

## THE PHENOMENON OF RELAPSE IN ALCOHOLISM: AN INTEGRATIVE REVIEW OF INTERNATIONAL SCIENTIFIC PUBLICATIONS (2004-2009)

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This review presents an overview of recent research on alcoholism in order to characterize the predominant types of research. From the Scopus database, searches were conducted using the keywords “relapse” and “alcohol”. The articles were classified according to the theoretical and methodological approach used. Quantitative studies are prevalent, however, in relation to the theoretical approach, the cognitive-behavioral, neurological and epidemiological approaches stand out, which indicates a predominance of the biomedical perspective. In this perspective are discussed both the limitations of the studies and the effectiveness of treatments which are based on them, reinforcing the need for greater investment in qualitative research and in the assimilation of the contribution of social sciences to the subject.

Descriptors: Alcoholism; Recurrence; Scientific and Technical Publications; Therapeutics.

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## **O FENÔMENO DA RECAÍDA NO ALCOOLISMO: UMA REVISÃO INTEGRATIVA DAS PUBLICAÇÕES CIENTÍFICAS INTERNACIONAIS (2004-2009)**

Esta revisão apresenta um panorama das pesquisas recentes sobre alcoolismo, a fim de caracterizar os tipos predominantes de pesquisa. A partir da base de dados Scopus, foram realizadas buscas com os descritores “relapse” (recaída) e “alcohol” (álcool). Os artigos foram classificados de acordo com a abordagem teórica e metodológica utilizada. Os estudos quantitativos são predominantes; todavia, no que se refere à abordagem teórica, as abordagens cognitivo-comportamentais, neurológicas e epidemiológicas se destacam, o que indica predominância da perspectiva biomédica. Nessa perspectiva, são discutidas tanto as limitações dos estudos quanto a eficácia dos tratamentos que nela se baseiam, reforçando a necessidade de maior investimento em estudos qualitativos e na assimilação da contribuição das ciências sociais para o assunto.

Descritores: Alcoolismo; Recidiva; Publicações Científicas e Técnicas; Terapêutica.

## **EL FENÓMENO DE LA RECAÍDA EN EL ALCOHOLISMO: UNA REVISIÓN INTEGRADORA DE LAS PUBLICACIONES CIENTÍFICAS INTERNACIONALES (2004-2009)**

Esta revisión presenta un panorama de las pesquisas recientes sobre alcoholismo, a fin de caracterizar los tipos de pesquisa que vienen predominando. A partir de la base de datos Scopus, fueron realizadas búsquedas con los descriptores “relapse” e “alcohol”. Los artículos fueron clasificados de acuerdo con el abordaje teórico y metodológico utilizado. Predominan los estudios cuantitativos y, en cuanto al abordaje teórico, se destacan la cognitiva-conductista, la neurológica y la epidemiológica, indicando una hegemonía de la perspectiva biomédica. Se discuten limitaciones de los estudios en esta perspectiva, así como la eficacia de los tratamientos en ella basados, reforzando la necesidad de invertir más en estudios cualitativos y en la asimilación de la contribución de las ciencias sociales al tema.

Descriptor: Alcoholismo; Recurrencia; Publicaciones Científicas y Técnicas; Terapéutica.

### **Introduction**

Given the complexity of the dependence and the various determinants of this phenomenon, the treatments are mainly based on the combination of psychotherapy and medications, and more recently, the mobilization of community resources for the control of behavior and social integration. Relapse is a major problem during any treatment and its prevention is the goal of several pharmacotherapies and psychotherapies. The occurrence

of relapses (frequency, intensity and duration) is also one of the main indicators used to assess the results of therapy.

This integrative review is part of a dissertation presented to the graduate program in psychology at the Federal University of Santa Catarina, entitled “The relationship between life projects and recurrence of relapse in alcohol-dependent patients.” The article presents an overview of recent research on alcohol dependence, especially with regard to the issue of relapse,

in international scientific journals of high impact. The literature review shows that the biomedical perspective and experimental methodology are prevalent in the study of the subject and the publication of research with other postures are just beginning, especially when it comes to the concept of integrity in health and the qualitative methodological approach. Also are discussed the results of the studies that evaluated the efficacy of various treatments aimed at abstinence and the current reflections on how to do research in this area, highlighting the importance of the contribution of social sciences to its advancement.

