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Role of psychotherapy in alcohol use disorders-a review

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Abstract
Alcohol use disorders (AUD) remain one of the leading causes of mortality and morbidity across the world. It interferes with a person's daily life and has multiple social and behavioral consequences. Alcohol addiction impacts each person in their own way; therefore, treatment is specific to each individual. Some of the most commonly used therapies for alcohol addiction treatment are behavioral therapies. The aim of this study is to overview the role of psychotherapy in the management of AUD. Behavioral therapy serves to help a person change the way they act, often by modifying the way they think. Negative actions often stem from maladaptive thoughts. Importance of Psychotherapies such as Cognitive Behavior Therapy (CBT), Motivation Enhancement Therapy (MET), Contingency Management, Aversion Therapy, Relapse Prevention and Dialectical Behavior Therapy (DBT) are discussed in this paper. Many of these therapeutic regimens offers a better solution to AUD are delineated in this review paper.

Keywords: Cognitive Behavior Therapy (CBT), Motivation Enhancement Therapy (MET), Contingency Management, Aversion Therapy, Relapse Prevention and Dialectical Behavior Therapy (DBT)

Introduction

In India alcohol consumption tends to be a major problem because most of the individuals, families and health care communities are struggling to cope with alcohol use disorders. It has devastating effects, disrupt the future plans of many young people, and ends lives prematurely and tragically [1]. According to recent data published by the World Health Organization (WHO), the total per capita consumption of alcohol by individuals above 15 years of age is 6.2 L of pure alcohol per year, which equals 13.5 g of pure alcohol per day. However, there is a wide variation between the WHO regions and member states. Nearly 5.1% of the global burden of disease is attributable to alcohol consumption, and it causes nearly 3.3 million deaths every year [2]. Alcohol Use Disorder (AUD) is a chronic relapsing brain disease, characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences [3]. The fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM–IV), published by the American Psychiatric Association, described two distinct disorders—alcohol abuse and alcohol dependence—with specific criteria for each. The fifth edition, DSM–V integrates the two DSM–IV disorders, alcohol abuse and alcohol dependence, into a single disorder called alcohol use disorder, or AUD, with mild, moderate, and severe subclassifications [3].The research studies bring out multiple reasons which lead to AUD. Some are beyond any degree of control, like genetics and family history. Others, such as environment, lifestyle, and mental health, however, these factors are what can be identified and worked on in a treatment program. The first stage of treatment works on removing the physical dependence that has developed on alcohol, a process known as detoxification. In this stage, the patient is admitted to a safe, controlled facility where they are weaned off alcohol, and often given anti-anxiety medications to help them through the process of their body withdrawing from the alcohol craving. An AUD patient will be ready for psychotherapy after detoxification is over [4]. Psychotherapy may be defined as the treatment of emotional and personality problems and disorders by Psychological means (Kolb, 1968). According to Wolberg (1967) "psychotherapy is the treatment, by psychological means, of problems of an emotional nature in which a trained person deliberately establishes a professional relationship with the patient with the aim a) of removing, modifying or retarding existing symptoms, b) of mediating disturbed patterns of behaviour and c) of promoting positive personality growth and development"[5]. Psychotherapy provides a safe space for the patient to break free from the physical craving of alcohol. It offers a controlled, nonjudgmental environment where the patient can talk about the issues and problems they have. Talking through these problems is the heart of psychotherapy; even if a patient is able to overcome their physical need for alcohol, they still have a deep void in their psyche that attempted to fill by drinking [6]. Common forms of therapies used to treat alcoholism are outlined below.

Individual counseling is focused on developing effective coping strategies and life skills. Individual counseling has been extensively studied in many specialty care settings but rarely within non-specialty settings. Most studies support the use of individual counseling as an effective intervention for individuals with substance use disorders. As indicated above, group counseling is a standard part of most alcohol

use disorder treatments, but should be used only in conjunction with individual counseling or other forms of individual therapy [6].

Cognitive-Behavioral Therapy (CBT)

Cognitive behavior therapy (CBT) is based on the idea that feelings and behaviors are caused by a person's own thoughts, not on any external stimuli like persons, situations or events. According to cognitive behavior therapists, this helps to change how they feel and behave [7].

