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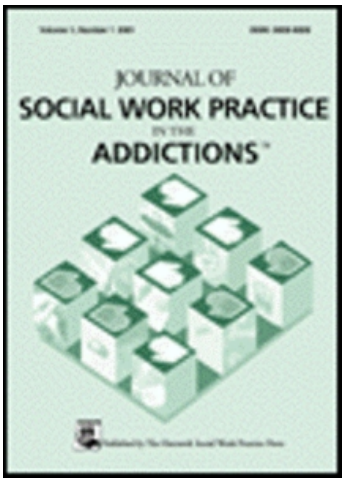

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ARTICLES

What is Relapse? A Contemporary Exploration of Treatment of Alcoholism

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In clinical settings, clients treated for alcohol abuse or dependency often engage with multiple service providers. Nonstandardized definitions for treatment outcome obscure treatment success. Using content analysis and preestablished selection criteria on a set of alcohol treatment outcome studies conducted between 1990 and 2006, we evaluated the definition of relapse using a typology derived from an interrater agreement analysis. The interrater agreement was good and the modal category indicated that a multifaceted operationalization was most often used to indicate success. Key to standardizing treatment success might be inclusion of multiple domains of life function in defining relapse.

KEYWORDS alcohol treatment, relapse, treatment outcomes

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The definition of success following treatment for alcoholism is not a subject of uniform agreement within the alcohol treatment community. For example, the term *relapse* was adopted from the medical field, where it is used to indicate a return to a disease state following a period of remission. That definition is a good fit when alcoholism is considered a disease, but holds more difficulty for other conceptual frameworks such as cognitive behavior, motivational, self-regulation, or harm reduction, all of which emphasize learned behavior as a key component in alcoholism.

The cognitive-behavioral approach to the treatment of alcoholism has traditionally emphasized abstinence as a primary objective. Because proponents of cognitive-behavioral therapy (CBT) view drinking behavior as learned, the focus is to help the client gain insight into the thoughts and feelings that led to the drinking behavior (Kadden, 2003). This modality includes a focus on functional analysis and skills training to help the person gain new coping skills that can be applied toward abstinence. Abstinence is the goal of treatment, but lack of abstinence does not necessarily indicate treatment failure, as long as the individual is learning the skills that result in a reduction in drinking.

Motivational approaches to the treatment of alcoholism amplify a client's ambivalence over the discrepancy between current circumstances and desired states, the risks and consequences of the drinking behavior, the attainability of the desired goal, the client's evaluation of the worth of changing the drinking behavior, and the client's ability to effect such change (Miller, 1998). Changing drinking behavior from a motivational perspective is not an all-or-nothing state change, but a dynamic process that is more accurately described by the stages of change model of Prochaska and DiClemente (1986). Posttreatment drinking from this perspective is viewed as an occasion for reevaluating current motivation and making alterations to the change strategy, not necessarily a return to the preintervention state.

Relapse prevention (Marlatt, 1998; Marlatt & Gordon, 1985) is increasingly viewed as a harm reduction approach. Although relapse prevention is focused on reducing drinking behavior, its proponents are cognizant that a reduction in drinking behavior is only a part of being abstinent, and therefore also take into account the consequences of the drinking behavior for the individual. Harm reduction interventions distinguish between a slip or lapse and a relapse. From this perspective, slips and lapses are one-time (slip) or brief reoccurrences (lapse) of drinking, whereas a relapse is viewed as a return to pretreatment levels of drinking (Dimeff & Marlatt, 1995). The distinction is conceptually important in that it allows slips and lapses to be viewed as mistakes from which the person can take the opportunity to correct future behaviors.

The use of different therapeutic approaches for the treatment of alcohol disorders will inevitably alter the definition of treatment outcomes. Furthermore, therapeutic approaches are sometimes used in combination, resulting in a more complex ascription of treatment outcome as success or failure. The definition traditionally applied by practitioners in the alcoholism treatment

field involves operationalizing treatment outcome as a dichotomous event—either the person was drinking or the person was abstinent (Miller, 1996). Clinical trials with extended follow-up assessment points (e.g., Anton et al., 2006; Project MATCH Research Group, 1996) suggest that a different perspective of outcome is warranted. For many individuals, posttreatment drinking is not marked by an abrupt switch from drinking to sustained abstinence. Instead, many people go through multiple fluctuations between drinking and abstinence prior to the emergence of either drinking or abstinence as the dominant posttreatment behavior pattern. The contemporary question concerning the use of the term *relapse* is how to accommodate what observation suggests is a dynamic state rather than the simple binary condition of drinking or abstinence.

