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[15] Alcohol Use, Abuse, and Dependency in Shanghai

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The use of alcohol for social and ceremonial occasions was recorded in Chinese history as early as 1760 B.C. during the Yin Dynasty (Ci-Hai Encyclopedia, 1979:936). The cultural tradition of ancient China placed alcoholic beverages at the center of social occasions, which presumably was the origin of the adage: "Without wine, there is no *li* (or etiquette)." Thus, the use of alcoholic beverages has always been accompanied by the concept of propriety and the discharging of one's role obligations in social functions, rather than that of personal indulgence.

This study would not have been possible without the painstaking efforts of a team of dedicated interviewers in Shanghai whose assistance is gratefully acknowledged. Support for the research that led to this study was drawn from diverse sources: the Pacific/Asian American Mental Health Research Center under R01 MH 36408, the Faculty Research Grant of the University of Illinois at Chicago, and the support in kind of the Shanghai Psychiatric Hospital, as well as the Bureau of Public Health of the City of Shanghai. The study was conducted jointly by the Shanghai Psychiatric Hospital (SPH) under the direction of Chang-Hua Wang, M.D., and the Pacific/Asian American Mental Health Research Center (P/AAMHRC) under the leadership of William T. Liu, Ph.D. At the time the study began, Elena S. H. Yu was a U.S. Public Health Service's National Research Service Award (NRSA) Fellow at the Social Psychiatry Research Unit, Columbia University, as part of her career development grant from the National Institute of Mental Health. The following year, William T. Liu was a Mental Health Services Research Post-doctoral Trainee at Yale University, also under the support of NIMH. The authors are grateful to the aforementioned institutions, bureaus, and appropriate heads or representatives for their assistance in the study, direct or indirect. In addition, the authors are grateful to Philip Leaf, Ph.D., John Helzer, M.D., and Peggy Peterson, M. A., for their helpful comments and suggestions in an earlier draft of this paper.

Like any general statement, exceptions are recognized. Chinese literary writers are accorded creative works produced under the influence of alcohol. Huai Shu, a famous Chinese calligrapher, was known to write his "mad cursive" (or *Kuang-cao*) style as he drank. Li Bai (generally recognized as the God of poets in the Tang Dynasty), was known for his finest creations while under the influence of alcohol (*Li Bai dou jiu shi bai pian*), as was his contemporary, poet Du Fu. It is apparent from the biographies of these historical figures that drinking beyond moderation was sanctioned in traditional China under certain circumstances. Indeed, the violation of social norms on drinking by truly creative and talented individuals was a *social privilege.* The literati, being the most prestigious of the four social classes ("*Shi, Nong, Gong, Shang*" or "the Scholar, the Farmer, the Laborer, and the Merchant") that formed the traditional Chinese society, were accordingly granted that privilege. It was condoned and sustained by the belief that creative works were enhanced by the use of alcohol.

With the establishment of diplomatic relationships with the United States in 1979, and the subsequent liberalization of domestic economy in China, comes a more rapid accumulation of material wealth to individual households or families. A new "privileged" class has become visible in Socialist China—the *geti hu* or "individual household businessmen" whose singular income has far exceeded those of any other occupational categories since the Chinese revolution in 1949. With the emergence of a new privileged class in a mercantile economy has come an observable increase of alcohol use as a form of conspicuous consumption in China. Although the privileged still represent a very small percentage of the total population, their conspicuous consumptions has attracted attention. Psychiatric hospitals throughout the country have recently noted the increase of alcohol-related problems, confirming media warnings of excessive alcohol use, which started towards the end of the 1970s.

Alcohol Use and Abuse in Socialist China

Historically, little systematic research has been conducted on alcohol use, abuse, and dependency in China.[1] The few studies conducted on alcoholism in various parts of China after the Socialist Revolution have repeatedly shown low rates of alcohol use and abuse. Using community survey data reported in papers published between 1983 and 1986, by the Chinese and some unpublished data presented in conferences, Wang showed that in the provinces of Jilin, Shandong, Sichuan, Yunnan, Hubei, and in the City of Shanghai, the combined rates of alcohol abuse and "alcoholic psychosis" (called "psychosis due to alcoholic poisoning"

in Chinese) have been reported to range from 0.04 percent to 3.5 percent of those surveyed (Wang, 1987). This is shown in Table 15–1.

