Brit. J. Psychiat. (1984), **144**, 53–57

Alcohol Dependence and Phobic Anxiety States
I. A Prevalence Study

PENELOPE SMAIL, TIM STOCKWELL, SANDRA CANTER and RAY HODGSON

Summary: Sixty alcoholics (40 males) were assessed for agoraphobia and social phobia, and over half the sample were rated as having either or both these disorders when last drinking. Twenty one subjects had mild phobias and eleven had severe phobias. The more severely phobic males were also found to be the most alcohol dependent and those with no phobias were least alcohol dependent but this effect was not found among the females. All phobic alcoholics reported that alcohol had helped them to cope in feared situations, and almost all had deliberately used it for this purpose.

A small sample of out-patients referred for phobias alone were also asked about their use of alcohol. The majority had found it helpful in coping with fears, although more men than women had deliberately used it for this purpose.

Although some form of situational anxiety such as agoraphobia or claustrophobia has been noted clinically as a condition underlying alcoholism (Report of Royal College of Psychiatrists, 1979), until recently little research existed on the extent of phobic disorders among alcoholics. However, a study by Mullaney and Trippett (1979) investigated the prevalence rates for agoraphobia and social phobia among alcoholics admitted to a treatment unit in the north east of England, and found that one third had disabling agoraphobia and/or social phobia (rated as "fully phobic"), and one third had "borderline phobic" symptoms. That such widespread agoraphobia and social phobia have not previously been reported among alcoholics is surprising and Part I of this study presents a similar survey among a London alcoholic population and attempts to relate the findings to the degree of alcohol dependence (Edwards and Gross, 1976). Part II of this study attempts to assess the extent to which phobic disorders precede and facilitate the development of dependence and the extent to which heavy alcohol consumption worsens or even creates these conditions.

In addition to their prevalence data, Mullaney and Trippett reported that a majority of their phobic subjects stated the onset of their phobias had preceded the onset of alcohol problems. Their "fully phobic" subjects had also developed alcohol problems earlier than their "borderline" phobics. These findings suggest that agoraphobia and social phobia may have played a part in the development of alcohol dependence although the relationship between the disorders is unlikely to be clear cut. How alcoholics who suffer from phobias perceive the effects of alcohol on their fears and whether they use it as a deliberate means of coping in feared situations may be of relevance. The use of alcohol to cope with agoraphobia was noticed as early as Westphal (1871–2), who remembered that "the use of beer or wine allowed the patient to pass through the feared locality with comfort". Nevertheless, while the idea that individuals drink to relieve anxiety (and also depression) is commonly held, experimental corroboration of this belief is lacking. Research into the "tension reduction hypothesis" i.e. that alcohol reduces tension and is drunk for this effect (Cappell and Herman, 1972), has produced seemingly paradoxical findings, with evidence that alcohol can either reduce tension (Hodgson *et al,* 1979) or increase tension (Stockwell *et al,* 1982). A problem with many studies, however, has been that tension has been taken to mean almost any unpleasant mood state and has thus become so overinclusive as to be virtually meaningless. Phobias, on the other hand, have clear subjective, behavioural and physiological components (Hodgson and Rachman, 1974) and seem to provide a more rigorous example of tension than is usually found in the literature. In this study information was obtained from alcoholics, rated as phobic, as to whether they considered alcohol to be helpful in alleviating anxiety in specific situations and also whether they had used it deliberately to cope with fear, i.e. for 'dutch courage'.

Similar data was also obtained from a small sample of out-patients referred for agoraphobia or social phobia alone, with no alcohol problems known to their therapists. The use of alcohol among individuals with these disorders is again a poorly researched area, although Marks *et al* (1966) reported two alcoholics among a sample of 38 phobic patients. Quitkin *et al* (1972) also described ten cases of phobic anxiety syndrome in which drug and alcohol abuse was a malignant complication of the primary disorder. If phobias tend to precede problems with alcohol as Mullaney and Trippett's research suggests, then phobic individuals may be more at risk of developing alcohol dependence than is generally realized.