Currently, a variety of operational definitions for measuring treatment outcome are found in the research literature. The behavioral literature in particular has moved toward evaluating outcome as a change in the addictive behavior (e.g., drinking). In the past it was common to measure posttreatment change in drinking status with subjective categories such as *improved, no change,* or *worse* (Sobell, Sobell, Connors, & Agrawal, 2003). The current use of the standard drink unit provides a common metric for assessing reliability, validity, sensitivity to change in drinking behavior, and the comparison of treatment effects across studies (Allen, 2003). In the United States, a standard drink is defined as 0.6 ounces (17.74 ml or 14 g) of pure ethanol (U.S. Department of Agriculture, 2005). The beverage size that conforms to a standard drink depends on the percentage of alcohol by volume, but the typical beverage sizes used are 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of liquor. In some studies, this definition of a standard drink is utilized, although in other cases it is not (Kerr, Greenfield, Tujague, & Brown, 2005).

Measuring drinking behavior in standard units permits a more precise assessment of change from pretreatment to posttreatment drinking along at least two dimensions: intensity (average number of standard drinks per drinking day) and frequency (on how many days in the period drinks were consumed). Using change in drinking behavior as the indicator of successful treatment, the term *relapse* can be used to evaluate pre- to posttreatment differences between intervention and control groups in the frequency and intensity of drinking. With a standard unit of measurement, consensus on treatment outcome measures becomes possible. For instance, a National Institute on Alcohol Abuse and Alcoholism expert panel has recommended that the percentage of heavy drinking days (per-day limits: six standard drinks for men and four standard drinks for women) be adopted as one common measure for all treatment outcome studies (Allen, 2003; Sobell et al., 2003).

In this article, the objective was to perform a content analysis of a sample of randomized clinical trials (RCTs) designed to address outcome of treatment for alcohol use. Although RCT designs vary in quality (Bangert-Drowns, Wells-Parker, & Chevillard, 1997), these designs do have the best probability of

representing the "state of the art" of operationalization of treatment success. We were interested in categorizing how researchers operationalize posttreatment drinking and whether the term *relapse* was a component of the operationalization. We anticipated that our results would provide an assessment of the degree to which active researchers agree on how to characterize relapse.

METHOD

Content Analysis

We used content analysis and preestablished selection criteria on alcohol treatment studies conducted between 1990 and 2006. Content analysis is a systematic method employed in the social sciences to analyze textual data. "Textual data are typically explored inductively using content analysis to generate categories and explanations" (Pope, Ziebland & Mays, 2000, p. 120). The aim of content analysis is to determine the substance of the communication on a particular subject (Neuendorf, 2002).

In this case, the definitions of relapse provided in various texts from the selected sample of articles were broken down into manageable segments and into exclusive categories on several levels of abstraction (i.e., sentences, words, and themes). These categories were used to derive codes that were assigned to the various definitions. We developed a structured codebook that, together with ATLAS.ti© (version 5.0; Muhr, 1994) as supportive software for textual data analysis, facilitated the content analysis (MacQueen, McLeklan, Kay, & Milstein, 1998; Patton, 2002).

Inclusion Criteria

Inclusion criteria were related to the objectives of adding to the knowledge on relapse. Because studies might use more than one approach in the treatment of alcohol disorders, the sample included studies that used the most common behavioral therapeutic approaches (Donovan et al., 1994) or their combination with pharmacotherapy. RCTs that included a posttreatment follow-up period of at least 6 months were identified. Shorter follow-up periods are less likely to be sufficient to assess nondrinking improvements that are sometimes used to evaluate treatment outcome because the maintenance of abstinence over time is an important component of some definitions of relapse (Tonigan, 2003). Finally, we wanted to give particular attention to the conceptual definition of relapse in the literature, and to the implications that various definitions of relapse might have on clients in recovery who are concurrently involved with multiple agencies.