In these separate studies in Jilin, Sichuan, Shandong, and Hubei, the criteria used for alcohol dependency and alcoholic psychosis were those published in 1985 in the *Chinese Psychiatric Epidemiological Survey Manual* (called *Jingshen Jibing Liuxingxue Diaocha Shouce* in Chinese). To qualify for alcohol dependency in these surveys, the subject must meet two criteria: (1) the presence of an uncontrollable craving for alcohol, that is, a desire to consume alcoholic beverages by any means and regardless of consequences; and (2) presence of withdrawal symptoms when deprived of alcohol, with or without alcoholic mental disturbances. Alcohol psychosis is diagnosed when: (1) there is a long history of alcohol intake; (2) withdrawal symptoms occur when alcohol intake is reduced or stopped; (3) the ICD-9 Criteria for an alcohol-related psychosis (291.0 to 291.9) are met;[2] and (4) there are no other psychiatric diagnoses.

Studies conducted in Yunnan Province, in Jilin Province, and the City of Shanghai were based on criteria specified on the Diagnostic Interview Schedule, Version III.[3] In the Hubei and Yunnan surveys, there was no distinction between alcohol dependency and alcoholic psychosis.[4]

Crude methodologies notwithstanding, survey after survey in China showed that alcohol use and abuse is almost exclusively a male phenomenon. There was no detailed breakdown in *rates* of alcoholism by

Table 15–1 Epidemiological Survey of Alcoholism in China

Characteristics	Jilin 1986	Shandong 1984	Sichuan 1985	Yunnan 1985	Hubei 1986	Yanbian 1986	Shanghai 1983
Diagnostic criteria	CPESM[a]	CPESM	CPESM	DIS	CPESM	DIS	DIS
Sample size							
Number of	500	29492	1000	N.A.	N.A.	N.A.	3000
households	3304	88822	3700	739	2571	1440	3098
Number of persons							
Positive cases of							
Alcohol dependence	13	32	14	26[b]	17[b]	44	14
in urban areas	—	6	N.A.	N.A.	N.A.	N.A.	N.A.
in rural areas	—	26	N.A.	N.A.	N.A.	N.A.	N.A.
Alcoholic psychosis	6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Percentages of persons							
w/alcohol dependence	0.393	0.036	0.378	3.518[b]	0.661[b]	3.056	0.452
in urban areas	0.323	0.030	N.A.	N.A.	N.A.	N.A.	N.A.
in rural areas	0.455	0.037	N.A.	N.A.	N.A.	N.A.	N.A.
Alcoholic psychosis	0.182	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

[a]The criteria for alcoholism was based on the CPESM—Chinese Psychiatric Epedimiological Survey Manual.

[a]The number represents the sum of cases of Alcohol Dependence and Alcoholic Psychosis.

Source: Wang (1987). Data have been compiled from unpublished papers (1986) prepared separately by Lu Qiu-Yun of Yunnan Province, Duan Cheng-Feng of Sicuan Province, Li Dong-Gen of Jilin Province, Ong Zheng Deng of Shangdong Province, and Wang Chang-Hua of Shanghai Psychiatric Hosptial.

occupation, even though counts of alcoholics by white- and blue-collar workers are available. The absence of population figures (which are needed as denominators for the calculation of rates) makes it difficult to interpret the number of reported cases, since these figures represent only the numerators. Similar difficulties were encountered with the data presented by income and marital status. Data obtained from drinkers suggest that, generally speaking, hard liquor (at least 50 percent proof) is the preferred drink among the abusers, with a "small" proportion drinking wine. But these estimates are woefully imprecise, and inadequate for cross-cultural comparisons of drinking problems. Thus far it appears that only the most severe cases of alcohol abuse and dependency have been recognized and counted in community surveys conducted in China. Clearly, more systematic studies should be conducted in the future.

In addition to the epidemiologic survey data, Wang juxtaposed pieces of information obtained from seventeen psychiatric hospitals in Shanghai, Ha'erbin and Changchun. From a combined total of 476 cases culled from these hospitals, he found a nearly sixfold increase in Shanghai between 1978 and 1985 in the percentage of alcoholic patients among all inpatients of mental hospitals; a nearly threefold increase in Ha'erbin between 1979 and 1985; and an almost fourfold increase in Changchun during a shorter time span, between 1981 and 1985. The data are shown in Table 15–2 (Wang, 1987). The predominance of males over females is readily observable from the date presented in Table 15–3.

The number of treated cases of alcohol abuse and dependence has increased dramatically compared to earlier reports of hospital cases between 1934 and 1937 at the Peking Union Medical College (Hsu, 1970). The number of cases reported in China is large compared to a comment attributed to Lin Tsung-Yi that "there had not been more than 10 cases of alcoholism in 17 years among the Chinese population in Taiwan"

Table 15–2 Number and Percentages of Alcoholic Patients in the Inpatient Department of Mental Hospitals: Selected Locations in China, 1978–1985

Year	1978	1979	1980	1981	1982	1983	1984	1985
Shanghai								
Number of cases	7	6	10	12	15	12	17	31
Percent alcoholic	0.19	0.16	0.29	0.36	0.47	0.40	0.59	1.10
Haerbin								
Number of cases	—	9	9	10	14	23	23	27
Percent alcoholic	—	0.58	0.51	0.59	0.83	1.30	1.26	1.58
Changchun								
Number of cases	—	—	—	1	0	1	6	13
Percent alcoholic	—	—	—	0.13	0	0.14	0.49	0.48

Source: Wang (1987). Data are compiled from unpublished papers (1986) prepared separately by Lu Qiu-Yun of Yunnan Province, Duan Cheng-Feng of Sicuan Province, Li Dong-Gen of Jilin Province, Ong Zheng Deng of Shandong Province, and Wang Chang-Hua of Shanghai Psychiatric Hospital.

