CONTROL PERCEPTION AND COPING BEHAVIOR

IN ABSTINENCE IN ALCOHOLICS

Isabel Vielva[†] Ioseba Iraurgi

Instituto Deusto de Drogodependencias. Universidad de Deusto. Módulo de asistencia psicosocial de Rekalde, Bilbao

ABSTRACTS

The aim of the study is to determine which factors are associated with abstinence in alcoholics. Observational and cross-sectional studies were carried out to study the relationships between causal attributions, selfefficacy and locus of control expectancies, and coping behavior in the problem of alcohol abuse, on the one hand, and abstinence, on the other. Chronicity and background variables are also analyzed. Participants were 201 alcoholics in outpatient treatment. Correlation analysis revealed close relationship among the psychological variables, as well as between these variables and abstinence: longer periods of abstinence were associated with more positive causal attributions, higher self-efficacy, internal locus of control, and more active coping behavior. A hierarchical regression analysis was also performed, showing that certain attributions, self-efficacy, and locus of control accounted for abstinence, but coping did not. Background did not reveal any association, but attending treatment and self-help groups, such as Alcoholics Anonymous, did. Because of their relationship, it is suggested that cognitive variables should be enhanced in treatment.

Key-words: Attributions, Self-efficacy, Locus of control, Coping, Abstinence, Alcoholism.

Note: In memoriam to Isabel Vielva, the first author. Today is not with us, but her work and friendship will last always.

RESUMEN

El objetivo del estudio es encontrar factores asociados a la abstinencia. Para ello, se ha realizado un estudio observacional, transversal en el que se analiza la relación entre las atribuciones causales, las expectativas de autoeficacia y de lugar de control y la conducta de afrontamiento ante el problema de alcoholismo, por un lado, y la abstinencia, por otro, en una muestra de 201 alcohólicos en tratamiento ambulatorio. Se analizan también variables sociodemográficas y de cronicidad. Los análisis de correlación revelan una relación estrecha entre las variables psicológicas entre si y con la abstinencia: cuanto mayor es el tiempo de abstinencia, más positivas son las atribuciones causales, mayor es la autoeficacia, mayor es el lugar de control interno y más activo es el afrontamiento. Posteriormente se llevó a cabo un análisis de regresión múltiple, que mostró que algunas atribuciones, la autoeficacia y el lugar de control explicaban por si solas la abstinencia, no así el afrontamiento. Las variables sociodemográficas no resultaron tener una asociación significativa, pero sí la asistencia al tratamiento y a grupos de autoayuda. Debido a las implicaciones que tienen estas variables en el curso y pronóstico de la dependencia, se sugiere que se tengan en cuenta las variables cognitivas en el tratamiento del alcoholismo.

Palabras Clave: Atribuciones, Auto-eficacia, Locus de control, Afrontamiento, Abstinencia, Alcoholismo

INTRODUCTION

Abstinence is a primary goal of treatment for alcoholism, but also one of the main problems. Giving up alcohol, resisting the desire to drink for weeks or even for months is relatively easy; what is more difficult is to maintain the abstinence without relapses. Several studies in the literature indicate a high rate of relapses in addictions treatment (Connors, Maisto & Zywiack, 1996).

The frequency and the severity of relapse require an explanation in order to discover which factors are associated with its presence or absence. With the aim of contributing to the identification of these factors, several cognitive and behavioral aspects have been analyzed in this study: control perception -which includes causal attributions, self-efficacy and locus of control expectancies- and coping behavior. Control perception is a cognitive variable, defined here as a set of beliefs held by alcoholics about their ability to resist urges to drink and overcome dependence. Coping is a cognitive-behavioral variable that refers to the efforts and actions performed by alcoholics to manage or overcome their problem. The first variable represents what the alcoholic think, the second one what they do. Both factors are important pieces of the puzzle called "recovery".

It is often observed in clinical settings that many alcoholics who relapse doubt their ability to maintain abstinence when they experience craving or they must cope with problematic situations. As a result of these observations, several authors wondered whether beliefs about addiction and about the ability to deal with it might condition the alcoholic's evolution. More specifically, beliefs such as "I can maintain abstinence", or its opposite, "I cannot resist the urge to drink", and "it is beyond my control to overcome my dependence" might influence the way alcoholic cope with their problem and therefore condition treatment outcome.