No single review of the research literature can be comprehensive, and recognition of this limitation suggests a strategy that explicitly operationalizes how articles are chosen for review (Bangert-Drowns et al., 1997). To be selected, articles had to meet the following inclusion criteria: (a) English

language articles published from 1990 through 2006; (b) RCT designs; (c) inclusion of an extended follow-up period of at least 6 months; (d) intervention involving a CBT, 12-step program, or motivational enhancement approach in the treatment of alcoholism, the use of anticraving drugs to prevent relapse, or a combination of any of these therapeutic approaches; and (e) a specific definition of relapse, or from which a definition of relapse could be inferred based on the outcome measures utilized. Excluded from the sample were articles from books, animal trials, articles that referred to relapse in the context of illicit substance use or that linked alcohol relapse to smoking cessation, studies that considered relapse in relation to comorbidity of mental health issues, and studies that targeted individuals younger than 18 years old. Review articles were considered and provided useful references, but were not included in the sample because these did not provide the operational definitions of treatment outcome for the articles included the reviews. For this review we conducted (a) a search of electronic databases including PsycARTICLES, PsycINFO, Medline, Social Sciences Citation Index, and the Cochrane Library; and (b) a hand search through journals referenced in articles found through the electronic databases. Table 1 contains the search terms and the databases used to obtain the sample of articles reviewed and the number of "hits" obtained from each database using the specified search terms.

TABLE 1 Keywords and Databases Used to Systematically Search for Research Studies of Treatment for Alcohol Disorders

Search No.	Keywords	Psyc ARTICLES (via APAnet)	PsycINFO (via ProQuest)	Medline (via FirstSearch)	Social sciences citation index (from 1992–1996	Cochrane library
1	Alcoholism and relapse	2	80	1,214	86	21
2	Relapse or recurrence and alcoholism or drinking and treatment	0	656	880	6,699	721
3	Randomized clinical trial	0	2,215	29,023	1,269	12,513
4	Combined searches 2 and 3	0	20	118	66	0
5	Relapse and drinking	606	462	562	142	3
6	Addiction and alcohol	1	385	196	18	10
7	Substance abuse and alcohol	116	357	344	27	48
8	Combined treatment and relapse	76	41	861	4	6

Search Strategies

Abstracts for each hit from the electronic databases searched were carefully [reviewed. If an abstract suggested a definition of relapse, it was saved so that the entire article could be reviewed. Special attention was given to the authors' description of treatment outcome to establish whether the authors provided a criterion for relapse, even if they did not use the exact term. The results of every bibliographic database search were analyzed in the same fashion. When articles meeting the selection criteria were found, they were retrieved and stored in electronic format. This selection procedure yielded 36 articles that met all criteria. These articles formed the coding pool and were cataloged by authorship and year of publication.

Data Preparation

Three individuals read and rated each article (i.e., unit of analysis) on the following variables of interest: definition of relapse, the context in which the treatment approach for alcoholism was provided (e.g., hospital, correctional facility), theoretical framework, treatment duration and length of follow-up, and treatment approach utilized. We used ATLAS.ti at this point, loading the definitions from our sample as primary documents into hermeneutic units that could be used by independent coders. This step in the data management facilitated the management and retrieval of the primary documents and segments coded and codes assigned.

Prior to coding, categories were formed that were mutually exclusive. Each category contained a variant of the definition for relapse that comprised the operational or conceptual definitions provided by each article sampled. Ten categories were originally formed to serve as a basis for coding various definitions of relapse comprising our sample of articles. As the initial coding process began, certain categories were found to be problematic, in that there was some overlap between them. These were discussed among the authors and were either combined or redefined into seven categories.

Coding

Once the categories were defined, a structured codebook was developed. The codebook was used to guide the coding of the data used to calculate interrater reliability. The procedure was conducted following the guidelines from MacQueen et al. (1998), who recommended careful review of each segment of text and assigned code, with particular attention to the beginning and ending point of selected text. This would later prove useful when reconciling differences in category definitions among the three raters.