## Method

The literature review was carried out as follows: from the Scopus site, considered the largest database of reference scientific papers of the world; in the Publisher Campos/Elsevier the search was conducted by the descriptors “relapse” and “alcohol” in the fields “title”, “summary” and/or “keywords”, including articles published between 2004 and 2009. The results were initially ordered by periodical publications, excluding those not specialized in the subject of alcohol and drugs. Of the remainder were selected four periodical publications with the highest number of articles corresponding to the descriptors of the search and with greater impact, three of them being American journals and one of them an English journal. To make the sources more diverse, a Spanish periodical publication was also included. These five periodical publications therefore were chosen for analysis, aimed at fostering discussion about the latest when it comes to relapse in alcohol dependence. However, other periodical publications, mainly Brazilians, were used to discuss the matter.

Among the articles in these five periodical publications were selected only those who made reference to the issue of relapse in adult users of alcohol (or drug users in general, including alcohol). Articles with the following criteria were excluded: studies that did not cover the consumption of alcohol or who performed the approach of specific groups (e.g., adolescents, women, professionals of a given area), studies of relapse in another context that was not to psychoactive substance use (e.g., relapse referring to treatments for HIV and chronic diseases). 81 articles were studied in total from their resumes and, among them, 34 articles were fully analyzed.

For discussion of the data was used the content analysis<sup>(1)</sup>. Was conducted the encoding process of the contents obtained in the scientific articles, trying to find the similarities of the different concepts and arguments, grouping them into broad categories. Such categories have undergone a selection to see if they were *clear*, *meaningful*, *comprehensive* and *mutually exclusive*, resulting in the final standings.

## Results

The scientific articles analyzed were classified into broad categories according to: a) the theoretical approach adopted; b) the methodological approach; c) the type of research undertaken. From these procedures, the aim was to give an overview of what's latest in research involving the issue of relapse by chemically dependent on alcohol use, analyzing the main international periodical publications specialized in the subject and drawing a discussion with the scientific literature of the area.

Table 1 below shows the classification and distribution of articles for consulted periodical publications according its theoretical approach.

Tabela 1 - Distribution of articles for consulted periodical publications according theoretical approach

	Cognitive-behavioral	Neurological	Epidemiological	Other	Total
Publication 1	3	2	4	0	9
Publication 2	12	12	4	0	28
Publication 3	9	6	4	0	19
Publication 4	4	1	8	3	16
Publication 5	6	1	1	1	9
Total	34	22	21	4	81

Classification as “cognitive-behavioral” included evaluation studies of psychotherapeutic modalities based on this approach (briefly described below) and studies using concepts derived from cognitive or behavioral theories. Classification as “neurological” includes articles on brain function, drugs and experimental research on behavior (they also use behaviorism, but focus on the biological functions as determinants of behavior). Were included in “epidemiological” approaches articles with data whose predominant issue was the use and abuse of alcohol, rates of relapse/recovery in alcohol dependence

and sociodemographic data related to the matter in question.

Table 2 shows the distribution of articles in consulted periodical publications according to their methodological approach.

The situation shown in these tables is characterized by the hegemony of a quantitative approach to research on the phenomenon of relapse among alcohol users. The predominance is in the approaches on the biological and cognitive-behavioral aspects, overcoming the epidemiologies.

Tabela 2 - Distribution of articles in consulted periodical publications according to their methodological approach

	Quantitative	Qualitative	Not applicable	Total
Publication 1	9	0	0	9
Publication 2	28	0	0	28
Publication 3	18	0	1	19
Publication 4	13	2	1	16
Publication 5	7	1	1	9
Total	75	3	3	81

Only three studies of qualitative approach were observed, which can both indicate that this model of research is not valued by the most important scientific journals in the field and that this model is still little used by specialized researchers in this field, and these aspects may be influencing each other (specialized journals and scientific production).

