified did not contain an integrated psychosocial treatment programme incorporating both the dependant variables - relapse prevention and diminution of social anxiety.

Exclusion Criteria

In order to derive a comprehensive and substantive review, the components of the search are required to be specific. As there are numerous studies on substances abused, smoking, chewing tobacco and other forms of behavioural addictions were excluded [NOT (smoking OR adolescent OR cigarette)] from the search. To achieve better generalizability of the findings to specific population, the targeted population was only adults while adolescents/teenagers were excluded from the review. Although, psychosocial treatment programmes incorporate various other forms of treatment, it was important to exclude unrelated treatments (pharmacological treatment and various forms of focused therapy). Research questions for the purpose of this study included relapse rates and social anxiety reduction. Therefore, other variables (other forms of co-morbidity besides anxiety) were not given priority and excluded from the selected articles.

Results

After conducting an extensive coverage and a synthesized review of
the literature, 19 studies in regards to substance abuse and psychosocial treatment were shortlisted as the most relevant (Table 1). The abstracts and titles of each article were carefully evaluated in order to meet the inclusion and exclusion criteria. The researcher chose to examine the reference lists from various relevant published articles as well.

From the 19 studies, seven studies incorporating psychosocial treatment programmes were identified out of which only one comprised an integrated psychosocial treatment programme (Crits-Cristoph et al.) [27]. This form of integrated treatment not only focused on relapse reduction but also on other associated problems such as