This proposal has been confirmed in literature, with some limitations. Most of the works have studied "control perception". They have focused broadly on the locus of control (Koski-Jannes, 1994; Mariano et al., 1989; Prasadarao, & Mishra, 1992; Strom & Barone, 1993) or on self-efficacy expectancies (Annis & Davis, 1988; Burling et al., 1989; Connors, Maisto & Zywiak, 1996; DiClemente, Fairhurst & Piotrowski, 1995; Goldbeck, Myatt & Aitchison, 1997; Long et al., 1998; Ross et al., 1989; Rounds et al., 1997). As hypothesized, results tend to show significant associations between internal locus of control, or high self-efficacy, and duration of abstinence, treatment attendance and maintaining sobriety three, six or twelve months after treatment. It is assumed that clients with positive personal judgements spend more effort and are more persistent in dealing with their alcohol dependence. In spite of this, there are also studies which neglect this relation between self-efficacy and outcome (Langenbucher, et al., 1996; Mayer & Koeningsmark, 1991).

According to the literature, expectancies are an important predictor of treatment outcome. However, most of the studies have not examined the source of these expectancies. Why does one alcoholic have a high expectancy of remaining abstinent while another does not? The attributional approach offers some answer. Marlatt and Gordon (1985) were among the first researchers to use this approach to explain the process of relapse, more specifically, why an initial lapse leads to a full-blown relapse. They proposed an alcoholic's causal explanation for a lapse

would either increase or decrease the probability of a relapse. If the lapse was attributed to an internal, stable, and uncontrollable cause (for example: "I am an alcoholic and will never stop being one", or "I do not have will power"), then the individuals would experience feelings of blame and hopelessness and expectancies of failure, which would increase the probability of relapse. On the contrary, if the lapse was attributed to internal, controllable, and unstable causes ("not having coped well with the situation".), then the probability of relapse would decreases. This attribution maintains the alcoholic's confidence in being able to resist the urge to drink the next time.

Although Marlatt's work has received much attention, it focused on relapse crisis (Marlatt & Gordon, 1985). In the present study, we attempt to extend attributional analysis to the whole process of recovery, attending to the successes as well as to the failures experience by alcoholics in their attempts to give up drinking.

To a great extent, the way individuals think, in terms of expectancies or attributions, determines the way they behave. Coping behavior is widely recognized as a crucial variable in the treatment, in the sense that, unless the problem is actively faced, it cannot be solved. Clients who cope, adopting cognitive and behavioral responses to deal with their problem, are more likely to be abstinent (Brown et al., 1995; Connors, Maisto & Zywiak, 1996; Ito & Donovan, 1990; Miller et al., 1996; Moser & Annis, 1996; Shiffman, 1987).

Most of the studies focusing on cognitive-behavioral variables have not tested the relation between attributions, expectancies, coping, and abstinence at the same time. In the present study, we attempt to achieve the following goals: 1) to test the relations between these psychological variables, 2) to determine the effect of each variable to abstinence, and 3) to extend the attributional approach to successes and failures in giving up drinking.

METHOD

Sample

The sample was made up of 201 participants diagnosed as alcoholics in accordance with the DSM-III-R criteria (American Psychiatric Association, 1987). They also had positive scores in the Short Michigan Alco-

holism Test (Selzer, Vinokur & van Rooijen, 1975) -average score: 8,3; standard deviation (SD): 2,3. All of them met the following inclusion criteria: having alcoholism disorder as a primary diagnosis; not being diagnosed as having any cerebral organic syndrome; not having any other addiction; and agreeing to abstinence as a treatment goal.

Most of the subjects were men (80,1%); the mean age was 42,6 years (SD: 9,2); 32,5% had primary studies, 51% secondary studies, and 16,5% had a college degree or its equivalent; slightly more than half (55,2%) were employed, 24,1% were unemployed, and the rest was retired; 64,7% were married. The mean duration of the problem was 144,3 months (SD: 103,3 months; median: 120 months); and the mean duration of current medical treatment was 36,2 months (SD: 56,3 months; median: 12 months). Half of the subjects (50,5%) were attending Alcoholics Anonymous, mean attendance time was 42,6 months (SD: 54,1; median: 23 months). Most of the participants (90%) had experienced several failures in their attempts to give up drinking.