Table 15–3 Sex and Age of Admission of Alcoholic Inpatients in China: Selected Locations and Years

Location in China	Year	Number of Cases	Sex		Age	
			Male	Female	Minimum	Maximum
Jilin	1977	35	35	0	23	57
Haerbin	1979–1985	115	113	2	21	67
Beijing	1959–1979	35	33	2	25	73
Yanbian, Jilin[a]	1960	80	80	—	—	—
Shanghai	1958–1981	83	80	3	21	72
Changchun, Jilin	1981–1985	60	57	3	16	72
Shengli	1974–1985	6	6	0	—	—
Qingdao	1984–1986	18	18	0	—	—
Liao-Ning	Latest	26	25	1	27	72
Shan-Xi	1966	3	3	0	30	47
Heilongjiang	1966	1	1	0	—	54
Zhejiang	1962–1982	14	14	0	30	61

[a]Large number of Korean minorities reside in this part of China.

Source: Wang (1987). Data are compiled from unpublished papers (1986) prepared separately by Lu Qiu-Yun of Yunnan Province, Duan Cheng-Feng of Sicuan Province, Li Dong-Gen of Jilin Province, Ong Zheng Deng of Shandong Province, and Wang Chang-Hua of Shanghai Psychiatric Hospital.

(Chafetz, 1964). Obviously, times have changed, and there are clear differences in drinking disorders by geographic area. What was it about the changes in time that result in differential rates of alcoholism?[5] What is it about the different places in China that result in differential rates of alcohol use, abuse, and alcoholism? These are important questions to pursue in future epidemiologic studies.

Limitations of Existing Data

Chinese statistics on drinking are imprecise for a number of reasons: First, there is lack of standardized measures for frequency and quantity, as well as lack of criteria as to what constitutes problem drinking. Second, lack of sophistication in epidemiologic concepts has often resulted in population-based rates of alcohol use, abuse, and alcoholism not being reported. Third, there are considerable cultural variations in the norms of alcohol use and abuse across the broad expanse of China. Despite these differences, however, the Chinese share a common belief that drinking is a part of good food, and that alcoholic beverages should be consumed slowly to enhance the "pleasure of drinking" (*fong-qu*). They are best enjoyed when taken in moderation. The combined principles of moderation and proper occasions for drinking generally has served as the basis for separating alcohol use and alcohol abuse in China, as in other societies. However, the lack of precise statistics on alcohol use, abuse, and alcoholism comparable to those that have been collected routinely in the United States and other countries, have rendered it almost impossible to make cross-cultural comparisons.

The absence of precise statistics was addressed when, in 1983, the Shanghai Psychiatric Hospital, in collaboration with the Pacific/Asian American Mental Health Research Center at the University of Illinois, adopted standardized procedures and criteria by using the DIS-III as the principal instrument in their psychiatric epidemiologic survey in Shanghai.

The Shanghai Diagnostic Interviews

Translation of the DIS into Chinese was undertaken by a binational research team from Shanghai Psychiatric Hospital and the Pacific/Asian American Mental Health Research Center at the University of Illinois at Chicago. The reader is referred to a separate paper for a detailed description of the process (Yu et al., 1987).

The Research Site

Interviews were conducted in 1983 among 3,108 persons selected from Xuhui District, one of the ten administrative districts in Shanghai, with a total population in the 1982 Census of more than half a million. Historically a market port, sections of Xuhui became a part of the French and the English concessions during the first half of the century. Today, it is the site of several famous educational and research institutions in Shanghai, such as the Jiaotong University, College of (Traditional) Chinese Medicine, the Shanghai First Medical College (considered one of the finest in the nation), the Shanghai Psychiatric Hospital (the leading psychiatric hospital in Shanghai), the Shanghai Institute of Mental Health (one of only two WHO Collaborating Centers in China for Research and Training in Mental Health at that time), and research institutes of the Academia Sinica.

The Shanghai Psychiatric Hospital—which serves the entire metropolis of Shanghai—and the Shanghai Institute of Mental Health jointly housed the project, and are both located there. Thus, because of the unprecedented nature of the DIS study, the choice of Xuhui as the DIS research site was made to maximize community cooperation and reduce the cost of conducting the survey by minimizing travel time for interviewers.