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<th>Author/s</th>
<th>Type of treatment</th>
<th>Methodology</th>
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<tbody>
<tr>
<td>1. Abdullah [55]</td>
<td>Historical analysis</td>
<td>Historical analysis, literature review (Amphetamine-type stimulants (ATS))</td>
<td>Meaning of drug use has changed over time and context depending on socio political surroundings. Overwhelming societal concern that has created an ideology of drug use as a moral ‘problem’. [Drugs reported were limited to amphetamine-type stimulants (ATS)]</td>
</tr>
<tr>
<td>2. al’Absi and Mustafa [56]</td>
<td>Neurobiology of stress addiction and the psychosocial processes</td>
<td>Academic text with overlapping chapter reviews</td>
<td>Abusing drugs and experiences of stress act on similar areas in the brain and involve overlapping neuronal mechanisms</td>
</tr>
<tr>
<td>3. Ana et al. [25]</td>
<td>Group Motivational Interviewing (GMI) and Therapist Attention Activity Control Group (TAACG)</td>
<td>Quasi-experiment</td>
<td>Patients participated in GMI during inpatient treatment were more frequent in after care treatment and consumed less alcohol in follow up compared to attendees of TAACG</td>
</tr>
<tr>
<td>4. Avants et al. [4]</td>
<td>Socially anxious drug dependents in low intensity and high intensity psychosocial treatment programmes (with cocaine).</td>
<td>Quasi –experiment</td>
<td>Socially anxious methadone maintained (treatment for cocaine social-consumption) patients who stay clean in treatment manage to be abstinent post treatment longer when in low intensity treatment programmes. They also display less HIV risk taking behaviours.</td>
</tr>
<tr>
<td>5. Barber et al. [26]</td>
<td>Supportive Expressive Dynamic Therapy (SET) and Individual Drug Counselling (IDC) (with cocaine)</td>
<td>Quasi-experiment</td>
<td>SET and high levels of IDC had less predicted drug use compared to SET alone. Straightforward dug counselling is better predictor of outcome compared to making addicts understand the cause of dependency.</td>
</tr>
<tr>
<td>6. Book et al. [14]</td>
<td>Social anxiety and participation in group setting treatment</td>
<td>Experiment</td>
<td>Socially anxious substance abusers are less willing to attend self help groups, present with more psychopathology then non-socially anxious substance abusers</td>
</tr>
<tr>
<td>7. Chong and Lopez [41]</td>
<td>Social network, family, peer support and psychosocial functioning</td>
<td>Correlational study</td>
<td>Social support and family involvement during treatment influences outcome of treatment to improved psychosocial functioning</td>
</tr>
<tr>
<td>8. Crits-Cristoph et al. [27]</td>
<td>Psychosocial treatment with Cognitive Behavioral Therapy (CBT), Supportive Expressive Therapy (SET), Individual Drug counseling (IDC) and Group Drug Counselling (GDC) on psychosocial and other addiction associated problems (with cocaine)</td>
<td>Quasi-experiment</td>
<td>No significant differences between psychiatric symptoms, employment, medical, legal, family, social, interpersonal or alcohol consumption problems. Efficacy of IDC does not extend to treatment of other associated addiction –related issues.</td>
</tr>
<tr>
<td>9. Crits-Cristoph et al. [29]</td>
<td>Psychosocial treatment - 12 step philosophy as mediator of outcome with IDC+ GDC and CBT as mediator of outcome with IDC+GDC (with cocaine)</td>
<td>Quasi-experiment</td>
<td>12 step beliefs incorporated with IDC+GDCc produces better treatment outcome compared to CBT with IDC+GDC</td>
</tr>
<tr>
<td>10. Crits-Cristoph et al. [34]</td>
<td>Supportive Expressive Dynamic Therapy (SET) and Individual Drug Counselling (IDC)</td>
<td>Quasi-experiment</td>
<td>SET and high levels of IDC had less predicted drug use compared to SET alone.</td>
</tr>
<tr>
<td>11. False-Stewart and Bate [57]</td>
<td>Neuropsychological tests on participants from Outpatient Treatment Programme and the Therapeutic Community</td>
<td>Quasi-experiment</td>
<td>Education, years of alcohol use, number of substance use dependence disorders, percentage of days of heavy drinking in previous year, depression, familial alcoholism, pre-morbid level of cognitive functioning, liver functioning and previous head injuries identified as risk factors for latent cognitive abilities.</td>
</tr>
<tr>
<td>12. Hesse [23]</td>
<td>Systematic search of MedLine and PsychInfo</td>
<td>Review</td>
<td>Psychotherapeutic treatment for co-morbid depression and substance abuse though promising does not have empirical support as of yet. Treatment of co-morbid anxiety and substance abuse is not supported empirically either.</td>
</tr>
<tr>
<td>13. Lash et al. [58]</td>
<td>Contracts, attendance, prompts and reinforcements (CPR) &amp; Standard treatment (STX)</td>
<td>Comparison study</td>
<td>CPR appears to be more effective in treatment adherence compared to STX</td>
</tr>
<tr>
<td>14. Lemieux [31]</td>
<td>Social support and familial support: DV-perception of available social support: IV-number of visits, letters, length of time in treatment and criminal history.</td>
<td>Correlational study</td>
<td>Social support was significantly associated with the IV’s. Substance abuse treatment should address environmental factors, social and familial support.</td>
</tr>
<tr>
<td>15. Lesner [59]</td>
<td>Review of addiction as a disease</td>
<td>Review</td>
<td>Addiction as a chronic relapsing disorder with behavioural and social context aspects. Treatment should incorporate biological, behavioural and social aspects.</td>
</tr>
<tr>
<td>16. Malhotra et al. [5]</td>
<td>Review of Psychosocial Treatments of Substance Use Disorders in Adolescents (with cocaine)</td>
<td>Review</td>
<td>Psychosocial treatment is effective in treating the addict and his/ her family as well.</td>
</tr>
<tr>
<td>18. Vuchinich et al. [50]</td>
<td>Behavioural day treatment, Abstinence- contingent housing &amp; Vocational Training</td>
<td>Correlational study</td>
<td>There is a strong relationship between in patient and follow-up abstinence, independent of the treatment setting</td>
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Table 1: Characteristics and contributions from the literature based on the type of treatment and methodology employed.
family-social, legal, medical, interpersonal and psychiatric problems as well. One study reported the results of the impact of social anxiety in a group treatment setting from an experiment, two studies discussed the neurobiology of addiction, stress and anxiety, there were seven reviews of substance abuse treatment out of which one was particularly on psychosocial treatments and provided a good reference point for the purpose of this study as well, one study on the significance of addressing environmental factors, social and familial support in treatment, and a comparison study on Contracts, attendance, prompts and reinforcers (CPR) and Standard treatment (STX) (Table 1). There did not appear to be a comprehensive study reporting the effects of psychosocial treatments on both the dependent variables - relapse prevention and diminution in social anxiety. There was only one study that describes influence of familial, environmental and social variables in predicting relapses [31,32]. This study provided an insight on the psychological and social aspects influencing addictions and some of the psychosocial treatment possibilities. The most common methodologies adopted in these studies were: seven quasi experimental studies, seven reviews, three correlation studies, one experiment and one comparison study.