Procedure

We requested the participation of the mental health centers of a particular geographical area (Bajo Ibaizabal, province of Vizcaya). Almost all of the centers (nine) and two self-help groups (Alcoholics Anonymous and Golden Cross) agreed to collaborate in the research. The participation was voluntary. Participants were interviewed individually by one of the authors at their respective centers. We administered a battery of questionnaires and asked about their present period of abstinence.

Material

The questionnaires employed were adapted to the Spanish sample. Their psychometric properties were explored by factor analysis (principal components and orthogonal rotation), Cronbach's alpha, and convergent, concurrent, and predictive validity tests, all of which provided adequate results. They are described in detail elsewhere (Vielva, 1994; Vielva, Llorente & Annis, 1997).

Causal Dimension Scale II (CDS II; McAuley, Duncan & Russell, 1992). This scale shows whether the causes attributed by alcoholics to their periods of abstinence and relapses are internal/external, stable/unstable and controllable/uncontrollable. The authors distinguished between internal controllability and external controllability, which, in both cases, indicates that the outcome is under control. In the first case, control is exerted by the person him- or herself; in the second case, by others. This difference was made so as to distinguish external controllability from uncontrollability. The four factors revealed by factor analysis –locus, stability, internal control and external control- obtained alpha values between 0,88 and 0,91.

The Alcohol Confidence Questionnaire (ACQ; Annis & Graham, 1988). This questionnaire indicates the alcoholic's confidence about being able to resist the urge to drink in high-risk situations. It has one factor with an alpha of 0,96.

The Drinking Related Internal-External (DRIE; Donovan & O'Leary, 1978). This scale provides information on the alcoholic's belief about whether giving up drinking is under or beyond control. No factor analysis was carried out because of the dichotomic responses. It has an alpha of 0,83.

The Life Situations Inventory (Feifel & Strack, 1989). This instrument, adjusted to the purpose of the study, reveals whether alcoholic individuals cope in an active way with the problem, whether they avoids it, or resign themselves to it. Factor analysis yielded three factors –active coping, avoidance, and resignation– with alpha values ranging from 0,65 to 0,76.

Abstinence, a variable related to treatment outcome, was defined as the uninterrupted period of time during which the alcoholic did not consume any alcohol. This variable was considered continuous, computing the time (in months) without alcohol consumption. Relapse was defined as the consumption of alcohol during the six months following the administration of the questionnaires.

RESULTS

Background and chronicity variables and abstinence.

The mean time of abstinence was 13,7 months, with a standard deviation of 17,1. Association coefficients revealed no relations between age, sex, study level, labor status, and civil status (coefficients were non significant, p > 0,10). On the other hand, a relationship between alcohol consumption variables and abstinence was observed: the longer the duration of the problem (r=0,26; p<0,001), and the longer the time in medical treatment (r=0,16; p<0,05), and attending self-help groups (r=0,80; p<0,001), the longer was the period of abstinence.

Causal attributions, self-efficacy, locus of control expectancy and coping.

As seen in Table 1, Pearson correlations were calculated to test the relationship between these variables. The results show important correlations between most of them.

Regarding attributions, the more strongly an individual believed that abstinence was under personal control and was stable, the higher were self-efficacy and internal locus of control, and coping with the problem was more active, and resignation was less frequent. Likewise, the more it was believed that relapse could be avoid (under control) and very unusual (very unstable), the higher were self-efficacy and internal locus of control expectancies, coping was the more active, and avoidance and resignation were less frequent.

In regard with expectancies, there was a high correlation between selfefficacy and locus of control: the greater confidence about being able to resist drinking, the more internal locus of control over drinking problem. There was also an association between expectancies and coping: higher self-efficacy and more the internal locus of control were associated with more active coping and less frequent resignation and avoidance.

Lastly, active coping was related to expectancies and to some attributions.

Psychological variables and abstinence.

In Table 1 can be seen the associations between various psychological variables and abstinence. More positive attributions (in the terms described above) were associated with longer periods of abstinence, as were higher self-efficacy and more internal locus of control. Active coping behavior was associated with longer periods of abstinence.