Sampling Procedures

Each district in the City of Shanghai consists of about ten *jiedao's* or Street Committees. Two sample *jiedao's* were chosen with a total population in 1982 of 138,179 persons. Within each *jiedao* a random cluster sampling procedure was used to select households. Lists of computer-

generated random numbers, stratified by household size, were used to select one eligible person per household for interview. Eligibility criterion consists of all persons between the ages of 18 and 64 years, inclusive. The sample proportion of households corresponded closely to the household distribution found in the two *jiedao*'s. A total of 3,350 households was identified for interview.

Use of Household Registry Records

Permission was obtained from the Bureau of Public Security to copy the household information, which included age and sex of all members in that household. The list, stratified by household size, provided the basis of pre-identifying the sample persons for the study through a process of random selection.

Details about the complex processes of training more than 50 interviewers recruited from the staff of the Shanghai Psychiatric Hospital, its affiliative-network hospitals and clinics in Metropolitan Shanghai, and the field work procedures are described in a separate report (Liu et al., 1984).

The Response Rate

The DIS Survey, being the first nongovernmental sociomedical collaboration in a large-scale community study between a major research hospital in China and individual researchers from the United States, required extreme caution in many respects. Our concern over a possibly high noncompletion rate proved unfounded because, as it turned out, some 92.8 percent of the pre-identified sample persons were successfully interviewed. The reasons for not interviewing 252 of the sample households were:

Failure to meet the age-eligibility criterion	137
"Empty" household register(i.e, unoccupied household address)	46
Household was moved but register not yet updated	17
The eligible person was outside of Shanghai	13
Person never home when the interviewer came	12
Psychotic, severe mental disturbance or retardation	10
Hepatitis, still contagious	9
Explicitly refused to be interviewed	8

From the above data, it appears that the Shanghai Household Registration System has been diligently maintained. Only 1.4 percent of 3,350 sampled households were deliberately "empty" registers (called "*konggua hu-kou*"), i.e., no one actually lived at the stated address. This is

because some people who have moved out of Shanghai are unwilling to cancel their household registration records—the basis for the *per-capita* rationing of *liang-piao* (i.e., "grain stamps" to buy rice, flour, or noodles) and cotton materials in China. An additional 0.5 percent of the sample households had moved out of Shanghai but the official registration of their departure was delayed. Insofar as the interviewers could determine, these are true delays and not disguised empty registers.

Since it was not possible to know beforehand which households have a person between the ages of 18 and 64, inclusive, we have a total of 137 households that failed to meet the age-eligibility criterion after the clusters of households were drawn. These 137 households cannot form a part of the denominator used to calculate the response rate. Even if we consider the twelve sample persons who were not home whenever the interviewer arrived as having "passively" refused to be interviewed, the noncooperation rate totals only 0.6 percent—an impressively low figure compared to the experience of survey researchers in the United States and elsewhere.

The Sample

The sample reported in this paper consists of 3,098 persons, with males representing 46.7 percent of the total and the median age was 36 years. About 15 percent were between 18–24 years of age, 30 percent between 25–34 years, and 23 percent between 35–44 years, with a total of 32 percent between 45–64 years (see Table 15–4).

The combined percentage of illiterates and those with less than 4 years of primary school education is large—about 1 in 4 of the entire sample, chiefly clustered around the older age group. Those who had completed junior high school education accounted for about one third of the sample. Some 37 percent had either a senior high school or technical vocational education. Only a little over 12 percent of the sample had college-level or higher education.

Income variations were relatively small at the time of interview, which was to be expected of that historical period when the salaries of most individuals were determined by the State rather than by market conditions.

Using the procedure for determining occupational prestige reported by Hollingshead and Redlich (1958), exactly one-third of the sample can be classified as falling in the upper one-third, some 40 percent in the middle third, and 27 percent in the bottom third. This distribution would be expected of Xuhui because of the preponderance of professional and technical personnel living in the area. Just about one-quarter of the sample were never married, exactly 70 percent were married, and 4 percent were either widowed, separated, or divorced. The percentage of respondents who had been married more than once was quite small.