In the treatment of alcohol and drug dependence, the goal of CBT is to:

- Teach the person to recognize situations in which they are most likely to drink or use drugs.
- Avoid these circumstances as far as possible.
- Cope with other problems and behaviors which may lead to their alcohol use disorder [8].

The theoretical foundation for CBT is that AUD develop, in part, as a result of maladaptive behavior patterns and dysfunctional thoughts. CBT treatments involve techniques to modify such behaviors and improve coping skills by identification and modification of dysfunctional thinking. It is a short-term approach, usually involving 12 to 24 weekly individual sessions. These sessions typically explore the positive and negative consequences of alcohol use, and use self-monitoring as a mechanism to recognize cravings and situations leading to relapse. They also help the individual develop coping strategies. The self-monitoring and craving-recognition skills can be continued by the individual after treatment is over. CBT interventions are effective, and enhanced outcomes noted when it is combined with other behavioral and/or pharmacologic intervetions[6].CBT is effective in co-morbid mental health disorders, showing improved outcomes in both[9],[10].Supporting studies regarding the importance of CBT is described in Table 1.

Motivational Enhancement Therapy (MET)

Motivational enhancement therapy (MET) is a directive, person-centered approach to therapy that focuses on improving an individual's motivation to change. Those with self-destructive behaviors on health, family life, or social functioning may be ambivalent or poorly motivated to change such behaviors, despite acknowledging the negative impact [17]. It works by promoting empathy, developing patient awareness of the discrepancy between their goals and unhealthy behavior, avoiding argument and confrontation, addressing resistance, and supporting self-efficacy [18] to encourage motivation and change [19].

MET is based on principles of motivational psychology and is designed to produce rapid, internally motivated change. This treatment does not attempt to guide and train the client, step-by-step, through recovery. MET consists of four carefully planned and individualized treatment sessions. The first two focus on structured feedback from the initial assessment, future plans, and motivation for change. The final two sessions, at the midpoint and end of treatment, provide opportunities for the therapist to reinforce progress, encourage reassessment, and provide an objective perspective on the process of change.

MET is grounded in the Trans theoretical model of how people change addictive behaviors, with or without a formal treatment. In this model, individuals move through a series of stages of change as they progress in modifying problem behaviors. Each stage requires certain tasks to be accomplished, and certain processes to be used in order to achieve change. The stages are:

- Precontemplation (people not considering changing their problem behavior);
- Contemplation (entails the individuals beginning to consider both that they have a problem and the feasibility and costs of changing that behavior);
- Determination (the decision is made to take action and change);
- Action (the individual begins to modify the problem behavior; this stage normally continues for 3-6 months);
- Maintenance (sustained change);
- If these efforts fail, a Relapse occurs, after which the individual begins another cycle.

The MET approach addresses where a client currently is in the cycle of change, and assists the person in moving through the stages to a successful change which is sustained. The counselor highlights the discrepancy in client's understanding of current behavior and the desired goal. The desire and commitment for a change is emphasized. Intrinsic motivation is a necessary and sufficient in instigating a change [20, 21]. Modifications of this approach have been studied and found to yield positive substance use and treatment outcomes, such as with college student drinkers [22] and adolescent cannabis users [24].

Contingency Management

Contingency management is based on giving motivational incentives and tangible rewards to person who become abstinent from alcohol [29]. In this therapy, patients receive a voucher with monetary value that can be exchanged for food items, healthy recreational options (e.g., movies), or other sought such as (outdoor games)-after goods or services when they exhibit desired behavior such as drug-free urine tests or participation in treatment activities [30]. Clinical studies comparing voucher-based reinforcement to traditional treatment regimens have found that voucher-based reinforcement is associated with longer treatment engagement, longer periods of abstinence, and greater improvements in personal function. Positive findings are observed in persons with disorders who use of cocaine, alcohol, opioid, and methamphetamine [30]. Supporting studies regarding the importance of Contingency Management is described in Table 3.