In a calibration process, two raters used the structured codebook to code each extracted segment of text using the categories shown in Table 2. The cali-

TABLE 2 Structured Codebook to Categorize Definitions of Relapse

Category	Code
Any drinking (not designated as heavy drinking) or time to first drink during treatment or after intake	1
Any drinking (not designated as heavy drinking) or time to first drink posttreatment or after a specified period of abstinence	2
Time to first heavy drinking during treatment or posttreatment (e.g., five or more drinks)	3
Specified quantity of alcohol consumption or frequency of consumption according to gender	4
Specified quantity or frequency of alcohol consumption on one or more given occasions within a specified period of time or length of drinking episode (not gender based)	5
Specified quantity or frequency or length of time of alcohol consumption (self-report), accompanied by negative consequences (problem drinking), including in-patient treatment or institutionalization	6
Includes facets of any of the following: quantity, frequency, negative outcomes, length of drinking episode, maintenance or increase in alcohol intake, but definition of relapse not clearly stipulated	7

bration revealed several items that had been overlooked: (a) Many selected definitions did not provide adequate context for the coder to make a decision about which code to assign it to; (b) a number of primary documents included in the sample did not meet the criteria for eligibility; and (c) one article in the sample had been entered twice. The refined categories and the coding scheme for the various definitions of relapse identified are delineated in Table 2.

The text segments selected from each article (i.e., definitions of relapse or treatment outcomes) were reviewed and issues were addressed to continue the coding process. In a validation process, three new raters then proceeded to code the articles using the codebook. Results provided data on the level of category assignment agreement among the three raters. A report was generated indicating the identity of each coder and the code each had assigned to each segment of text. This process included a review of the specificity and clarity of the relapse definitions in the sample. When discrepancies arose, the three raters discussed their rationale for assigning a given code and were able to come to 100% agreement on the codes assigned. As a result of this procedure, some codes were changed from the originally assigned code to Code 7, the code that indicates no specific definition of relapse. We then used the ATLAS.ti query tool and obtained an accessibility report as a means of establishing that every primary document within our sample had been reviewed and coded, so that we could proceed to a formal agreement analysis.

Agreement Analysis

When there are more than two rating categories, no one index clearly indicates agreement between raters. In our analysis there were three

raters and seven rating categories. We report the seven individual agreement statistics (kappa) along with an estimate of overall agreement, as suggested by Kraemer, Periyakoil, and Noda (2002). Agreement analysis was conducted using SAS statistical software (version 9.13, SAS Institute Inc.). The macro procedure MAGREE, which is based on algorithms presented in Fleiss and Paik (2003), was used to calculate a multiple rater kappa (κ) statistic for nominal rating categories. By convention, values of kappa exceeding .75 indicate excellent agreement above chance, values of kappa in the range of .74 to .40 indicate good agreement above chance, and values of kappa below .40 indicate poor agreement above chance levels (Fleiss, 1981; Landis & Koch, 1977).

RESULTS

Results of the agreement analysis for the development of the coding typology are given in Table 3. Agreement among the three raters taken category by category ranged from $\kappa = -.009$ for Category 3 to $\kappa = .882$ for Category 5. The overall level of agreement was $\kappa = .719$. However, Categories 3 ($\kappa = -.009$) and 6 ($\kappa = .394$) of the coding typology indicated less than acceptable agreement. As explained earlier, a post-hoc review of the articles by the coders successfully resolved the coding discrepancies found in Categories 3 and 6, as disagreements had to do with whether or not the extracted text segment was specific enough. All disagreements were resolved with 100% agreement, with several codes being changed to a 7, the code indicating no specific definition of relapse.

The definition of relapse in the reviewed studies differed in many respects, including objectives and the measures used to determine effectiveness of interventions. Moreover, the definition of relapse itself seems to have increased in complexity over the years.

The objectives of the reviewed studies ranged from testing of psychopharmacological agents ($n = 13$) to control craving for alcohol, to the use of Antabuse as aversive therapy (Hammarberg, Wennberg, Beck, & Franck, 2004; Landabaso et al., 1999; Namkoong, Lee, Lee, Choi, & Lee, 2003), to testing the use of various

TABLE 3 Interrater Reliability of Coding Process

Category code	Kappa	Standard error
1	.740	.096
2	.847	.096
3	−.009	.096
4	.802	.096
5	.882	.096
6	.394	.096
7	.639	.096
Overall	.719	.051

psychotherapies to change drinking behavior with the objective of reducing severity of marital problems or improving marital relationships (McCrady, Epstein, & Hirsch, 1999; O'Farrell, Choquette, Cutter, Brown, & McCourt, 1993).

