Alcohol and driving: What research on alcoholic relapse reveals

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1. Introduction

The topic of alcohol drinking and drunken driving has a long tradition on both sides of the Atlantic Ocean (Echterhoff, 1991).

In the United States 25,000 deaths and 75,000 injuries a year are attributed to drunk driving (Nathan, 1983). Many of those killed or injured are youthful drivers; drunk driving or driving while impaired (DWI) is a leading cause of death among the United States' young people. According to Borkenstein (1981), the incidence of drunk driving might be reduced by simultaneously 1. reducing per capita alcohol consumption (by increasing price and/or raising drinking age), 2. increasing enforcement efforts to bring about general deterrence of drinking and driving, and 3. constructing streets and highways in such a way that they place fewer demands on drivers. Although such a massive program would doubtless affect the rates of drunken driving, it is not likely that legislative bodies could be mobilized anytime to authorize the monumental expenditure of public funds necessary to put this program into action and operation.

In Germany 11,045 deaths and 510,926 injuries caused by traffic had been registered in 1990 (Colditz, 1991), about 20% to 50% are attributed to drunk driving (Stephan, 1990a).

Ostermann (1987) found in a survey of the literature on repeated offences varying rates between 10% to 25% during five years; in his own study on N=1531 first time offences recidivism occurred in 14.1% of all cases.

A 36 month long-term study on the "Effectiveness of programs for drivers with several drinking and driving offences" (Winkler, Jacobshagen & Nickel, 1988) demonstrates a relapse-rate for DWI of 13.3% for the three treatment groups compared with a relapse-rate of 18.8% for the control group. The three different behavioural models on which the program is based (IFT, IRAK, LEER) proved to be equally successful (Heinrich & Porschen, 1988).

Based on our recent knowledge about the prediction of drunken driving offences (e.g. Donovan, Marlatt & Salzberg, 1983), giving an expert opinion is a very difficult and responsible task (Stephan, 1990b). Psychometric diagnostics show only a very limited success for the prediction of future driving offences (Kaiser, 1990). Most test-predictors of DWI-relapse show usually low correlations in the .25 to .35 range (Craig & Dres, 1989; Little & Robinson, 1989).

Stephan (1989) emphasized to take into account the results of research on alcoholism for the relapse-prevention of drinking drivers. Additionally the consideration of the results of alcoholic relapse research seems helpful and necessary, because the drinking relapse precedes the relapse in drunken driving.
2. The alcoholics' relapse: Old myths and empirical facts

In most psychiatric and somatic disorders (e.g. schizophrenia and diabetes) relapses are frequent and common, constituting an integral part of the diseases. Psychoanalysis created the word "Wiederholungszwang" (repetition-compulsion), which means that repetitions of maladaptive behaviours are necessary to heal a neurosis. In the disease-concept of alcoholism, relapses are regarded as signs of a failure of treatment, of a lack of willpower, as a catastrophe, as one more step in destroying the self of the alcoholic.

Often these negative emotions concerning the alcoholics' relapse lead to an interruption of treatment and interventions, to acting out by therapists (e.g. discharge from inpatient-treatment) and are a burden for both, counsellors and clients, leading to emotional problems and different defense-mechanism (Körkel, 1991; Körkel & Lauer, 1992). A moralistic attitude about relapse and abstinence for a long time clouded scientific research on the topic of addictions and alcoholism. A new understanding of relapse finds increasing empirical support, and long-term abstinence is seen as the most favourable result of alcoholism treatment, but relapse is regarded as the most common outcome (Lauer & Körkel, 1993).

2.1. What happens after the first relapse?

A study (Hunt, Barnett & Branch, 1971) demonstrates that relapse is the more common outcome than is abstinence after the treatment of different addictions. About two thirds of all relapses occurred within the first 3 months following treatment. Twelve months after treatment termination only 20% to 30% of the addicts remained completely abstinent. But this study (Hunt, Barnett & Branch, 1971) does not show what happens after the first relapse.

Looking to another study (Gottheil, Thornton, Skoloda & Alterman, 1982), a follow-up of N=171 treated alcoholics, evaluating the drinking status at 6, 12, and 24 months after termination of treatment, shows shifts from the drinking categories remission to relapse and from relapse to remission. Other studies (for a review: Feuerlein, 1990) give further support to the opinion, that the drinking behaviour of alcoholics after treatment takes a very variable course. In a German multicenter study (Kühn & Feuerlein, 1989) three patterns of not deteriorating relapses had been identified for 72% of all relapsed persons:

1. 15% of all relapsed alcoholics had only one renewed consumption of alcohol within 18 months.

2. 54% of all relapsed alcoholics showed several relapses with a maximum duration of three days 18 months after the termination of inpatient alcoholism treatment.