However, the relation found between chronicity and psychological variables and abstinence makes one wonder whether the relationship between psychological variables and abstinence is due to the influence of the other variables. In order to assess the relative roles of chronicity and psychological variables in the abstinence duration, multiple regression analyses were carried out, using a hierarchical method (see Table 2).

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| | ပ ၂ | TABLE 1 Correlation between psychological variables and abstinence duration | n betv | veen ps | sycholo | TABLE 1 gical var | 1 ariable | s and a | bstine | nce dur | ation | | | |
|-----------------------------|-----------|--|-----------------|---------------|-------------|---|-----------------|----------------------------|------------------|--------------|----------|------------------------------|-------|-------|
| | - | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 6 | 10 | 11 | 12 | 13 | 14 |
| 1 Locus of control | | | | | | | | | | | | | | |
| 2 Self-efficacy | -0,62*** | | | | | | | | | | | | | |
| 3 AA Locus | -0,03 | 0,07 | | | | | | | | | | | | |
| 4 AA Internal Control | -0,31*** | | 0,35*** 0,57*** | | | | | | | | | | | |
| 5 AA External Control | 60'0 | -0,08 | -0,36*** | -0,15* | | | | | | | | | | |
| 6 AA Stability | -0,43*** | -0,43*** 0,60*** 0,18** | 0,18** | 0,53*** -0,03 | -0,03 | H | | | | | | | | |
| 7 RA Locus | -0,22** | 0,19** | 0,20** | 0,23*** -(| -0,07 | 0,16* | | | | | | | | |
| 8 RA Internal Control | -0,46*** | -0,46*** 0,39*** 0,27*** | 0,27*** | 0,55*** | -0,18** | 0,55*** | 0,55*** 0,31*** | | | | | | | |
| 9 RA External Control | 0,33*** | 0,33*** -0,28*** -0,16* | -0,16* | -0,16* | 0,39*** | -0,24*** | -0,27*** | -0,24*** -0,27*** -0,23*** | | | | | | |
| 10 RA Stability | 0,54*** - | -0,66*** -0,03 | -0,03 | -0,33*** | 0,13 | -0,50*** | 0,50*** -0,21** | -0,40*** | -0,40*** 0,45*** | | | | | |
| 11 Active coping | -0,24*** | -0,24*** 0,42*** 0,03 | 0,03 | 0,16* | 0,02 | 0,28*** | 0,06 | 0,23*** | -0,13 | -0,26*** | ł | | | |
| 12 Avoidance coping | 0,24*** | -0,19** | 0,13 | 0,05 | 0,10 | -0,11 | -0,10 | -0,10 0,23** | 0,23*** | 0,18** -0,04 | -0,04 | | | |
| 13 Resignation coping | 0,47*** | -0,43*** 0,04 | 0,04 | -0,17** | -0,05 | -0,31*** | -0,06 | -0,24*** (| 0,24*** | 0,35*** | -0,30*** | 0,21*** | ł | |
| 14 Abstinence time | -0,17* | 0,38*** (| 0,00 | 0,19** | 0,11 | 0,26*** | 0,09 | 0,19** | -0,12 | -0,42*** | 0,25*** | -0,12 -0,42*** 0,25*** -0,11 | -0,13 | |
| Mean | 29,57 | 81,25 | 11,91 | 12,06 | 9,88 | 11,76 | 12,73 | 11,65 | 7,38 | 6,81 | 34,14 | 19,22 | | 18,88 |
| Standard Deviation | 4,10 | 17,34 | 2,71 | 2,70 | 3,62 | 2,72 | 2,51 | 2,74 | 3,35 | 2,84 | 4,95 | 6,83 | 2,78 | 30,75 |
| Z | 222 | 196 | 199 | 198 | 200 | 199 | 200 | 200 | 199 | 200 | 200 | 197 | 195 | 201 |
| | | | | | | | | | | | | | | |
| AA: Abstinence attributions | tions | *Correlati | ion greate | sr than 0,1 | 5 or less t | *Correlation greater than 0,15 or less than -0,15 significant at p<0,05 | significan | it at p<0,0 | 5 | | | | | |
| KA: Relapse auribulions | ß | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | ession Coefficients (beta) | | | |
|---|----------------------------|---------|---------|---------|
| Variables ^a | MODEL 1 | MODEL 2 | MODEL 3 | MODEL 4 |
| Background variables | | | | |
| Age | 0,06 | 0,02 | -0,10 | |
| Gender (man) | 0,13 | 0,11 | 0,15* | 0,16* |
| Civil Status (married) Education level | 0,04 | 0,04 | 0,03 | |
| (secondary) | -0,04 | -0,07 | -0,06 | |
| (Collage studies) | -0,01 | -0,07 | -0,06 | |
| Work Status (employed) | -0,14 | -0,11 | -0,10 | |
| Chronicity variables | | | | |
| Problem duration | | 0,11 | 0,10 | |
| Medical treatment duration | | 0,11 | 0,15* | 0,20* |
| Self-help group participation (| yes) | 0,24** | 0,20** | 0,21** |
| Psychological variables | | | | |
| Locus of control (expectancy) | | | 0,34** | 0,35** |
| Self-efficacy | | | 0,29** | 0,34** |
| Abstinence locus attributions | | 0,24* | 0,22** | |
| Abstinence internal control att | | -0,02 | | |
| Abstinence external control at | | 0,26* | 0,24* | |
| Abstinence stability attribution | | -0,01 | | |
| Relapse locus attributions | | 0,04 | | |
| Relapse internal control attrib | | | 0,04 | |
| Relapse external control attrib | | 0,08 | | |
| Relapse stability attributions | | | -0,24* | -0,26** |
| Active coping | | | -0,00 | |
| Avoidance coping | | | -0,02 | |
| Resignation coping | | | 0,01 | |
| Adjusted R2 | 0,002 | 0,11 | 0,24 | 0,27 |

