

Stage of change of cigarette smoking in drug dependent patients

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Summary

Nicotine cessation programmes in Switzerland, which are commonly based on the stage of change model of Prochaska and DiClemente (1983), are rarely offered to patients with illicit drug dependence. This stands in contrast to the high smoking rates and the heavy burden of tobacco-related problems in these patients.

The stage of change was therefore assessed by self-administered questionnaire in 100 inpatients attending an illegal drug withdrawal programme. Only 15% of the patients were in the contemplation or decision stage. 93% considered smoking

cessation to be difficult or very difficult. These data show a discrepancy between the motivation to change illegal drug consumption habits and the motivation for smoking cessation. The high proportion of patients remaining in the precontemplation stage for smoking cessation, in spite of their motivation for illicit drug detoxification, may be due to the perception that cessation of smoking is more difficult than illicit drug abuse cessation.

Key words: substance abuse; smoking; smoking cessation; motivation

Introduction

The prevalence of smoking has consistently been stated to be higher in drug-dependent patients than in the general population. For example, cigarette smoking rates among the general population are reported to be some 25% in the USA [1] and 30–40% in Switzerland [2, 3]. Rates among abusers of illicit substances in treatment programmes are reported to be more than 70% [4–9].

Various factors may account for dependence on different substances, and there is a growing body of data to explain the extent to which nicotine and other substances share similar brain pathways [10–12].

The pattern of tobacco use has been shown to be a good predictor for abuse of other psychoactive drugs [7, 13]: individuals who have never smoked cigarettes rarely use illicit drugs; the heavier the cigarette smoking, the greater the likelihood that alcohol, marijuana, and/or cocaine will be used [14, 15]. In experimental settings subjects have been observed to smoke more cigarettes after consuming single doses of amphetamine, ethanol, heroin, methadone and pentobarbital than after consuming placebos [14]. Smoking habits of patients with substance abuse disorders also suggest that they are more physically dependent on nicotine than the average smoker [16]. Drug-dependent smokers have, furthermore, been reported to

have lower smoking cessation rates [17]. On the other hand, efforts to stop smoking have been shown not to impair chemical dependency treatment outcomes, but may be associated with improved chemical dependency treatment outcomes [7, 18–20].

Despite the high smoking rates and the heavy burden of tobacco-related problems, little effort has been directed toward reducing the prevalence of smoking in these patients. Drug treatment professionals may often be reluctant to address tobacco dependence in their patients [7, 18, 21]. The fear that attempts at smoking cessation would be stressful and jeopardise drug treatment outcomes is one reason often mentioned. Other reasons are staff smoking practices, the fear that programmes may lose clients if treatment for tobacco dependence is included, a sense that smoking is a less important problem than other drugs, and, finally, tradition. In many cases also, harmful consequences of other addictive disorders may be more immediately apparent than for tobacco. Hence smoking in drug dependent patients may frequently be defined as a minor problem.

North American surveys have shown that up to 70% of recovering drug dependent patients may be interested in receiving smoking cessation counselling or treatment [6, 7, 22]. Although their ces-

sation rate may be lower than in non-opiate dependent smokers, they can successfully stop smoking [17, 22-24].

Effective nicotine addiction treatments are increasingly modelled to the specific smoking patterns as well as quitting motives and barriers in smokers in identified high-risk groups [20]. These are largely based on the stage of change model of Prochaska and DiClemente [25]. One implication of this model is that individuals will be most receptive to interventions tailored to their particular stage of change. Precontemplators may be more responsive to motivational programmes designed

to move them into the contemplation stage, and not respond to "action" strategies geared to immediate cessation. Determining motivational stage is therefore critical for the design of smoking cessation programmes for drug dependent patients.

Whereas a general trend towards smoking cessation can also be observed in Switzerland [26], smoking cessation is rarely addressed in drug dependent patients. The objective of the present study was to assess the stage of change for tobacco consumption in illicit drug dependent patients attending a specialised ward for drug detoxification.