3. 3% consumed - perhaps able for controlled drinking - steadily moderate amounts of alcohol (30 to 60 g/day) without deteriorating effects on daily life.

Thus, only 28% of the relapses took a serious course, leading to renewed alcoholism and perhaps to renewed treatment.

Several theories try to explain the relapse-process (review: Körkel & Lauer, 1992). Away from the disease-concept of alcoholism, which sees relapses triggered by biochemical deficiencies of the alcoholic, psychodynamic, behavioural and cognitive approaches had been developed. According to Marlatt and Gordon (1985) relapses have multiple
2.2. Factors associated with the prognosis after relapses

In a recent review (Körkel & Lauer, 1992) some associations with a better prognosis after the first relapse had been found:

1. Type, duration and intensity of alcoholism treatment. A longer and more intensive inpatient-treatment leads to a better prognosis, e. g. longer abstinence and fewer and shorter relapse-episodes.

2. Features of the alcoholic. An alcoholic with less positive expectations concerning the effects of alcohol beverage will have a decreased relapse-risk (Brown, 1985; Connors, O'Farrell & Pelcovits, 1988; Rather & Sherman, 1989). Negative emotional states (e. g. depression, frustration, anger, hostility, aggression) are associated with an increased risk of relapse (Glenn & Parsons, 1991). Cognitive dysfunctions - often the result of long-standing alcoholism - are an important contributing factor for relapses (Abbott & Gregson, 1981). Deficits of social competence, especially in situations with high pressure to consume alcoholic beverages, are associated with a higher risk of relapse (Burling, Reilly, Molten & Ziff, 1989; De Jong-Meyer, Heyden, Schiereck & Skaletz, 1988; Miller, Ross, Emmerson & Todt, 1989). The search for a relapse-personality has failed as the search for an alcoholic-personality has failed.

3. External factors. Relapses do often follow negative life-events (Mittag, Liebig, Freund & Schwarzer, 1991). The coping behaviour of relapsed alcoholics is impaired in comparison to abstinent alcoholics. There is a strong relationship between low economical and social status, lack of social ties and resources and relapse. Single living persons are more relapse-prone than abstinent alcoholics, living in a stable and satisfying partnership. Continued aftercare, e. g. contact to self-help groups like Alcoholics Anonymous, or a steady contact to a counsellor, is one of the most important factors for relapse-prevention and relapse-intervention (Küfner, 1990; Lauer, 1990, 1992). Unemployment increases the risk of relapse. Eighteen months after inpatient-treatment for unemployed alcoholics the relapse-rate is twice the relapse-rate of employed alcoholics (for a review: Henkel, 1990).

Some factors associated with relapses may be modified to increase the probability of continued abstinence.

2.3. What can be done to prevent or to interrupt relapses?

1. During aftercare the contact to self-help groups is an important contributing factor to abstinence. The study of Küfner and Feuerlein (1989) shows that 71.6% of the alcoholics with regular contact to self-help groups remained abstinent, but only 48% of those with irregular contact during 18 months. Professional outpatient psychotherapy and counselling is a further means for primary relapse prevention. The effect of a behavioural contract is demonstrated in a study of Ahles, Schlundt, Prue and Rychtarik (1983). The experimental group agreed to a regular aftercare participation and 73% remained abstinent; the control group had an abstinence-rate of 17% half a year after inpatient-treatment.


Thus, primary and secondary relapse-prevention are realistic goals for inpatient-treated alcoholics.

3. Some proposals for traffic safety

The drinking relapse precedes the relapse in drunken driving and driving while impaired (DWI) precedes the driving offences. Thus some proposals from alcohol relapse research can be made to improve programs for drunken driving and - perhaps traffic safety.

1. Drinking drivers and alcoholics stem probably not from the same but from different populations. This may be seen from the differences in relapse-rates. The relapse-rates of drivers with several drinking and driving offences are lower than the relapse-rates of inpatient-treated alcoholics. But this may be the result of a great number of not caught drunken drivers.

2. In treatment programs for drunken drivers the positive alcohol consumption expectations should be assessed by routine, because higher positive expectations are very strong predictors of renewed alcohol consumption. Perhaps in a few years we will have psychometric instruments for the assessment of alcohol consumption expectations with norms for alcoholics, heavy drinkers, the general population and abstinents.

3. Multiple drunken driving offenders need additional treatment and a steady, controlled and supervised aftercare.

4. The social situation of drunken drivers (e. g. single living, unemployment) needs special attention.
5. For drunken drivers the recovery of their driving licence should be limited and tied on additional conditions by behavioural contracts.

6. A stronger cooperation between traffic researchers and clinical psychology is necessary for further improvements of traffic safety in the field of alcohol and driving.

4. References