Within this categorization three articles were not classified, since they were not exactly research, but review articles.

In a new classification, which still considered the methodological dimension, the articles were divided according to the types of research used, as shown below in Table 3.

Table 3 - Distribution of articles in consulted periodical publications according to the type of research

	Experimental	Efficacy of medicines	Efficacy of treatments	Other type	Total
Publication 1	3	2	0	4	9
Publication 2	14	6	4	4	28
Publication 3	1	3	7	8	19
Publication 4	0	1	4	11	16
Publication 5	0	0	4	5	9
Total	18	12	19	32	81

Other types of research were also observed, as: research on excess use of alcohol, about the findings of comorbidities, about the association between certain factors and alcoholism (risk of developing the problem, predictions of better or worse prognostics).

#### *Experimental research*

These are mostly from animal studies, whose aim was to reproduce in laboratory situations of the development of addictive behaviors, as well as situations of substance withdrawal (abstinence) after fixation of such behavior. These studies generally seek results that could theoretically be applied to understanding the mechanisms of addiction in humans.

Similarly, the experimental studies in humans have focused on examination of the brain, based on the "neurochemical reinforcement theory"<sup>(2)</sup>, in other words, the actual effect of alcohol in the brain represents the reinforcer stimulus that determines the search and consumption of alcohol. However, the fact that among many individuals who drink only a minority develops dependence or abuse indicates that other factors determine the difference between use, abuse and dependence.

Criticisms for experimental research reinforces that there are some inherent limitations to the method, created due to the artificiality of the situation in the laboratory. In experimental research focused on human behavior these

limitations are accentuated due to the complexity of the object, whose subjective aspects are too important and difficult to control. The degree of importance attached to these subjective aspects varies as the adopted theoretical-epistemological prospect, so that the discussion on the scope of experimental research can become immobilized in the confrontation between opponents and radical advocates. Besides the human-animal transposition, the lab-actual event transposition is also questioned due to the discrepancies between the findings of experimental studies and real clinical situations<sup>(3)</sup>.

#### *Research on the effectiveness of drugs*

In treatment with drugs, the expected effect is to reduce the risk of relapse episodes. Medications that act on neurotransmitters of the GABA system (acamprosate and topiramate) and opioid receptors (naltrexone) alter the neurochemical effect of alcohol. Theoretically, these drugs can reduce the desire for consumption and reduce the rewarding effects of alcohol, facilitating the maintenance of abstinence<sup>(4-5)</sup>. Moreover, there are studies on the use of other drugs that act on dopamine, serotonin and glutamate<sup>(6)</sup>.

Various psychiatric medications are also used to enhance the action of the drugs mentioned above and/or to control comorbidities or psychological symptoms that interfere with the maintenance of abstinence<sup>(7)</sup>.

Another medication used is disulfiram or “antietanol”, an inhibitor of aldehyde dehydrogenase, which leads to an increase of acetaldehyde and an intense malaise with hypotension, nausea, pain, vomiting or worse symptoms<sup>(6)</sup>. The expectation is that the patient take the medication every day and do not drink for fear of unpleasant reaction.

Research on the effectiveness of drugs presented heterogeneous results<sup>(4-5,8)</sup>. The results of drugs research can generally be summarized as disappointing<sup>(6)</sup>. Pharmacological treatments are supporting a process of change that will be effective in accordance with the decisions of the individual, and is recommended a combination of medication and psychotherapy or patient follow-up<sup>(7-9)</sup>.

#### *Effectiveness of psychotherapy and combination of therapies*

Psychotherapies mentioned by most of the articles are based on combinations of behavioral and cognitive principles (CBT). From a behavioral standpoint, it is intend to identify and modify factors of positive and negative reinforcement of behavior of search and consumption of alcohol, minimizing the first and strengthening the latter. For example, identify the environmental cues associated with the consumption and train responses of confrontation, or encourage the patient to seek other sources of pleasure or stress relief<sup>(10)</sup>.