Description of the Studies

Avants et al. [4] in their quasi-experimental study identified 307 methadone-dependent patients (72% male and 28% female). After 12 weeks, it was found that socially anxious patients undergoing the less intensive psychosocial treatment programme were drug free longer compared to patients undergoing the more intensive programme. The paper did not appear to provide a specified procedure to diagnose social phobia, while the effects of individual and group drug counseling (GDC) along with its cost effectiveness were not proven [4,33]. It is observed that this is the only psychosocial treatment programme which discusses the effects of social anxiety on substance abusers.

The commonly cited studies by Crits-Christoph et al. [27,29,34] discuss cocaine abuse and psychosocial treatments. Crits-Christoph et al. [35] conducted a study with data obtained from a research conducted by the National Institute on Drug Abuse and Collaborative Cocaine Treatment Study [27]. It was a six month quasi-experimental study as an active stage followed with three months of a booster to the initial treatment. 487 cocaine dependents were assigned to cognitive-therapy, supportive expressive therapy, individual plus group drug counselling (GDC) along with its cost effectiveness were not proven [4,33]. It is observed that this is the only psychosocial treatment programme which compared to patients undergoing the more intensive programme. The paper did not appear to provide a specified procedure to diagnose social phobia, while the effects of individual and group drug counseling (GDC) along with its cost effectiveness were not proven [4,33]. It is observed that this is the only psychosocial treatment programme which discusses the effects of social anxiety on substance abusers.

The results revealed that one out of three substance abusers enrolled in IOPs may have current social anxiety disorder. These abusers are less likely to participate in self help groups due to their shyness [14]. McKellar et al. [40] reported that participation in Alcoholic Anonymous and Narcotic Anonymous self-help groups in treating substance abuse, is highly correlated with positive clinical outcomes [14]. The Alcoholic and Narcotic Anonymous self-help groups consist of people in recovery from their drug of choice meeting to discuss their commonalities in battling substance dependency. This self-help programme is based on the 12-step model of treatment. The data was obtained from an original study by National Institute on Drug Abuse Collaborative Cocaine Treatment Study [34,35]. It is a concern that repeated analysis of the similar data may raise questions of reliability and validity.

Barber et al. [26] further examined 108 cocaine dependents who participated in a quasi-experiment with Supportive Expressive Dynamic Therapy. The results revealed that low levels of adherence by therapists to SET predicted better treatment outcome. This could mean that therapists’ individual characteristics and flexible theoretical approaches in counselling are better in influencing treatment outcomes compared to SET. A second finding was consistent with Barber et al. [26] that an integrated approach with IDC and SET reduces drug use. The study was unable to prove causality due to the small sample size and it was limited to only cocaine dependents.

Book et al. [14] conducted an experiment with a social anxiety group (N = 38, 27 women) and a control group (N = 65, 46 women). Their primary drug of choice was either alcohol or cocaine. Subjects were recruited from intensive outpatient treatment programmes (IOPs) between the 14th and 28th day of treatment. This was to avoid the influence of the physical withdrawal effects subjects would have experienced in early remission from the substance. The results revealed that one out of three substance abusers enrolled in IOPs may have current social anxiety disorder. These abusers are less likely to participate in self help groups due to their shyness [14]. McKellar et al. [40] reported that participation in Alcoholic Anonymous and Narcotic Anonymous self-help groups in treating substance abuse, is highly correlated with positive clinical outcomes [14]. The Alcoholic and Narcotic Anonymous self-help groups consist of people in recovery from their drug of choice meeting to discuss their commonalities in battling substance dependency. This self-help programme is based on the 12-step model of treatment. The macro goal of the study by Book et al. [14] is to prove that social anxiety among substance abusers is an inhibitor in addiction treatment activities. For this purpose social anxiety was measured with only the attitudes of the participants. The ‘actual behavioural outcomes’ were not taken into consideration [14]. The author infers further that sample size is another concern in generalizing results of the study.

A correlational study of psychosocial functioning with 159 American Indian women by Chong and Lopez [41] identified the relationship between social networks and social support to psychosocial functioning. Lemieux [31] reported in another study on 101 incarcerated substance abusers on social support and stressed the need for family and social support as social support to substance abusers is inversely related to criminal activity [32,42]. The author argues that although both studies reveal the need for social support to enhance psychosocial functioning, both studies were carried out with...
diverse populations. The results of the studies can only be generalized to the particular population and treatment setting.