Methods

Subjects were 100 consecutively admitted smoking patients voluntarily attending a drug withdrawal programme at the University Psychiatric Hospital in Lausanne. To attain the target sample of 100 smoking patients 102 patients entering the programme had to be screened, 2 patients being non-smokers. The time span for recruitment of the sample was 7 months. The prerequisites for hospitalisation in the unit are, among others, referral by a professional (physician, social worker etc.), a prehospitalisation consultation and a rehabilitative programme planned directly after hospitalisation in the unit. Local health policy regulations rule out coercion of addicts on inpatient withdrawal treatment, and hence all patients were admitted on a completely voluntary basis. The standard hospitalisation duration planned is 10 days for heroin and 14 days for methadone detoxification. The standard approach is motivational interviewing, a directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence [27]. Inclusion criteria were dependence on opiates or cocaine (ICD-10 criteria) and sufficient knowledge of French to read and understand the questionnaire instructions and give informed consent.

After giving informed consent all patients filled in a self-administered schedule on the first day of hospitalisa-

tion, including sociodemographic data, data on smoking and drug abuse history, the Fagerström test for nicotine dependence (FTND) [28, 29] and a stage of change algorithm [30]. The FTND is a commonly used paper-and-pencil measure of tobacco dependence for smokers. It is a self-administered 6-item questionnaire which can be completed within 2-3 minutes and yields a score between 0 and 10. There is no standard cut-off for the presence or absence of nicotine dependence; one suggested scoring system is 1 to 2 indicates very low dependence, 3 to 4 low dependence, 5 medium dependence, 6 to 7 high dependence, and 8 to 10 very high dependence. Smokers who were seriously thinking of stopping within the next 6 months were defined as "contemplators", while those who were not considering stopping were defined as "precontemplators". Patients planning smoking cessation within the following 30 days were considered to be in the "preparation" stage. The relapse stage was defined as being an actual smoker and having made at least one withdrawal attempt of at least 24 hours during the last 12 months. Ex-smokers were defined as being in the maintenance stage.

Tests of statistical significance were carried out with chi-square tests where appropriate, using the statistical package SPSS version 10.1 for Windows. Statistical significance was defined at the .05 level.

Results

Characteristics of the sample

A total of 77 (75.5%) men and 25 (24.5%) women (mean age: 31.0 years SD: 6.6 years; range: 20-50 years) were included in the study. Of these,

74 (72.5%) were attending the clinic for the first time. The remaining 28 (27.5%) had been hospitalised before.

The sample's drug consumption is given in table 1.

Smoking habits

The mean duration of tobacco consumption was 14.9 (SD: 7.0; range 2-38) years. Reported difficulty in stopping tobacco consumption, the distribution with regard to the number of daily cigarettes, the degree of nicotine dependence as measured by the Fagerström scale and the stage of change distribution are given in table 2. The mean Fagerström score was 4.66 (SD 1.14).

To estimate associations between sex, age, ordinal of hospitalisation on the one hand and stage of change on the other, the variables were cross-

Table 1

Drug consumption of the study sample over the last week.

| | | n | % |
|--------------------------|----------------------|----|------|
| Drug consumed | Opiates | 96 | 94.1 |
| | Cocaine | 47 | 46.1 |
| | Benzodiazepines | 58 | 56.9 |
| | Alcohol (dependence) | 13 | 12.7 |
| | Cannabis | 65 | 63.7 |
| Number of drugs consumed | 1 | 13 | 12.7 |
| | 2 | 26 | 25.5 |
| | 3 | 39 | 38.2 |
| | 4 | 23 | 22.5 |
| | 5 | 1 | 1.0 |