The cognitive aspect prints a pedagogical character to therapy, considered a learning process in which the patient must gain clarity about the dysfunctional or misguided aspects of his beliefs and expectations, counting on the active guidance of the therapist to provide clarification. The goal is that the patient develops the ability to identify the triggering of automatic thoughts, as thoughts of failure or impotence, in order to avoid behavior that usually arise from them, such as abandonment of treatment or interruption of abstinence<sup>(11)</sup>.

The *Motivational interviewing*<sup>(12)</sup> also uses the skills training and relapse prevention strategies. However, their creators emphasize that is important to deal with the defense mechanisms of the individual, his resistance to change; and for that, they emphasize the importance of empathy, avoid confrontation and to present the difference between the situation desired by the patient and their current situation in order to get him to reflect on the reasons to change.

The cognitive-behavioral approach defines addiction as a situation of lack of control of the individual on his behavior (drinking), whose treatment depends on the decision to stop drinking and is based on modifying beliefs and expectations about drinking and to restructure the everyday, in mode to avoid or learn to deal with situations of risk of relapse.

As relapse is a phenomenon that occurs with about 70% to 90% of people in the first three months after initiation of treatment<sup>(13)</sup>, an intervention that does not provide its occurrence is inconsistent with reality, since, according to this conception, the individual would be penalized with a load of unnecessary frustration. This

can lead to consequences such as “effect of abstinence violation”<sup>(11)</sup>, in which the individual, considering relapse as a failure, abandons his treatment and return to the old habit. Thus, some authors distinguish between lapse, i.e., initial violation of abstinence and relapse itself, in which there is persistence of consumption<sup>(11)</sup>. However, the interruption of abstinence should be avoided, since it is assumed that the tendency of those who suffers a relapse is always to return to addiction.

The *COMBINE* study is a major study to assess the efficacy of combination therapies with cognitive behavior basis and the use of naltrexone and acamprosate<sup>(6,9,14)</sup>. The main results were considered disappointing: acamprosate has not proved more effectiveness than placebo; naltrexone and behavioral therapy showed a slight difference compared to placebo, and combinations of therapies do not have shown better results than the monotherapies<sup>(14)</sup>. Considering these results, it is possible to question the effectiveness of drug treatment<sup>(15)</sup>, although all present better results than psychotherapeutic approach without medication<sup>(14)</sup>.

Despite the indication of effectiveness, the *COMBINE* study provides no information about where it relies to assert that these changes are the result of evaluated specific interventions, rather than derived from factors related to the context of medical care, to the distribution of drugs or to the relationship between therapist and patient<sup>(15)</sup>. It is possible, therefore, that the variability among among therapists are more influential in the clinical than the variability of the treatments.

A similar discussion can be found regarding the psychotherapies. Two large studies have been conducted recently, in Europe, the *United Kingdom Alcohol Treatment Trial* (UKATT), and in U.S., the *MATCH Project* (*Matching Alcoholism Treatments to Client Heterogeneity*), the largest and most expensive study of its kind ever conducted<sup>(16)</sup>. They evaluated the results of different psychotherapeutic interventions. The UKATT compared the motivational interviewing and SBNT (*social behavior and network therapy*), while the MATCH Project compared the motivational interviewing, CBT and facilitation approach of 12 steps. There were no statistical or clinically significant differences between the results of the evaluated treatments, as well as were found no evidence of the supposed beneficial effect of matching the type of therapy to the patient type<sup>(16-18)</sup>.

Remained the argument that the results reinforced the idea that any kind of treatment would be better than none. Follow-up studies with recovering alcoholics found better results in patients who received treatment compared to those who quit drinking on their own<sup>(19)</sup>. Several studies relate the treatment adherence to the best results with regard to behavior change<sup>(9,20)</sup>. However, there are problems related to attribute these findings to the effect of psychotherapy, as well as define what were these “better results”.