Further Refined Manual Search

The researcher conducted a systematic and detailed review of the selected studies through bibliographical trails and identified nine studies particularly on psychosocial treatment programmes and all its components treating social anxiety reduction and relapse prevention (Table 2). There appeared to be only one integrated psychosocial treatment programme [29] and one experiment (Book et al.) [14] conducted during the period from 1995 to 2010. All the studies were observed to have incorporated various measurement tools to analyze the dependant variables (Table 2).

Assessment Tools

The following measurement tools (Table 2) were applied for the purpose of the studies: (i) the Addiction Severity Index (ASI) [43] in five of the studies [4,26,29,34,41] (ii) the Hamilton Rating Scale for Depression (HRSD) in three studies [27,29,34], (iii) Beck Anxiety Inventory (BAI) [44] in two studies [30,33], (iv) Beck Depression Inventory [45] in three studies ([4,14,27]) and (v) the California Psychological Inventory (CPI) [46] in two studies [29,34]. It was not possible to identify one standardized instrument tool which could measure both the variables discussed- social anxiety and relapses.

Participants

Only one experiment was observed to have been conducted on social anxiety [14]. The longitudinal study conducted by Crits-Cristoph et al. [27,29,34,35] with data obtained from a research conducted by the National Institute on Drug Abuse and Collaborative Cocaine Treatment Study, appeared to have the most number of participants (N = 487 cocaine dependents). The data gathered in 1999 was analyzed and published over a period of time.

Avants et al. [4] in their quasi-experiment analyzed data gathered from 307 substance abusers (randomly assigned to the treatment group) on methadone maintenance for cocaine dependency. Five other studies conducted had small sample size of only 101-159, with three of them randomly assigned to the treatment groups [26,27,32], one consisted of voluntary participation [41] and another reported results of a study with 101 participants from three intensive outpatient programmes [14]. The remaining three quasi-experiments had 408 randomly assigned

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<th>Sample size/Sampling type</th>
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<tr>
<td>Ana et al. [25]</td>
<td>Quasi experiment – GMI and TAAC</td>
<td>101-random assignment</td>
<td>1.Brief symptom Inventory 18 (baseline data) 2.Number of days in out–patient treatment, 12 step meetings and visits by mental health professionals (3 month follow up)</td>
</tr>
<tr>
<td>Chong and Lopez [41]</td>
<td>Correlational Study – Relationship of social networks and social support to psychosocial functioning</td>
<td>159 substance dependent – voluntary participation</td>
<td>1. Texas Christian University Intake Questionnaire (TCU-IQ) 2. Client Evaluation of Self and Treatment (TCU-EST) 3. Addiction Severity Index (ASI)</td>
</tr>
<tr>
<td>Crits-Cristoph et al. [27]</td>
<td>Quasi experiment –Psychosocial treatment programme</td>
<td>487 cocaine dependents-random assignment</td>
<td>1.Hamilton Rating Scale for Depression (HRSD) 2. Beck Depression Inventory (BDI) 3. Inventory Interpersonal Problems (IIP) 4. Brief Symptom Inventory Global Severity Index (BSI)</td>
</tr>
<tr>
<td>Crits-Cristoph et al. [34]</td>
<td>Quasi-experiment – Supportive Expressive Psychodynamic Therapy (SE) and IDC</td>
<td>487 cocaine dependent –random assignment</td>
<td>1.ASI 2. HRSD 3. BAI 4. Brief Symptom Inventory 5. CPI 6. Cocaine Craving Scale 7. ARS</td>
</tr>
<tr>
<td>Lemieux [31]</td>
<td>Correlational study – Social support among males and females in corrections-based substance abuse treatment programme (Cognitive behavioral therapy and drug education)</td>
<td>101 inmates - random assignment</td>
<td>1. 12-item Multidimensional scale of Perceived Social Support (MSPSS)</td>
</tr>
<tr>
<td>Book et al. [14]</td>
<td>Experiment – Socially anxious substance abusers willingness to participate in group treatment programmes as compared to non-sociably anxious abusers.</td>
<td>101 - 3 intensive outpatient treatment programmes. Treatment and control group</td>
<td>1. The Leibowitz social Anxiety Scale (LSAS) 2. BDI 3. The Penn State Worry Questionnaire</td>
</tr>
</tbody>
</table>

Table 2: Characteristics of nine psychosocial treatment studies based on the methods, sampling size and type and the measurements employed.
participants – one of the largest studies of psychosocial treatment programme for cocaine dependents [27,29,34,35].