Aversion Therapy

Aversion therapy uses various techniques and stimuli to weaken or eliminate undesirable responses [23]. Theoretically punishment is used to directly reduce the frequency of undesired behaviors through removal of a stimulus when undesirable response is elicited. The goal is to weaken the link between the controlling conditioned stimulus and undesired response. Aversion uses electrical shock; chemical (emetine causing nausea) and olfactory stimuli; valeric acid (smells like rotten eggs) or ammonia (which is pungent); covert sensitization by aversive imagery; and shame induction [23]. The ideal stimulus is one which permits rapid onset, prompt termination, controlled intensity, and quick recovery so that repeated trials may be administered in a brief time. Electric shock and noxious smells are readily controlled in these ways, but drugs are

not. Shock was widely applicable except for persons with heart conditions. For this reasons, drugs were replaced as the principal aversion technique from 1970's.More recently, covert sensitization has become preferred [23]. Supporting studies regarding the importance of Aversion Therapy is described in Table 4.

Relapse Prevention

Relapse prevention (RP) is a cognitive-behavioural approach with the goal of identifying and addressing high-risk situations for relapse and assisting individuals in maintaining desired behavioural changes. RP has two specific aims:

- Preventing an initial lapse and maintaining abstinence or harm reduction treatment goals
- Providing lapse management if a lapse occurs so that further relapses can be prevented [37].

Relapse prevention is the cause most people seek treatment. By the time most individuals seek help, they have already tried to quit on their own and they are looking for a better solution. There are four main ideas in relapse prevention. First, relapse is a gradual process with distinct stages. The goal of this treatment is to help individuals recognize the early stages, in which the chances of success are greatest. Second, recovery is a process of personal growth with developmental milestones, with its own risks of relapse. Third, the main tools of relapse prevention are cognitive therapy and mind-body relaxation, which change negative thinking and develop healthy coping skills. Fourth, most relapses can be explained in terms of a few basic rules. Educating clients in these few rules can help them focus on what is important. The key to relapse prevention is to understand that relapse happens gradually. It begins within a week and sometime months before an individual picks up a drink or drug. The goal of treatment is to help individuals recognize the early warning signs of relapse and to develop coping skills to prevent relapse early. This has been shown to significantly reduce the risk of relapse [38]. Gorski has broken relapse into 11 phases [39]. This level of detail is helpful to clinicians but can sometimes be overwhelming to clients. Supporting studies regarding the importance of Relapse Prevention is described in Table 5.

Dialectical Behavior Therapy (DBT)

Dialectical Behavior Therapy (DBT) is a form of therapy, originally developed by Marsha Lineham, for the treatment of borderline personality disorder. DBT recently has been investigated as a treatment for substance disorders like alcoholism [42]. Borderline personality disorder is not uncommon amongst alcoholics, nor are many of the related traits like self-harm, depression, and suicidality[42].DBT is based on the premise that invalidating environments and genetics work together to develop these traits in individuals. Because of these factors, these individuals are more readily brought to a state of physiological arousal, a state which takes them longer than others to resolve. DBT attempts to give clients the skills they need to handle the stresses and strains of life [42]. Alcoholics, even those without co-morbidity of borderline personality, tend to be more emotionally erratic, using alcohol to cope. When alcohol (their sole coping mechanism) is taken away, they are to be trained with other coping strategies to deal with need fears, stress, anger, and other emotions they already have learned to avoid [43].

To guide the client through the process of relearning how to cope, the therapist will even communicate over the phone with the client, in-between sessions. And, rather than take the client out of stressful situations, the therapist will talk the client through them, increasing confidence in their new abilities. This form of therapy is promising in addressing the challenges Alcoholics face, when entering a life of sobriety [42].

In the quest for abstinence, the DBT dialectic takes the form of pushing for immediate and permanent cessation of drug abuse (i.e., change), while also inculcating the fact that a relapse, should it occur, does not mean that the patient or the therapy cannot achieve the desired result (i.e., acceptance). The dialectical approach therefore joins unrelenting insistence on total abstinence with nonjudgmental, problem-solving responses to relapse that include techniques to reduce the dangers of overdose, infection, and other adverse consequences[43].Supporting studies regarding the importance of Dialectical Behavior Therapy is described in Table 6.