Table 15–4 Demographic Characteristics of the Xuhui Sample

	Frequency	Percent
Sex		
Male	1,446	46.70
Female	1,652	53.30
Total	3,098	100.00
Age		
18–24	456	14.70
25–34	937	30.20
35–44	708	22.90
45–54	593	19.10
55–65	404	13.10
Total	3,098	100.00
Sex by Age		
Male		
18–24	212	14.66
25–44	761	52.63
45–65	473	32.71
Female		
18–24	244	14.77
25–44	884	53.51
45–65	524	31.72
Education		
Illiterate/Primary	598	19.32
Junior High	976	31.52
Senior High	700	22.61
Technical	447	14.44
College + Grad School	375	12.22
Income		
0–50 Yuan	865	28.60
51 Yuan or more	2,160	71.40
Total	3,025	100.00
Occupational status prestige score in		
Upper 1/3	1,006	33.0
Middle 1/3	1,218	40.0
Lower 1/3	822	27.0
Occupation		
Farming, labor, and other	1,483	48.4
Clerks, sales, and service	556	18.2
Professional, technical, and managerial	1,022	33.4
Total	3,061	100.0
Marital status		
Never married	802	25.9
Currently married (including cohabitation)	2,165	70.0

(*continued*)

Table 15–4 (Continued)

	Frequency	Percent
Widowed, separated, and divorced	128	4.1
Total	3,095	100.0
Number of marriages		
0	802	25.9
1	2,219	71.8
2+	71	2.3

Lifetime Prevalence of Mental Disorders

Table 15–5 presents the lifetime prevalence of mental disorders (using the DIS/DSM-III Criteria) in the total sample of 3,098 persons.[6] The data indicate that the specific rates of mental disorders are low, compared to those reported in the United States. However, as in the United States, the frequency for phobic disorders ranks first among the disorders covered in the Chinese DIS interviews, followed by alcohol abuse/dependence, and dysthymia. Major depression and schizophrenia occurred in equal frequency and appear to be uncommon in the Xuhui sample. Only 2.13 percent of the sample had at least one diagnosis (excluding alcohol abuse or dependence).

Because of the small number of alcohol abuse and/or dependence cases, efforts to determine the extent to which these diseases may serve as a risk factor for other types of mental disorders resulted in null findings. We report below our findings on drinking status and frequency of drinking.

Table 15–5 Lifetime Prevalence of Specific Disorders in the Total Sample: Xuhui, Shanghai[a]

	Frequency	(%)
Mania	—	—
Depression	6	0.19
Dysthymia	9	0.29
Schizophrenia	6	0.19
Schizophreniform	1	0.03
Phobia	46	1.48
Somatization	1	0.03
Panic	2	0.06
Obsessive-compulsive	2	0.06
Alcohol abuse/dependence	14	0.45
Any Core Diagnosis[b] except alcohol	66	2.13

[a]The prevalence rates are based on the total sample (N = 3,098).

[b]Any core diagnosis refers to any of the above nine diagnoses.

Drinking Patterns

The DIS alcohol section only assesses alcohol abuse, dependence, and patterns of problem drinking. There was concern that these problems may be relatively rare in China as the literature had suggested. At the recommendation of the Institutional Review Board, a question was added in the Shanghai DIS Study to determine just what percentage of the population drinks and how often the responders drink.[7] Table 15–6 shows that the majority of the Chinese (77 percent of 3,098 respondents) are nondrinkers. Among those who drink, most (88.5 percent of 699 persons) are "sometimes" or "occasional" drinkers, rather than "frequent" drinkers. When cross-tabulations were made between frequency of drinking and the lifetime prevalence of specific disorders, few variations were found in the number of cases with specific mental disorders.

Table 15–6 also shows a lack of overlap between alcohol abuse and dependence cases with lifetime prevalence cases of other specific mental disorders. The lack of overlap is, as mentioned earlier, most likely a result of the extremely small number of prevalence cases of mental disorders found in the study, and the paucity of drinkers in the sample. As a group, drinkers (which include the occasional, sometimes, and often drinkers) compared with nondrinkers do show some risks for specific mental disorders, particularly panic disorders (risk ratio = 3.5).

Symptoms of Alcoholism

Tables 15–7a, b, and c examine the symptom-specific prevalences. Of 3,098 respondents in Xuhui, only 52 persons (or 1.7 percent) reported ever drinking daily for a month or more (Table 15–7a). Among the latter, some 38 percent reported daily or weekly heavy drinking, and 29 percent admitted to drinking as much as a fifth of liquor in one day or

Table 15–6 Lifetime Prevalence of Specific Disorders Among Alcoholics: Xuhui, Shanghai

	Alcohol Dependence/ Abuse (N = 14) Prevalence	Drinkers: Occasional, Sometimes, Often (N = 699) Prevalence	Drinkers: Occasional, Sometimes (N = 619) Prevalence	Drinkers: Often (N = 80) Prevalence
Mania	—	—	—	—
Depression	—	0.14 (1)[a]	0.16 (1)	—
Dysthymia	—	0.29 (2)	0.32 (2)	—
Schizophrenia	—	0.14 (1)	0.16 (1)	—
Schizophreniform	—	—	—	—
Phobia	—	0.86 (6)	0.97 (6)	—
Somatization	—	0.14 (1)	0.16 (1)	—
Panic	—	0.14 (1)	0.16 (1)	—
Obsessive-compulsive	—	—	—	—
Any core diagnosis except alcohol	—	1.57 (11)	1.78 (11)	—

[a]Number in parentheses are frequencies.