Furthermore, the review of the articles revealed that a wide variety of measures were used to describe alcohol consumption. For example, alcohol consumption was defined by cumulative number of drinking days, number of days to first drink, or biomarkers of alcohol consumption (Anton et al., 1999; Guardia et al., 2002; Guardia et al., 2004; O'Malley, Jaffe, Rode, & Rounsaville, 1996). Also used as measures of alcohol consumption were blood tests (gamma glutamyl transferase; carbohydrate-deficient transferring; serum alanine aminotransferase), self-report of drinking, and measures of functioning (Alcohol Problems Questionnaire, Brief Symptom Inventory, Assessment of Warning-Signs of Relapse).

The most frequently used category to define relapse was Code 7 (n = 16). This code category encompasses definitions that acknowledge that multiple facets of an individual's life are affected by alcohol abuse and dependence, but no clear operational definition for relapse is provided. The number of times each category was used to define the definitions observed in each article, a sample quotation of the text used to evaluate the definition, and the reference for the articles under each category are presented in Table 4.

Our results indicate that the definitions of relapse found in articles published between 1990 and 1999 differed in comparison to the definitions found in articles published between 2000 and 2006. Table 5 shows how the definitions of relapse were categorized according to the decade in which each article was published.

DISCUSSION

The results of our work indicate a need for a comprehensive definition of relapse that prioritizes the needs of the substance-abusing client, the family, and society, while adhering to the ethical standards of social work. At the same time, how relapse is defined should be effective at meeting the objectives of other disciplines with which our clients are involved. Most needed is a multidisciplinary team to arrive at a broad, yet comprehensive definition of relapse that will permit constructive and just management of decisions that impact the lives of substance-abusing clients.

The concept of relapse remains elusive. Our findings indicate that the term, across different RCT studies fell most often in the "not clearly defined" category. Although it is often well defined within individual studies (e.g., Potgieter, Deckers, & Geerlings, 1999), what remains a problem, and is a concern of this work, is the array of definitions for relapse across the examined research. One possible reason for the persistent lack of uniformity among researchers endeavoring to treat alcoholism is that abstinence is often defined as a secondary outcome to reduced drinking and improved

TABLE 4 Frequency of Codes to Categorize Definitions of Relapse

Code	Categories for definitions of relapse	Frequency	Sample quotation and references
1	Any drinking (not designated as heavy drinking) or time to first drink during treatment or after intake	2	The outcome of a relapse crisis situation was categorized as abstinence or drinking (relapse) (Annis et al., 1998; O'Malley et al. 1996)
2	Any drinking (not designated as heavy drinking) or time to first drink posttreatment or after a specified period of abstinence	2	The primary dependent variable is the occurrence of any drinking during the follow-up year (Bennett et al., 2005; Pagano et al., 2004)
3	Time to first heavy drinking during treatment or posttreatment (e.g., five or more drinks)	0	
4	Specified quantity of alcohol consumption or frequency of consumption according to gender	9	Time to first heavy drinking day (five standard drinksper day for men, four for women) during the 16-week treatment period (Anton et al., 2006; Burtscheidt et al., 2001; Burtscheidt et al., 2002; Chick et al., 2000; Guardia et al., 2002; Guardia et al., 2004; Mason et al., 1999; Namkoong et al., 2003; Thevos et al., 2000)
5	Specified quantity and or frequency of alcohol consumption on one or more given occasions within a specified period of time or length of drinking episode (not gender based)	7	Alcohol relapse that was defined as having five or more standard drinks on two consecutive days at some time during the study (Anton et al., 1996; Gual et al., 2003; Hammarberg et al., 2004; Landabaso et al., 1999; Naranjo et al., 1997; Reid et al., 2005; Schade et al., 2005)
6	Specified quantity or frequency or length of time of alcohol consumption (self-report), accompanied by negative consequences (problem drinking), including in-patient treatment or institutionalization	1	A relapse was defined as consumption of at least 60 g of pure ethanol per occasion or a hospitalization because of alcohol drinking (Wetzel et al., 2004)

(*Continued*)

TABLE 4 (*Continued*)