*p<0,05; **p<0,01; ***p<0,001

a.- Parenthesis indicate the group coded as 1 for dummy variables

Note: Model 4 was obtained by stepwise method.

Model 1 includes background characteristics such as age, sex, civil status (married versus unmarried), educational level (primary, secondary and collage studies), and work status (employed versus unemployed). Model 2 adds chronicity variables: problem duration, duration of medical treatment, and use of self-help group (participation versus no participation). Model 3 incorporates all of the psychological factors. Lastly, Model 4 present the final results of a step-wise regression.

Model 1 was not significant ($F(_{6141}) = 1,07$; p=0,3821); none of the background variables included in the model accounted for abstinence (R²=0,002). Inclusion of chronicity variables (Model 2) increased the variance accounted for $(R^2=0,11)$, but this was only due to the use of self-help group (=0,24; p<0,01). Inclusion of psychological variables in the next step (Model 3) increased the power of sex (being a man, =0,15; p<0,05), and duration of medical treatment (=0,16; p<0,05), to account for the variance, while the contribution of attending a self-help group was maintained. Among the psychological variables related to abstinence were locus of control expectancy (=0,34; p<0,01), self-efficacy (=0,29; p<0,01), and locus and control attributions of success (b=0,24 and =0,26, respectively; p<0,01). On other hand, stability of failure was negatively associated with abstinence (=-0,24; p<0,05). When controlling the effect of all variables, the relation revealed in the Pearson correlation between active coping behavior and abstinence was lost. Model 4, obtained by the stepwise method, unites the contribution of the significant variables in Model 3, increasing the variance accounted for, which goes from $R^2=0.24$ in Model 3 to $R^2=0,27$ in Model 4.

DISCUSSION

The present research attempts to test the relationship between control perception, coping behavior, and abstinence in alcoholism treatment. The aim is to identify factors that facilitate the maintenance of abstinence. This general aim is divided into several specific goals.

Firstly, to confirming the associations between the cognitive variables included under the concept "control perception": causal attributions -beliefs about the past- and self-efficacy and locus of control expectancies beliefs about the future. The reason of including attributions is their relationship with these expectancies. In spite of their importance, there is little research about their source. Why do some alcoholics have high expectancies and others have low ones? According to Weiner's attribution model (1986), the relation "attributions and expectancies" is very close: what is expected from the future depends on what has happened in the past and how it was explained. There is a link between past and future, and determining this link allows us to understand expectancies and behaviors. According to this theory and to the work developed by Marlatt (Marlatt & Gordon, 1985), in this research, we proposed a close relationship between causal attributions of the successes and failures in treatment (periods of abstinence and relapse, respectively) and expectancies. And the results obtained confirm this relationship.