Table 15–7a Individual Symptom Frequencies For Those Ever Drunk Daily for a Month or More: Xuhui, Shanghai[a]

Dis Item Number	Symptom	Proportion of Those Drinking Daily for a Month or More Who Endorsed This Item		
		%	Freq.	N
150	Family objected to respondent's drinking	11.54	6	52
151	Respondent thought himself an excessive drinker	23.81	5	21
152	Fifth of liquor in one day, 4 bottles of beer	28.85	15	52
153	Daily or weekly heavy drinking	38.46	20	52
155	Told physician about drinking problem	15.38	8	52
156	Friends or professionals said drinking too much	15.38	8	52
157	Wanted to stop drinking but couldn't	7.69	4	52
158	Efforts to control drinking	3.85	2	52
159	Morning drinking	0.00	0	52
160	Job troubles due to drinking	3.85	2	52
161	Lost job	0.00	0	52
162	Trouble driving	0.00	0	52
163	Arrested while drinking	0.00	0	52
164	Physical fights while drinking	0.00	0	52
165	Two or binges	0.00	0	50
166	Blackouts while drinking	4.00	2	50
167	Any withdrawal symptom	0.00	0	50
168	Any medical complication	6.00	3	50
169	Continued to drink with serious illness	8.00	4	50
170	Couldn't do ordinary work without drinking	6.00	3	50

[a]Please see footnote 7 in the text.

four bottles of beer. Some 24 percent of those who drank daily thought of themselves as being an excessive drinker. In 15 percent of the cases, the respondent had told a physician about his drinking problem, and in yet another 15 percent of the cases, the respondent had received warnings from friends and professionals about his drinking problems. In 12 percent of the cases, the respondent's family objected to his drinking.

Of those who had ever drunk daily for a month or more, 38 persons are without alcohol disorders (Table 15–7b). About 16 percent of these 38 persons drank heavily on a daily or weekly basis. In 11 percent of the cases, the respondent drank as much as a fifth of liquor in one day or 4 bottles of beer. In 16 percent of the cases, the respondent had told a physician about his drinking problem.

Among those who had ever drunk daily for a month or more and developed alcohol disorders, all drank heavily on a daily or weekly basis. In two-thirds of these cases, families objected to the respondent's drinking. As well, a similar percentage of friends or professionals thought the respondent was drinking too much. Spearman correlation of symptom rankings between those with alcohol disorders (Table 7c) and those without alcohol disorders equals 0.49, which is statistically significant at the .05 level.

Table 15–7b Individual Symptom Frequencies Among Ever Daily Drinkers Without Alcohol Disorders: Xuhui, Shanghai[a]

DIS Item Number	Symptom	Proportion of Those Without Alcohol Disorders Who Endorsed This Item		
		%	Freq.	N
150	Family objected to respondent's drinking	0.0	0	38
151	Respondent thought himself an excessive drinker	0.0	0	7
152	Fifth of liquor in one day, 4 bottles of beer	10.53	4	38
153	Daily or weekly heavy drinking	15.79	6	38
155	Told physician about drinking problem	15.79	6	38
156	Friends or professionals said drinking too much	5.26	2	38
157	Wanted to stop drinking but couldn't	0.0	0	38
158	Efforts to control drinking	0.0	0	38
159	Morning drinking	0.0	0	38
160	Job troubles due to drinking	0.0	0	38
161	Lost job	0.0	0	38
162	Trouble driving	0.0	0	38
163	Arrested while drinking	0.0	0	38
164	Physical fights while drinking	0.0	0	38
165	Two or binges	0.0	0	38
166	Blackouts while drinking	0.0	0	38
167	Any withdrawal symptom	0.0	0	38
168	Any medical complication	0.0	0	38
169	Continued to drink with serious illness	0.0	0	38
170	Couldn't do ordinary work without drinking	0.0	0	38

[a]This refers to respondents who reported having drunk daily for a month or more in their lifetime.

Lifetime Rates of Various Drinking Categories

Among those who had ever drunk daily for a month or more, only one was a total abstainer at the time of the interview (Table 15–8). Forty percent are classified as nonheavy/nonproblem (social) drinkers, nearly 20 percent (19.23) are problem drinkers even though they are not alcoholic—that is, they have had at least one alcohol-related problem in their lives, even though they have not had enough to qualify for a DSM-III diagnosis of alcoholism. The latter group may be mostly sporadic drinkers, or they may have been (recent) drinkers who have not yet developed symptoms. Another 12 percent are classified as heavy/nonproblem drinkers—that is, they have had a period when they regularly consumed seven or more drinks at least one evening a week but have never had any social, legal, or medical problems related to alcohol and no withdrawal symptoms. Helzer et al. (1986) suggest that "it would appear that most of those who consume that much alcohol are destined to have at least some problems from it." Some 27 percent of the cases fit the category of "Dependence with or without abuse" and not one case of alcohol abuse only was found in the Xuhui sample, even though it is considered the less severe form of the alcohol disorders.