Code	Categories for definitions of relapse	Frequency	Sample quotation and references
7	Includes facets of any of the following: quantity, frequency, negative outcomes, length of drinking episode, maintenance or increase in alcohol intake, but definition of relapse not clearly stipulated	16	Three distinct mixed-model analyses provided hypothesis tests with restricted maximum likelihood parameter estimates for the effects of group (prevention and control) and time (baseline and 1-, 2-, 3-, and 4-year follow-up) on the three major outcome factor scores: frequency, quantity, and negative consequences (Baer et al., 2001; Balldin et al., 2003; Borsari & Carey, 2005; Fals-Stewart et al., 2005; Fals-Stewart et al., 2006; Feeney et al., 2006)

TABLE 5 Frequency of Categories for Definition of Relapse in Research Studies by Date of Publication

Categories for definitions of relapse	Frequency observed for each category Date of publication	
	1990–1999	2000–present
Any drinking postadmission	1	0
Any drinking posttreatment	0	2
Heavy drinking during or posttreatment	0	0
Specific quantity and frequency of alcohol consumption by gender	1	8
Specific quantity and frequency of alcohol consumption	3	4
Specified quantity and frequency + alcohol-related problems	0	1
Not clearly defined: Combination of alcohol consumption + related problems; that is, score on measures of mental health and alcohol consumption (frequency + quantity)	4	12

social situations (Schade et al., 2005). However, clients in treatment might also be involved with the judicial system, which requires negative blood alcohol tests as a measure of client compliance.

The use of sex differences as a factor in defining relapse was more common in studies that were published after the year 2000. These are studies that have contributed to the understanding of blood alcohol concentration in relation to body fat composition. Women have higher body fat mass than men, so blood alcohol concentration in women will generally be higher than in men who consume comparable quantities of alcohol (Lucey,

Hill, Young, Demo-Dananberg, & Beresford, 1999). However, the various measures of relapse according to sex differences suggest that males and females involved with different systems might experience inequitable consequences for similar drinking behaviors.

The majority of the definitions of relapse reviewed considered a specific intensity and frequency of alcohol consumption to categorize an individual as relapsed as opposed to a simple drinking versus abstinence dichotomy. Although several of the studies in our sample used measures such as the Addiction Severity Index to tap into social, mental health, and familial problems that frequently occur in alcoholism (McLellan, Luborsky, O'Brien, Barr, & Evans, 1984), treatment outcomes were more commonly measured by a reduction in drinking or specific time frame for drinking to reoccur without accounting for other alcohol-related problems or for gains in treatment reflected by changes in life functioning. Other studies focused on a specific alcohol-related problem, such as marital discord, as their main treatment outcome (O'Farrell, Choquette, & Cutter, 1998).

Although the literature reviewed here focused only on RCT designs for the treatment of alcoholism, researchers in the alcohol abuse field are deriving different ways in which relapse can be examined. For example, recent studies propose statistical definitions of relapse that examine the posttreatment pattern of deviation from abstinence. These approaches produce analyses that weigh the probability that posttreatment drinking will lead to persistent abstinence against the probability that drinking episodes signify sustained relapse to drinking (Alemi, Haack, & Nemes, 2004; Wang, Winchell, McCormick, Nevius, & O'Neill, 2002). This approach is consistent with theories of behavior change such as the transtheoretical model of change (Prochaska & DiClemente, 1982), in which individuals are expected to go through different stages of change before ultimately achieving maintenance of a new desired behavior (e.g., abstinence).

Problem drinking or unhealthy alcohol use can occur following treatment in individuals who do not meet the criteria for alcohol abuse or dependence (Saitz, 2005). Hence, alcohol-related problems can be considered a marker of unhealthy alcohol use during the recovery process, and not necessarily as a relapse. In fact, an expanded definition of relapse that considers the number of substances used at baseline in conjunction with psychosocial outcomes of posttreatment drinking was recently recommended for adolescents (Maisto, Martin, Pollock, Cornelius, & Chung, 2002). Such a definition would draw a fine line between problem drinkers and nonproblem drinkers at intake, but would not address the cross-disciplinary concerns impacting clients who have completed treatment. For the daily pragmatics of the clinical arena, the lack of a commonly accepted definition of treatment success presents difficulties for clients who might be concurrently involved with health, legal, (i.e., court, parole), and social service agencies. For example, in liver transplant cases, determining whether observed drinking episodes indicate a return to uncontrolled drinking is of critical importance. The elusiveness of a commonly accepted definition of

drinking relapse forces decisions to be made on the basis, and limitations, of clinical judgment (Fuller, 1997).