The alcoholics who attributed their abstinence to stable and controllable causes expected to go on maintaining abstinence in the future, that is, they had high self-efficacy and internal locus of control over drinking. This expectancy was also maintained if they believed that relapse, if it occurred, was isolated or remote (unstable) and that it could be avoided (controllable). On the contrary, the alcoholics who believed that abstinence was unstable and hardly controllable had little confidence about being able to resist the urge to drink, and felt powerless. And they had the same low expectancies if they considered relapse to be chronic and uncontrollable.

Secondly, we tested the relationship between alcoholic's control perception and their coping behavior when faced with the problem. The results obtained confirm this relationship. Beliefs about the possibility of achieving a goal do condition the way a person copes with the situation or problem. The alcoholics who made positive attributions (stable, controllable attributions about abstinence and unstable, controllable attributions about relapses) and who held high control expectancies (self-efficacy and internal locus of control) coped more actively with their problem. On the contrary, the alcoholics who made negative attributions (unstable and uncontrollable attributions about abstinence and stable and uncontrollable attributions about relapses) and who held low expectancies, behaved in a more passive way, avoided coping with their problem, or became resigned to it.

Thirdly, we tested empirically whether control perception and coping were associated with abstinence. Our results confirmed the hypothesis. Alcoholics who maintained abstinence for shorter periods of time were characterized as follows: they attributed abstinence to more unstable and uncontrollable causes, such as having been in bed, being under another person's surveillance, or taking medication. They attributed relapse to more stable and uncontrollable causes, such as suffering from alcoholism or lack of will power. Therefore, they felt less confident (low self-efficacy) about resisting the urge to drink in high-risk situations, and they believed themselves to be the victims of situations that were beyond their control (external locus of control). The opposite was observed with the alcoholics who had undergone longer periods of abstinence. These individuals attributed abstinence and relapse, if it occurred, to positive causes and held high expectancies of recovery.

The results obtained in this study confirm those reported by several studies referring to attributions (Collins & Lapp, 1991; Grove, 1993; Schmitz, Rosenfarb & Payne, 1993; Stephens et al., 1994; Walton, Castro & Barrington, 1994), to locus of control (Koski-Jannes, 1994; Mariano et al., 1989; Strom & Barone, 1993), and self-efficacy expectancies (Annis & Davis, 1988; Burling et al., 1989; Connors, Maisto & Zywiak, 1996; DiClemente, Fairhurst & Piotrowski, 1995; Goldbeck, Myatt & Aitchison, 1997; Long, et al., 1998; Ross et al., 1989; Rounds et al., 1997).

With regard to coping, and according to some studies (Brown et al., 1995; Connors, Maisto & Zywiak, 1996; Ito & Donovan, 1990; Moser & Annis, 1996; Miller et al., 1996; Shiffman, 1987), current research confirms its relationship with outcome treatment: alcoholics who had undergone longer periods of abstinence coped more actively with their problem than those who had undergone shorter periods (i.e., the former tried to learn more about their problem and understand it, tried to do "some-thing" to recover, etc). This attitude makes it easier to resist the urge to drink and facilitates recovery from alcoholism, which, in practice, result in long periods of abstinence.

With regard to the background variables, our results confirm those obtained in other studies (Finney & Moos, 1992; Glenn & Parsons, 1991). The relationship between these variables and abstinence is weak, when not nonexistent, and, since little can be done to modify these variables, the studies do not offer relevant information about treatment.

As expected, medical treatment and self-help groups are significantly related to abstinence, especially attending self-help groups. Attending these therapies should be considered a protective factor against relapse. Alcoholics who continue to maintain periodic contact with their therapist and/or to attend self-help groups are more likely to assume and cope well with their problem than those who leave treatment. These conclusions about the important role of the treatment in the alcoholic's recovery, especially the role of self-help groups, confirm the results obtained by several authors (Hopson & Beaird-Spiller, 1995; Ito & Donovan, 1990; Morgenstern et al., 1997).