Table 15–7c Individual Symptom Frequencies Among Ever Daily Drinkers With Alcohol Disorders: Xuhui, Shanghai[a]

DIS Item Number	Symptom	Proportion of Those with Alcohol Disorders Who Endorsed This Item		
		%	Freq.	N
150	Family objected to respondent's drinking	66.67	6	9
151	Respondent thought himself an excessive drinker	55.56	5	9
152	Fifth of liquor in one day, 4 bottles of beer	66.67	6	9
153	Daily or weekly heavy drinking	100.00	9	9
155	Told physician about drinking problem	22.22	2	9
156	Friends or professionals said drinking too much	66.67	6	9
157	Wanted to stop drinking but couldn't	44.44	4	9
158	Efforts to control drinking	22.22	2	9
159	Morning drinking	0.0	0	9
160	Job troubles due to drinking	22.22	2	9
161	Lost job	0.0	0	9
162	Trouble driving	0.0	0	9
163	Arrested while drinking	0.0	0	9
164	Physical fights while drinking	0.0	0	9
165	Two or binges	0.0	0	7
166	Blackouts while drinking	28.57	2	7
167	Any withdrawal symptom	0.0	0	7
168	Any medical complication	42.86	3	7
169	Continued to drink with serious illness	57.14	4	7
170	Couldn't do ordinary work without drinking	42.86	3	7
Spearman Correlation of Symptom Rankings Between Those With and Without Alcohol Disorders ($N = 20$)		$r = 0.492$; $p = 0.0275$		

[a]This refers to respondents who reported having drunk daily for a month or more their lifetime.

The Course of Alcoholism

Table 15–9 examines the course of alcoholism. Out of 43 persons for whom data on intoxication are available, 56 percent (or 24 persons) reported having ever been intoxicated. The mean age of first intoxication for men is 26.26 years. Alcoholics, on average, experienced their first intoxication at a much younger age (23.71 years) compared with nonalcoholics (28.38 years). In both cases, these ages are much higher in China than those reported by Helzer et al. based on data from the ECA studies conducted in the United States.

The age of onset of alcoholism is also somewhat delayed in China (33.5 years) as compared with findings obtained from the United States. The course of illness, however, appears to be of similar duration in China as in the United States in that 8.83 years elapsed in the Shanghai study between the time of first intoxication to first alcohol symptom, compared to about 8 years in the United States. The mean number of lifetime symptoms is just over 5 in China, as in the United States.

We found only one case of "alcoholic in remission," that is, absence of

Table 15–8 Lifetime Rates of Various Drinking Categories Among Ever Daily Drinkers for a Month or More: Xuhui, Shanghai

Lifetime Drinking Category[a]	%	Freq.	N	Mean Ages
Nonheavy/nonproblem (social) drinkers	42.31	22	52	51.64
Heavy/nonproblem drinkers	11.54	6	52	49.17
Problem drinkers (not alcoholic)	19.23	10	52	52.30
Alcohol abuse only	0.00	0	52	—
Dependence with or without abuse	26.92	14	52	50.71
Total	100.00	52		51.23
6-Month Prevalence of Alcoholism (abuse and/or dependence combined)	11.36	5	44	—
(Mean Age of the entire sample is 38.13 years)				

[a]One case of total abstention at the time of interview was found among the respondents who admitted having ever drunk daily for a month or more in their lifetime. That person's age was 38 years. The respondent is counted in the nonheavy/nonproblem (social) drinkers category.

Table 15–9 Onset, Severity, and Course of Alcoholism in Xuhui, Shanghai

	Men	Total
Mean Age First Intoxicated (If Ever)		
Total sample	26.26 (23)[a]	26.21 (24)
Alcoholics only[b]	23.71 (7)	23.88 (8)
Nonalcoholics[c]	28.38 (13)	28.38 (13)
Mean value among alcoholics		
Age of onset of alcoholism	33.50 (6)	33.50 (6)[d]
Number of years from first intoxication to first alcohol symptom	8.83 (6)[e]	8.83 (6)
Mean number of lifetime symptoms	5.25 (8)	4.89 (9)
Mean values among alcoholics in remission[f]		
Age last symptom	47.00 (1)	47.00 (1)
Duration of alcoholism in years	2.00 (1)	2.00 (1)
Mean number of lifetime symptoms	4.00 (1)	4.00 (1)
Mean number of lifetime alcohol symptoms for duration of alcoholism 0–10 years	4.00 (1)	4.00 (1)
Mean values among alcoholics not in remission		
Mean number of lifetime symptoms	6.40 (5)	6.40 (5)
Mean number of lifetime symptoms 0–10 years	5.33 (3)	5.33 (3)
Mean number of lifetime symptoms 11+	8.00 (2)	8.00 (2)
	(%)	Freq.
Ever Intoxicated	55.8	24
Never Intoxicated	44.2	19
Total number of persons with data	100.0	43

[a]Numbers in parentheses are frequencies. Data for women not presented because there was only one case.