Method

Subjects

(1) *The alcoholic group:* Sixty alcoholics (20 females) took part in the survey, 52 attended in-patient units in the Greater London and Surrey areas and 8 were members of Alcoholics Anonymous. All subjects interviewed had been abstinent for a minimum two week drying-out period. Marked organic impairment was an exclusion factor.

(2) *The phobic group:* This comprised 11 females and 7 males, all of whom were receiving, or had recently received, out-patient treatment for phobias. With the exception of one patient with social phobia, all subjects had been referred primarily for agoraphobic problems. All subjects were still experiencing phobic difficulties when interviewed. No information as to alcohol use was known prior to interview.

Procedure

(a) Information was obtained from all subjects with regard to age, marital status and occupation. For alcoholics, data were also collected on length of abstinence and whether subjects were continuous or binge drinkers (binge being defined as a period of 3–21 days of consecutive drinking, regularly interspersed by periods of at least three days of abstinence).

(b) The alcoholic group completed the Severity of Alcohol Dependence Questionnaire, or SADQ, (Stockwell *et al,* 1979), followed by the Fear Questionnaire, or FQ, (Marks and Matthews, 1978). Subjects were asked to complete both questionnaires for their last typical drinking period. It was found necessary to modify the FQ for these subjects. The original 8-point scale was collapsed to a 4-point scale and the format changed to that used by Watson and Marks (1971). Subjects were asked to rate their degree of fear and avoidance as they experienced it without recourse to alcohol, i.e. without acquiring 'dutch courage'.

(c) Clinical Rating Scales: One of the two first authors then rated subjects for agoraphobia and social phobia, using two clinical rating scales devised for this study (available on request). These consist of structured interviews lasting up to half an hour, which yield three independently scored measures: (i) the range of situations avoided, (ii) the degree of panic experienced in these situations, taking account of both subjective and physiological components of fear, and (iii) the frequency of panic attacks. Drinking significantly more than usual to cope with a particular situation is rated as avoidance behaviour. These measures are each rated on a 3-point scale to give an overall rating of: 0 = no phobia, 1 = mildly phobic, 2 = severely phobic. Subjects who experienced mild situational anxiety, unaccompanied by avoidance, were not rated as phobic. Ratings were made for both social phobia and agoraphobia during subjects' last typical drinking period which, in nearly all cases, was the three month period prior to admission. When possible, the rating scales were administered two weeks later by the second author who was blind to the initial rating.

(d) Subjects who had reported fears on the FQ were then asked to select any items from the questionnaire which (i) alcohol had helped them to cope with, and (ii) alcohol had been used deliberately to cope with.

(e) The phobic group completed the same modified FQ as the alcoholic group (but without the 'dutch courage' instructions), for the period when they had first been referred for treatment. They were then assessed using the two clinical rating scales for the same period and reassessed two weeks later by a second interviewer when possible. Subjects were then asked if (i) they had ever noticed that alcohol had been helpful in overcoming their phobia, and (ii) they had ever deliberately used alcohol for this purpose. When subjects replied in the affirmative, additional information was obtained about the quantity and frequency of typical drinking for a period when phobias had been very troublesome.

Results

(1) *Reliability of clinical rating scales*

Reliability data is available for 39 subjects who were rated by a second interviewer following a two week period. For the agoraphobia rating scale there was 82 per cent agreement between rates (34/39 exact agreements). As the ratings were not normally distributed reliability coefficients were calculated by Cohen's Kappa Coefficient of Observer Agreement for Nominal Categories (Cohen, 1960). A correlation of .71 was obtained for agoraphobia and .74 for social phobia.