Summing up, several hierarchical regression analyses were carried out to test whether the relationship between psychological variables and abstinence was maintained when controlling the possible effect of background and chronicity variables. The results partially confirm that cognitive variables alone account for abstinence. Having control expectancies over addiction (internal locus of control and self-efficacy) is associated with abstinence and helps to account for it. Both expectancies are, in fact, the most powerful among all the psychological variables to account for abstinence. Making certain positive attributions about one's successes and failures in treatment also account for outcome, which confirms a close relationship between causal attributions and expectancies. However, not all the causal dimensions influence abstinence. According to Weiner (1986), stability does, although it is related to failure. Attributing relapse to stable causes is the most devastating interpretation alcoholics can make to explain their treatment failures. This is not surprising because this thought decreases or cancels the expectancy of recovery. With regard to the locus dimension, although unexpected, attributing abstinence to internal factors (will power, ability, effort) account for abstinence, due to the sense of confidence generated by this attribution. The stability dimension may also combine with the locus dimension: in addition to being internal, the above-mentioned causes are also stable. This might explain why abstinence stability does not seem to explain treatment outcomes. Even so, causal attributions (at least some of them) account for abstinence.

However, coping behavior, by itself, does not account for abstinence. When the effects of other variables were controlled, coping failed to account for abstinence. This result can be interpreted in two ways: on the one hand, studies which support the importance of this variable have used other instruments, which usually ask subjects about the way they cope with their relapse crises and offer a great variety of coping behaviors. The questionnaire used in this paper asks alcoholics about the way, the style with which they cope with their alcoholism problem. These differences may be responsible for the fact that coping variable, in itself, does not account for abstinence. On the other hand, a second interpretation might be that all the alcoholics in our sample considered that they were coping with their problem in a more or less active way. That is, all of them were attending medical treatment or self-help groups, taking medication, and were informed about the problem, etc. Therefore, the difference between alcoholics who maintained abstinence for longer periods and those who maintained it for shorter periods may not be in the way they overtly cope with the problem (coping style), but rather in the confidence with which they cope, their determination, and the assurance with which they behave. And this "qualitative" difference is not well reflected in a coping instrument, but in one which measures control perception. Not only is it important for the alcoholic to adopt an observable active behavior towards the addiction, but also to really believe that he or she is capable of overcoming the problem.

CONCLUSIONS AND THERAPEUTIC IMPLICATIONS

The conclusions that can be drawn from of this research advocate the consideration of cognitive-behavioral variables, among others, in the alcoholic's treatment. Control perception over an addiction problem is related to and account for the maintenance of abstinence. Positive causal attributions of abstinence and relapse and high control expectancies about recovery are characteristics of alcoholics who achieve long periods of abstinence. Of the two variables, expectancies seem to be the most powerful in relation to outcome treatment.

There are several reasons for considering control perception in the alcoholic's treatment. Firstly, because it affects the determination with which the alcoholics copes with their problem. If the alcoholic doubts the possibility of recovery, it will be difficult to achieve. Control perception prevents alcoholics from feeling victimized and hopeless, motivating them to action and making success more likely.

Secondly, control perception involves a sense of responsibility, not for the cause of the problem, but for its solution. Given that we usually assume responsibility for what is under our control and avoid responsibility for what is beyond it, the possibility that something can be done should be emphasized. Only this way will a person make the effort and mobilize the necessary resources.

And thirdly, having a sense of personal control over the problem and coping actively with it are personal, internal psychological resources that are the main guarantee for recovery. Nobody can stop drinking for the alcoholic. The prompt intervention of a professional or relative, surveillance, admission into hospital, taking medicine, etc., although essential in the first phase of treatment, do not guarantee that an alcoholic is going to give up drinking. What guarantees this is that the alcoholic believes he or she is capable of doing it, knows how to do it, and wants to do it.

In relation to control beliefs, though it is important to develop them, it is just as important for them to be realistic and in accordance with the alcoholics' evolution and skills. To feel oneself to be the victim of circumstances that cannot be changed is just as negative as to thinks that one has the problem under control before the proper time and without suitable preparation. This illusion of control may lead to being overconfident and not taking the necessary precautionary measures in high-risk situations, an attitude that increases the risk of relapse. The development of control perception must therefore be realistic and gradual, increasing as treatment continues favorably. Only in this way can it function as a variable that facilitates the maintenance of abstinence.

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Correspondencia:

Ioseba Iraurgi Castillo Módulo de Asistencia Psicosocial de Rekalde Camilo Villabaso, 24 lonja. 48002 Bilbao Teléfono: 94 444 98 59-60 e-mail: iraurgi@euskalnet.net