For example, Cutler and Fishbain<sup>(17)</sup>, in a follow-up study with recovering alcoholics with and without

treatment, found very small correlations between receiving treatment and improvement in terms of abstinence and reducing consumption. The authors also draw attention to a possible “selection effect”, i.e., patients who continue to drink are more likely to abandon treatment, while patients who reduce their consumption are more likely to attend or remain in treatment.

Asking patients about their own recovery also raises doubts about the effectiveness of treatments, whereas patients refer to a variety of factors for relapse<sup>(13)</sup> and recovery<sup>(21)</sup>. The change is primarily attributable to the determination of the patient; the importance of treatment is mentioned, but because of the benefit that the patient perceives the cozy relationship with a therapist, where he feels comfortable to talk openly. Results that strengthen the argument in favor of greater importance of the therapeutic relationship than the applied technique<sup>(15)</sup>.

Without ignoring the progress that this type of research promotes, there are discussions about the need to change the way to produce studies in the area<sup>(22)</sup>. The main issues raised from the literature review are: 1) the limitations of experimental research on the behavior, 2) the controversial and modest results of studies on the effectiveness of medications and psychotherapies and 3) maintaining an understanding of the dependence focused on intraindividual factors and based on a biomedical definition of health.

#### *Treatment models and their epistemological differences*

The difference of interpretation of the results of studies on adherence and effectiveness of treatments illustrates the epistemological clash. The research starting from a biomedical perspective consider adherence to treatment as an intrinsic characteristic of the individual. On the other hand, when the adhesion is defined as an interindividual phenomenon rather than intraindividual, a question arises that, although appropriate, has been ignored in various studies on adhesion: what has the treatment (the care, the therapist) done about the lack of patient compliance?

Several problems hindered the adhesion, since trivial practicalities as inappropriate hours of care, dissatisfaction with the service and even unfavorable socioeconomic conditions<sup>(23)</sup>. Thus, the lack of adhesion to treatment may be due to the structure and functioning of services that offer treatment that does not consider the needs of who seek them<sup>(24)</sup>.

Studies of non-adhesion to treatment exemplify a problematic aspect of much of biomedical studies: the effect related to the sociocultural context and to the therapist-patient interaction are despised and the phenomena are explained only by factors intrinsic to the individual.

Treatments with this focus become distant from the reality of the individual, since it does not consider that many patients require other demands, similar or more urgent than abstinence as the requirements to get a job, get a house or to resolve family conflicts<sup>(23)</sup>. Thus, despite the recognition of the social, economic,

family and health (physical and mental) implications of alcoholism, treatments tend to keep the proposal of brief intervention focused on reducing consumption, based on the premise that everything in the life of the patient will improve when the consumption of alcoholic beverages is controlled<sup>(24)</sup>.

Social aspects are considered only in the dimension of environmental stimuli inducing or reinforcing behavior-symptom, as in the case of social pressure to use alcohol, interpersonal conflicts and situations, places or people identified as at risk for relapse<sup>(25)</sup>. It appears that the social variable, which could be a counterpoint to the user's responsibility, serves, in fact, in most studies, to ratify it, since most of the references designed to the environment is seen from a pathological perspective. Thus, the social context is included in a perspective that reserves to the term “environment” a compatible conception not critical or historical, at the same time, with a vision of biological character of social life<sup>(26)</sup>.

This logic generates at least two major problems in relation to the issue of relapse. Firstly, the professional can adopt an attitude of abstinence supervisor, which is inconsistent with a clinical attitude – which, by definition, is a space for listening and receiving. This position seems even more misguided given the research indicating that the relevance of psychotherapy for recovery is due to the quality of the therapeutic relationship, and not the simple application techniques. However, not only the practice of supervision is maintained, as well as develop other more restricted, such as monitoring of patients by telephone to verify compliance of planning of relapse prevention<sup>(27)</sup>, or even the use of laboratory tests to monitor abstinence<sup>(28)</sup>.

More radical positions like these mentioned may impair the establishment of a therapeutic relationship because the therapist assumes the role of supervisor. The patient is faced with discipline and restraint, so that the relapse ceases to be a problem to be tackled with the help of the therapist and becomes a failure that must be confessed. This brings up a second problem, the frustration of not getting successful treatment.