(2) *Prevalence data*

Over half the alcoholic sample (53 per cent) were rated as suffering from either agoraphobia or social

https://doi.org/10.1192/bjp.144.1.53 Published online by Cambridge University Press

phobia or both phobias combined during their last typical drinking period. Of these, 11 subjects (18 per cent) were rated as severely phobic, 21 subjects (35 per cent) as mildly phobic and 2 subjects were unrateable. The prevalence rate for social phobia (39 per cent) was similar to that for agoraphobia (41 per cent), with 25 per cent having both phobias to some degree. Sex, social class and whether subjects were binge or continuous drinkers were unrelated to presence of phobia, or its severity or type. The prevalence rates for both phobias combined for males and females are shown in Table I.

Using data from our inpatients only, to make the samples more comparable, the figures reported here are lower than those given by Mullaney and Trippett ($\chi^2 = 6.53$, $P < 0.05$). We rated fewer subjects as phobic than did Mullaney and Trippett and our "severely phobic" group was comparatively smaller than their "fully phobic" group, which formed one third of their sample. There were sex and social class differences between the studies, with our study including more women ($\chi^2 = 5.19$, $P < .05$) and more subjects from Social Class II, with proportionately fewer subjects from Social Class IV ($\chi^2 = 10.79$, $P < .05$).

(3) *Severity of alcohol dependence scores*

The median SADQ score for the male alcoholics was 37 (range 25–48.5) and for the females, 34 (range 20.5–47). Using the recommended cut-off point of 30 on the SADQ (Stockwell *et al*, 1983), 41 subjects were severely alcohol dependent and 19 subjects had mild to moderate alcohol dependence.

The SADQ scores for non-phobic, mildly phobic and severely phobic alcoholics were compared by analysis of variance. Among the males, the three groups differed significantly in their degree of alcohol dependence, with the non-phobic group being least dependent and the severely phobic group most dependent ($F = 5.12$, df 2 and 35, $P < .05$). No such differences were found among the female alcoholics however.

(4) *Fear questionnaire scores*

Alcoholic subjects who had been rated as phobic scored significantly higher than non-phobic alcoholics on the FQ ($P < 0.003$, $2 = 3.6$). Their scores do not differ markedly from those of the out-patient referred for treatment of phobias ($P < 0.088$, $2 = 1.74$). All subjects' scores on the Fear Questionnaire and on the three FQ sub-scales are shown in Table II.

(5) *Use of alcohol by phobic alcoholics*

All phobic alcoholics reported that alcohol had been helpful in coping with at least one situation noted in the Fear Questionnaire. All but two subjects said they had used alcohol deliberately to cope in such situations. Tables III and IV show the percentage of socially phobic and agoraphobic alcoholics who replied affirmatively to each FQ item related to their phobia.

(6) *Data from the group of phobic patients*

Using the clinical rating scales, 17 out of 18 patients were rated as having agoraphobia, 7 of whom were also rated as having social phobia, with one subject having social phobia alone. Comparing this group with the

TABLE I

Prevalence rates for agoraphobia and/or social phobia covering a sample of 60 alcoholics

	n	Non-phobic	Mildly phobic	Severely phobic	(Unrateable)
Males	40	17	15	8	0
Females	20	9	6	3	2
Total	60	26	21	11	2

TABLE II

Fear questionnaire scores of non-phobic alcoholics, phobic alcoholics and phobic patients

	n	Total fear Questionnaire Median (range)	Agoraphobia sub-scale Median (range)	Social phobia sub-scale Median (range)	Blood/injury phobia sub-scales Median (range)
Non-phobic alcoholics	26	8 (3.5–10.5)	0 (0–1)	4 (2.5–6.5)	3 (0–5)
Phobic alcoholics	32	14 (9–19.5)	5.5 (2–7)	6 (3–8)	3 (1–6)
Phobic patients	18	18.5 (12.5–26)	8 (4.5–12)	4 (4–8.5)	4 (1–8)

https://doi.org/10.1192/bjp.144.1.53 Published online by Cambridge University Press