**Research Gaps and Significance**

Hesse [23], based on a review of published literature, mentioned that there was currently a need to come up with treatment options for social anxiety and substance abuse disorders. Watkins et al. [8] further reiterated in their review of treatment recommendations for co-occurring disorders with substance abuse, that there appears to be poor evidence of treatment efficacy for patients with co-occurring disorders. This section looks at the research gaps and how this review has helped to address the gaps and add on to knowledge of the subject.

**Research Gaps**

Crits-Christoph et al. [27,29,34] discuss studies of psychosocial treatment programmes which have produced evidence for efficacy in treating mainly cocaine dependence [29,37,38]. Some limitations of the study were: generalizability of the study is questionable as the therapists selected were all trained and highly qualified; Crits-Christoph et al. [34] discuss the efficacy of supportive expressive therapy in psychosocial treatment but later mention that the inclusion/exclusion criteria of the participants limit generalizability only to non co-morbid participants; treatment was focused on cocaine dependents; while patients in the IDC+GDC group were reported to have attended more 12 step meetings [29,47] which could have acted as mediators of the treatment.

Crome [48] discusses the limitations of psychosocial perspective of treatment for the adult substance abusing patients but there is a gap in the study with other population. Hesse [23] in his systematic review revealed that the integrated psychosocial treatment programmes for substance abusers dual diagnosed with depression to have positive outcomes. He further mentions that the statistical significance of success was only obvious with percent days abstinent at follow up [23] other areas tested were not significant. Higgins et al. [49,50] discuss the outpatients’ abstinent from cocaine use during treatment as a strong predictor of abstinence during a 12 month follow-up of treatment but the results are limited to outpatients and those who are of stable socioeconomic [51].

Treatment programmes generally focus on substance use reduction and abstinence but more often not, other associated problems such as medical, legal, employment problems and thus co-morbidity complications which arise with dependency are ignored. Carroll et al. [51,52] in comparing relapse prevention and interpersonal psychotherapy reported that there was no significant improvement for legal, medical, employment, alcohol, family and social problems (Crits-Christoph et al. [27]). Psychosocial treatment programmes are capable to meet the needs of the population and are able treat not only the co-morbidity but also other variables that coexist with substance abuse.

Petry et al. [52,53] discuss the high relapse rates among substance abusers [54] but there appears to be a gap in the study of relapse rates in relation to social anxiety. This is particularly true especially in Singapore where there is a paucity of studies conducted on psychosocial treatment programmes for substance abusers. This review has revealed the lack of empirical evidences in treating substance abusers for co-morbidity and whatever evidence that does exist is specific to a particular drug or treatment setting. There appears to be an obvious gap in the literature for psychosocial treatment programmes that treat social anxiety and relapse prevention as dependent variables.

**Future Research Areas**

There is a constant changing conceptualization of the substance abuse problem and its relation to clients with co-morbid disorders. Many studies and reviews have provided evidence that the relapse rates for this group of abusers as higher and long term prognosis poorer [55]. Anxiety disorders are particularly noted to be highly related to substance dependence (odds ratio [OR] = 3.0-6.0) impacting the outcome of treatment for this form of co-morbidity [9]. There is a need for an integrated form of treatment in order to meet the demands of "...the mutual maintenance pattern." of this dual disorders [9]. There is a continuous risk of relapse occurring for substance abusers suffering either from the substance abuse disorder or the co-morbid disorder and treatment have to be for long-term, meeting all the psychosocial needs.

It is the researcher’s understanding as evidenced from this review that Singapore lacks a locally derived psychosocial treatment programme which would meet the demands of substance abusers diagnosed with co-morbidity. This review has provided sufficient evidence for the need to derive a psychosocial treatment programme which is generalizable to population of various ages, culture, and religion particularly within the local Singapore context.

This paper is intended to build on the current understanding and to fill the gaps in the literature of psychosocial treatment for substance dependency in relation to relapse prevention and social anxiety reduction. More trials which can replicate the findings of the existing research are necessary to achieve an optimized and integrated treatment programme for substance abusers to prevent relapses and to reduce social anxiety.

**References**