Besides the already mentioned effect of interruption of abstinence, which contributes to increase consumption<sup>(11)</sup>, relapse is accompanied by feelings of guilt and is referred to as a loss and as a symptom of a disease that, at best, can be temporarily controlled by the individual<sup>(29)</sup>. The feelings of failure, shame and guilt coming from relapse produce an effect of abandonment of treatment attempt and promote greater consumption<sup>(30)</sup>. That is, the emphasis on abstinence as a goal may be iatrogenic.

Therefore, it is need another definition of health. There are some attempts in this direction, based on the finding that improved health and other aspects of life does not always coincide with abstinence<sup>(31)</sup>. An interesting proposal is one that includes the improvement of the social and family relationship as a criterion to define recovery<sup>(32)</sup>. These and other qualitative criteria form a definition of recovery based on the decrease of the

problems arising from the act of drinking, and not only in the reduction of consumption itself.

From this perspective, relapse is defined as worsening of addiction, and not as a return to the consumption, either episodic or habitual. This idea is reinforced by studies on recovery without treatment, pointing proportions of up to 77% of alcoholics who have recovered without recourse to health services, as well as up to 63% that resolved their problems without becoming abstainers<sup>(33-34)</sup>.

Besides the relativization of the notion of relapse and treatment goals, also emerged studies that provide information on other factors related to addiction and recovery. For example, the importance of social support, especially from family bonds<sup>(34-35)</sup>.

Unfavorable socioeconomic conditions (low income and unemployment, among others) have been associated with the development of alcohol dependence<sup>(36)</sup> and also to relapse and the greater difficulty of recovery<sup>(37-38)</sup>.

Religious practice has also been associated with recovering alcoholics<sup>(32,36,39)</sup>. This can be explained by the new net of friends, the reception by the group and by offering support to rebuild their lives<sup>(40)</sup>. In this sense, a case study<sup>(41)</sup> explores the importance of the social group to restructure life, because it is through it that makes it possible to legitimize other forms of social integration and not only the role of dependent. The personal commitment combined with a life project promotes recovery<sup>(42)</sup>.

Despite these findings, the attitudes of health professionals have changed little in recent decades<sup>(43)</sup>. The “biopsychosocial” or “multidimensional” character of dependency is already well established in the scientific community, however assimilated to biomedical mold, without a real change in the practices and in how to produce knowledge.

### Final considerations

Despite the findings of studies evaluating traditional treatments for addiction to alcohol and other substances, the data suggest the permanence of dominance of a biomedical approach of this phenomenon in international scientific publications. Addiction is widely recognized as a “multidimensional” phenomenon, however most research assessed here maintains a research perspective of intraindividual factors, studying the individual in an unhistorical way and paying little attention to the context in where he belongs. The preservation of this epistemological posture and scientific rationality model supports reproduction of ineffective practices and/or questionable results.

Studies that carried out their investigations from the point of view of alcoholic and about the effects of their social context have observed misconceptions in traditional treatments, providing an opening in the area of drug addiction. For this change is made, it is necessary to assimilate with greater amplitude the contribution of the

social sciences, producing more research that contributes to the expansion of understanding of the various determinants of addiction, recovery and relapse, in order to establish a foundation of perspective of integrity of health.

The emphasis on individual aspects creates some problems in much of the research: reductionist view, neglect the importance of the therapist-patient relationship and the effects of context and social net; no consideration of the results of investigations on the recovery without treatment; disregard the patient’s perspective, as well as the contribution of the social sciences, both in method and in relation to the relevance of its epistemological critique.

To advance in research on the alcohol use and dependence, it is therefore necessary to overcome some of these resistances. Certainly it is not to propose a migration from one to another pole (quantitative/qualitative, biological/social), but to make an opening for the incorporation of other methods and to expand concepts with features more interdisciplinary. More specifically, it is important to incorporate qualitative methods, which address the individual’s point of view and consider the specifics of their social context and conceptual expansion of health and of the approached individual, so that the research and intervention contemplate integrity in health.

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