Tables

Table 1: Review of Literature on CBT

SL. No	Authors	Conclusion
1	BucknerJD, Ledley DR, [11]	Notable decreases in social anxiety and alcohol-related problems (with continued gains at 6-month follow-up
2	IlmiJ.Literature Review: Cognitive Behavior Therapy for People with Alcohol Abuse. [12]	Internet-based CBT effective in reducing the severity or intensity of drinking alcohol.
3	Ray LA, Meredith LR, Kiluk BD, Walthers J, Carroll KM, Magill M. [13]	CBT alone not better than another evidence-based modality. Best practices should include pharmacotherapy plus CBT or another evidence-based therapy, rather than usual clinical management or nonspecific counseling services
4	Magill M, Ray L, Kiluk B, Hoadley A, Bernstein M, Tonigan JS, Carroll K. [14]	CBT is more effective than a no treatment, minimal treatment, or nonspecific treatment.
5	SundströmC, Kraepelien M, Eék N, Fahlke C, Kaldo V, Berman AH..[15]	Therapist-guided internet-based CBT feasible and effective for alcohol use disorders.
6	Vedel E, Emmelkamp PM, Schippers GM.[16]	Stand Alone BCT is as effective as CBT. More effective in relationship satisfaction. BCT and CBT deliverable in community treatment settings.

Table 2: Review of Literature on MET

Sl. No	Author	Conclusion
7	Ilgen MA, McKellar J, Moos R, Finney JW. [25]	A positive therapeutic relationship important for patients with low motivation. Mechanisms remain unknown.
8	Anton RF, Moak DH, Latham P, Waid LR, Myrick H, Voronin K, Thevos A, Wang W, Woolson R. [26]	MET can help treat addiction and a co-morbid mental health problems. Help relapse prevention in both.

9	Buckner JD, Ledley DR, Heimberg RG, Schmidt NB. [27]	Notable decreases in social anxiety and alcohol-related problems with continued gains at 6-month follow-up.
10	Sang Kyu Lee. [28]	Useful, particularly for AUD with poor compliance.

Table 3: Review of Literature on Contingency Management

SL.No	Author	Conclusion
11	Barnett NP, Tidey J, Murphy JG, Swift R, Colby SM. [31]	Efficacy for alcohol use reductions.
12	Petry NM, Martin B, Cooney JL, Kranzler HR. [32]	Support the efficacy of this CM procedure.
13	Adams, J. E. (1973). The Christian counselor's manual. Grand Rapids, MI: Baker. Emmelkamp, P. M. G. (1994). [33]	People who undergone Contingency management conditions had fewer drinking episodes and reduced frequencies of heavy drinking.

Table 4: Review of Literature on Aversion Therapy

Sl. No	Author	Conclusion
14	Anant SS. [34]	Complete cure in 33 %, good improvement in 23%, and mild improvement in 13%.
15	Elkins RL, Richards TL, Nielsen R, Repass R, Stahlbrandt H, Hoffman HG. [35]	Chemical aversion therapy reduce craving, their post-treatment fMRI brain scan showed significant reductions in alcohol cue-related brain activity in the occipital cortex
16	Cannon DS, Baker TB, Gino A, Nathan PE. [36]	Aversion therapy results in the following changes in response to alcoholics are decreased consumption in taste tests, more negative flavor ratings, overt behavioral indicants of aversion (e.g., grimacing), and increased tachycardic response

Table 5: Review of Literature on Relapse Prevention

Sl. No	Author	Conclusion
17	Hendershot CS, Witkiewitz K, George WH, Marlatt GA.[40]	Maladaptive behaviors are modified after the treatment.
18	Mc Crady BS, Epst ein EE, Kahler CW. [41]	After treatment better abstinence than treatment prior periods.

Table 6: Review of Literature on DBT

SL No.	Author	Conclusion
19	Koerner K, Linehan MM. [45]	DBT and its adaptation may also be effective for SUD patients with emotional dyscontrol
20	Park JH, Ju SJ, Kang GY. [46]	Significant effect on the viewpoint and interaction of the experiment group and the control group on depression. Abstinence self-efficacy showed a significant difference in the pre-post-follow up period.
21	Maffei C, Cavicchioli M, Movalli M, Cavallaro R, Fossati A.[47]	73.2% abstinent at the end of the program, and emotional regulation improved. Improvement was independent of the initial severity of both alcohol use and emotional dysregulation.

Conclusion

Through personal reflection and revealing of inner feelings and emotions, many people can achieve some benefit from psychotherapy. It may not be the solution for everyone, but the therapeutic nature of the treatment will likely help a client to overcome problems or issues. Psychotherapy can also be used in conjunction with other treatments such as drug therapy, which can significantly improve outcomes.

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