Table 2

| | | n | % | |
|------------------------------|------------------------------|----------------|------|------|
| Smoking habits. | Difficulty smoking cessation | Very easy | 0 | 0.0 |
| | | Easy | 7 | 7.0 |
| | | Difficult | 46 | 46.0 |
| | | Very difficult | 47 | 47.0 |
| Number of cigarettes per day | 0–10 | 9 | 9.0 | |
| | 11–20 | 49 | 49.0 | |
| | 21–30 | 32 | 32.0 | |
| | >30 | 10 | 10.0 | |
| Fagerström score | 1 | 0 | 0.0 | |
| | 2 | 3 | 3.0 | |
| | 3 | 10 | 10.0 | |
| | 4 | 33 | 33.0 | |
| | 5 | 31 | 31.0 | |
| | 6 | 19 | 19.0 | |
| | 7 | 3 | 3.0 | |
| | 8 | 1 | 1.0 | |
| | 9 | 0 | 0 | |
| Stage of change | Precontemplation | 75 | 73.5 | |
| | Contemplation | 8 | 7.8 | |
| | Decision | 8 | 7.8 | |
| | Maintenance | 2 | 2.0 | |
| | Relapse | 9 | 8.8 | |

tabulated and chi-square scores computed. No statistically significant interdependence was found (data not shown).

Discussion

Most drug dependent patients attending the inpatient detoxification programme of the University Psychiatric Hospital in Lausanne, Switzerland, were in the precontemplation stage with regard to tobacco consumption. This contrasts with a previous survey on alcohol dependent patients entering the alcohol inpatient detoxification programme of the University of Lausanne [31], where 42.3% were classified as precontemplators and 46.5% as contemplators. Relative figures for the general Swiss population have recently been published by Etter et al. [32]. In 1995–1996 they performed two mailed surveys in a representative sample of 742 residents of Geneva and in a representative sample of 2,270 university members. They found 74% of the smokers in the Geneva population sample to be in the precontemplation stage, 22% in contemplation, and 4% in preparation. In the university sample the corresponding figures were 72, 20, and 8%.

The high proportion of patients remaining in the precontemplation stage for smoking cessation, in spite of their motivation for drug detoxification, may be due to the perception of nicotine as a more difficult drug to withdraw. This was also found in our sample, as 93% of the patients considered smoking cessation difficult or very difficult. Furthermore, the patients often consider smoking a minor problem compared to their illegal drug con-

sumption, an attitude which is regularly shared by addiction treatment professionals. One further important possible quitting barrier may be staff who smoke, as they will be less likely to urge cessation [21]. As some nurses in our facility were smokers and smoking was only partly restricted on the ward at the time of the study, this may have biased the data toward precontemplation.

Whereas Swiss drug dependent patients may have only limited interest in smoking cessation, addressing tobacco consumption should nevertheless be a main concern in view of the high associated morbidity and mortality. The utility of tobacco counselling and non-smoking policies has been shown for several North American drug treatment facilities [19, 24, 33]. Smoke-free hospital policies for inpatient substance abuse disorder treatment programmes have, furthermore, been shown to be feasible and well accepted by patients and staff, and not to jeopardise alcohol treatment outcomes [21, 34].

There are limitations to the present study which may lessen the generalisability of the results. Patients were recruited from only one centre, which is located in the metropolitan area of the French-speaking town of Lausanne. Attitudes in the French-speaking part of Switzerland are usually considered to be more permissive with regard to legal drugs and smoking, but more prohibitive

with regard to illegal substances. Hence it is not impossible that interest in smoking cessation would be higher in German-speaking drug dependent patients. Recruitment was moreover limited to patients attending a high threshold inpatient facility, i.e. patients with a supposed high motivation to change their illegal drug consumption habits. Patients in low threshold programmes such methadone substitution may differ from our sample.

In conclusion, the present survey shows a discrepancy between the motivation to change illegal drug consumption habits and the motivation to stop smoking. Designing smoking cessation programmes for this population should take into account these patients' low level of motivation and

be especially aimed at strengthening self-efficacy and quitting motivation. As minimal-contact quit smoking strategies have shown their feasibility and efficacy in reducing tobacco consumption not only in community populations but also in addicted patients [35], they can be introduced into drug dependency programmes without incurring major cost.

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