TABLE III

Percentage of social phobics who found alcohol helpful or deliberately used alcohol in five social situations

Fear questionnaire item	Found alcohol helpful	Used alcohol deliberately
1. Talking to people in authority	71	57
2. Eating with other people	71	42
3. Being criticised	64	50
4. Being watched or stared at	64	36
5. Speaking or acting to an audience	57	43

TABLE IV

Percentage of agoraphobics who found alcohol helpful or deliberately used alcohol in five agoraphobic situations

Fear questionnaire item	Found alcohol helpful	Used alcohol deliberately
1. Travelling alone by bus, coach or train	71	59
2. Going into crowded shops	71	52
3. Going alone far from home	59	35
4. Walking alone in a busy street	47	41
5. Large open spaces	29	12

phobic alcoholics, proportionately more phobic patients were rated as suffering from severe phobia ($\chi^2 = 10.6$, $P < .01$).

When they were asked whether they had ever noticed that alcohol had been helpful in coping with their phobia, 12 of the patients replied affirmatively, with men and women not differing significantly in their replies. However, significantly more men (5 out of 7) than women (only 2 out of 11) had made deliberate use of alcohol to cope with their fears ($P < 0.05$, Fisher's Exact Test) and had also used it more frequently ($P < 0.05$, Fisher's Exact Test) during a period when their phobia had been very troublesome. Data about quantity of alcohol consumed were not analysed but the details are of interest: whereas the maximum amount of alcohol consumed reported by the women was 90 grams a *week*, four of the men drank 54, 102, 120 and 180 grams alcohol per *day* and two scored as alcohol dependent on the SADQ.

Discussion

While prevalence rates were lower in this study than those reported by Mullaney and Trippett, the results essentially support their finding that a significant proportion of alcoholics suffer from either agoraphobia or social phobia or a combination of these disorders. Over half of our sample were rated as having been phobic while drinking. Nevertheless, comparing the phobic alcoholic group with a small sample of phobic out-patients, does suggest that phobic disorders, of a severity commonly found in clinical practice, are not as widespread among alcoholics as would appear from Mullaney and Trippett's data since they formed only 18 per cent of the present sample.

The discrepancy in prevalence rates between the two studies seems to have been due primarily to differences in research method. Admittedly there were sex and social class differences between the samples but as neither variable was found to correlate with our phobic ratings, these seem unlikely causes. The studies differed over the timing of the clinical interviews and over the period for which phobias were assessed. The main difference, however, appears to be that the two sets of rating scales were not strictly comparable. Having compared Mullaney and Trippett's criteria to our own, their 'borderline' and 'fully phobic' categories seem to have defined less disabled groups respectively than our 'mildly phobic' and 'severely phobic' ratings. The studies thus appear to be describing similar populations, using overlapping but somewhat different criteria.

The findings reported here provide additional evidence in favour of the hypothesis that alcohol can reduce tension. A majority of alcoholics had suffered mild or severe phobic anxiety when last drinking and this group all attributed tension reducing properties to alcohol. All phobic alcoholics, and a majority of the phobic out-patients, reported that alcohol had helped them to cope with feared situations. Alcohol had also been used deliberately to cope with fears (for 'dutch courage') by most phobic alcoholics and a third of the phobic sample, mostly men. Can it then be said that the use of alcohol as an anxiolytic contributed to the development of dependence in our subjects? The most anxious men were also the most dependent, while those with mild phobias tended to be less dependent. However, this relationship tells us nothing about causation. While alcohol is clearly perceived as alleviating fears in the short-term, the overall long-term effect of alcohol consumption may be quite the opposite and this aspect will be considered in Paper II.