Developing a standardized definition of relapse involves the recognition that the multifaceted nature of alcoholism probably requires a multidisciplinary approach. Supporting infrastructure is required to implement a multidisciplinary approach. One suggested approach (Alemi et al., 2004) would be to make use of the existing PACTS Substance Abuse Treatment Module of the Administrative Office of the United States Courts (Federal Corrections and Supervision Division, 1998) to monitor court-by-court urine screening of clients. This centralized national network would provide the infrastructure that could support an expansion of the current effort to include a multidisciplinary approach to decisions concerning relapse at the federal level.

Because most states have organized their legal and social services by districts, one suggestion would be to establish a Central Assessment Center (CAC) in each district. Each CAC could include a member from the various disciplines with which clients are involved (i.e., law enforcement officials, physicians, psychiatrists, and social workers). Within this proposed framework, if there is an identifiable failure to significantly reduce the intensity and frequency of drinking, an active risk of negative consequences, and no improvement in the quality of life, a relapse is indicated.

Because these results indicate that the category for an unspecified definition was the most frequent, and because alcohol abuse or dependency is only one aspect of a person's life functioning, the members of the CAC should form an interdisciplinary team that would evaluate if a person relapsed on a case-by-case basis, ascertained by the individual's level of functioning across several areas. For a person to be defined as abusing or as dependent on alcohol (or any other substance for that matter), one should focus on the impact of such use on his or her life functioning. Consider a mother who was court mandated to attend parenting classes, who completes the classes but continues to drink alcohol on a daily basis, and who forgets to feed her baby on occasion. The CAC would classify this woman as relapsed because although she successfully completed the parenting classes, her level of functioning as a parent remains impaired. Likewise, one way to look at treatment success is if the person demonstrates an expansion of activity for life functions that have been neglected during the addictive period. Then, the question becomes how much expansion, and in what areas. There might be an advantage to this approach in that the different professions involved might find it easier to identify what they expect for treatment success.

Standardized measures can be used to assess an individual's level of functioning. The Global Assessment of Functioning (GAF) scale provides an overall assessment of a person's level of functioning on a scale from 1 to 100. Although the GAF is a widely used tool used to assess functioning, it does not take into account health-related issues such as alcohol consumption (American Psychiatric Association, 2000). Because we are interested in

assessing those individuals with substance abuse problems, it is important to use a tool that takes this behavior into consideration.

The Health and Daily Living Form (HDL) is a more comprehensive tool with several indexes that measure health-related, social, and family functioning, as well as life change events. Each index in the HDL targets specific issues such as drinking problems, self-confidence, social activities, home environment, and other events that occur in a person's life that might have a positive or negative effect on his or her level of functioning (Moos, Cronkite, & Finley, 1990).

Continued use of the term *relapse* in the clinical community cannot connote the overly simplistic abstinence–drinking dichotomy. The key to standardizing relapse lies in expanding the definition to include consideration of multiple domains of life function in addition to drinking. The proposed definition of relapse and the proposed framework for establishing what constitutes relapse are useful toward maximizing treatment outcomes for substance-abusing clients involved with multiple systems.

LIMITATIONS

Our results should not be taken as a representative sampling of alcohol treatment studies over the period of review. Although we explicitly identified our selection criteria a priori, it was beyond our available resources to identify a sampling frame from which to conduct a probability sample. We also limited selection to studies that used the most common behavioral therapeutic approaches, overlooking other legitimate therapeutic approaches to alcoholism treatment.

As mentioned earlier, inclusion of only RCT study designs is a limiting factor in that such studies, although quite rigorous in terms of factors affecting internal validity, are often limited in terms of the generalizability of the findings to social work service populations. For instance, the articles included in the study do not include a large proportion of minority participants in their samples. This not only indicates a need for future research in this area, but might also indicate that there could be different treatment approaches and processes among other populations that are not accounted for here. Our selection criteria excluded studies where illicit drugs or smoking cessation were part of the treatment. Even though the objective of the study was to examine the concept of relapse after alcohol treatment disorders, it is acknowledged that often alcohol consumption is accompanied by use of other substances.

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