There is clearly a risk that phobic individuals, particularly men, may develop alcohol dependence. This study highlights the need to screen phobic patients for alcohol abuse as a routine part of assessment. Alcoholics should also be screened for phobic disorders and where these appear to be important in the aetiology and maintenance of drinking, exposure treatments and anxiety management techniques may

https://doi.org/10.1192/bjp.144.1.53 Published online by Cambridge University Press

weaken the link between cues for drinking and the compulsion to drink. Promoting an alcoholic's confidence in his own ability to cope with situations where he has previously used alcohol should thus help to decrease the likelihood of his drinking again. Further research should focus on the value of such an approach both in the alleviation of alcoholics' phobias and in the prevention of relapse.

References

CAPPELL, H. & HERMAN, C. P. (1972) Alcohol and tension reduction: A review. *Quarterly Journal of Studies on Alcohol,* **33,** 33–64.

COHEN, J. A. (1960) A coefficient of agreement for nominal scales. *Educational and Psychological Measurement,* **20,** 37–46.

EDWARDS, G. & GROSS, M. M. (1976) Alcohol dependence, provisional description of a clinical syndrome. *British Medical Journal, i,* 1058–61.

HODGSON, R. & RACHMAN, S. (1974) Desynchrony in measures of fear. *Behaviour Research and Therapy,* **12,** 319–27.

—— STOCKWELL, T. & RANKIN, H. (1979) Can alcohol reduce tension? *Behaviour Research and Therapy,* **17,** 459–66.

MARKS, I. M., BIRLEY, L. T. & GELDER, M. G. (1966) Modified leucotomy in severe agoraphobia: A controlled social inquiry. *British Journal of Psychiatry,* **112,** 757–69.

—— & MATHEWS, A. M. (1979) Brief standard self-rating for phobic patients. *Behaviour Research and Therapy,* **17,** 263–7.

MULLANEY, J. A. & TRIPPETT, C. J. (1979) Alcohol dependence and phobias, clinical description and relevance. *British Journal of Psychiatry,* **135,** 565–73.

QUITKIN, F. M., RIFKIN, A., KAPLAN, J. & KLEIN, D. F. (1972) Phobic anxiety syndrome complicated by drug dependence and addiction. *Archives of General Psychiatry,* **27,** 159–62.

SPECIAL COMMITTEE OF THE ROYAL COLLEGE OF PSYCHIATRISTS (1979) *Alcohol and Alcoholism.* London: Tavistock Publications.

STOCKWELL, T., HODGSON, R., EDWARDS, G., TAYLOR, T. & RANKIN, H. (1979) The development of a questionnaire to measure severity of alcohol dependence. *British Journal of Addiction,* **74,** 79–87.

—— —— & RANKIN, H. (1982) Tension reduction and the effects of prolonged alcohol consumption. *British Journal of Addiction,* **77,** 65–73.

—— MURPHY, D. & HODGSON, R. (1983) The severity of alcohol dependence questionnaire: Its use, reliability and validity. *British Journal of Addiction,* **78,** 2.

WATSON, J. & MARKS, I. M. (1971) Relevant and irrelevant fears in flooding. *Behaviour Therapy,* **2,** 275–93.

WESTPHAL, C. (1871/72) Die agoraphobie: Eine neuropathische Erscheinung. *Archives Psychiatrie und Nervenkrankheit,* **3,** 138–71, 219–21.

Penelope Smail, B.Sc., M.Sc., *Clinical Psychologist, Northwick Park Hospital, Harrow, Middlesex*

*Tim Stockwell, M.A.(Oxon), M.Sc., Ph.D., *Lecturer, Addiction Research Unit, Institute of Psychiatry, 101 Denmark Hill, London SE5 8AF*

Sandra Canter, B.Sc., M.Sc., Ph.D., *Senior Lecturer, Department of Psychology, University of Surrey, Guildford*

Ray Hodgson, B.Sc., M.Phil., Ph.D., *Top Grade Psychologist, Whitchurch Hospital, Cardiff*

*Correspondence

(Received 25 October 1982; revised 24 March 1983)