[b]There was one male alcoholic with missing data on age.

[c]Some persons who fall in this category have missing data on age of first intoxication.

[d]Three persons had missing data.

[e]Two persons had missing data.

[f]Remitted Alcoholic = No alcohol symptoms for at least one year prior to interview.

alcoholic symptoms for at least 1 year prior to the interview. For this one person, the age of the occurrence of last symptom was in the late 40s, a pattern rather consistent with a delayed onset in China as compared to the United States. The occurrence of the first and last symptoms is only 2 years. The average number of lifetime symptoms for this one case of alcoholic in remission compared with those not in remission differed somewhat in that the symptom count is higher among the latter than the former group. In the case of alcoholics not in remission, the symptom count increases with duration of illness.

Risk Factors and Correlates of Alcoholism

Data on risk factors for alcohol disorders (abuse and/or dependence) in Shanghai are presented in Table 15–10. First, gender differences in alcohol abuse/dependence are rather striking. Drinking disorders are associated with being male rather than female. Additional data collected separately from the same sample show that while only 7.45 percent of Xuhui women (18–64 years old) drink, some 40 percent of the men in that same age group are drinkers, either occasionally, sometimes, or often (table not presented due to space limitations). Drinking is a predominantly male practice. Second, the percentage who drink (26%) is highest for the oldest age group in the study, those 45–64 years of age. The two younger age groups (18–24 and 25–44 years) appear to have similarly low percentages of drinkers (21%). On the whole, the data suggest the possibility that drinking behavior may not have been part of the early adulthood socialization of Xuhui citizens. This conjecture makes sense in the context of the spartan life that characterized China from 1949 when the People's Republic was established, to 1979 when contact with the West was finally permitted as a result of the "normalization" of the U.S.–China relationship. Those 45–64 years old in 1983 were 11–30 years old in 1949. For the next younger age group (25–44 years), the oldest member would have been only 10 years old when the People's Republic of China was established. As these age cohorts of Chi-

Table 15–10 Lifetime Prevalence of Alcoholism by Sex and Age: Xuhui, Shanghai (N = 52)[a]

Age Group	Men (%)	Women (%)	Total (%)
18–24	— (0/0)	— (0/0)	— (0/0)
25–44	42.86 (3/7)[b]	0.00 (0/2)	33.33 (3/9)
45–65	23.81 (10/42)	100.00 (1/1)(1)	25.58 (11/43)
Total	26.53 (13/49)	33.33 (1/3)	26.92 (14/52)

[a]Data available only on fifty-two persons who reported having ever drunk daily for a month or more. See footnote 7 in the text for clarification.

[b]Numbers in parentheses are the numerators and denominators used in the calculation of rates.

nese entered early and young adulthood, they would have experienced the austere life required of a country that has had to heal from the wounds of 8 years of Sino-Japanese War (1937–1945) and 3 years of Civil Wars (1946–1949), followed by periods of poverty and tremendous food shortage such that few families or individuals could afford the luxury of drinking alcoholic beverages on a regular basis. In epidemiologic parlance, exposure to the agent (i.e., alcoholic beverages) may have been unusually minimal, or may have occurred much later in life for most Chinese under 64 years of age in 1983, and certainly for those in the 25–44-year age group, because of peculiar sociohistorical contexts.

Note, however, that when lifetime prevalence of alcoholic disorders by sex and age are calculated using the method suggested by Helzer et al. (Table 15–10), the prevalence rate for the males in the oldest age group (23.81 percent) is lower than that for the 25–44-year age group (42.86 percent). Notwithstanding the small number of cases in Xuhui who reported ever drinking daily for a month or more, this drop in lifetime prevalence with age is similar to that reported by Helzer et al. in the United States. It occurs even though there are more drinkers in the oldest age group of the Shanghai sample (26 percent among the 45–64-year age group, compared with 21 percent for 25–44-year age group). Problems of recall during the interview and/or higher chances of early deaths among the alcoholics are likely reasons for the observed pattern.

The argument of an age-cohort effect in alcoholism remains to be tested and, we suspect, will possibly be found in future studies in China because of the rapid changes the country is experiencing. Such changes have made it possible for more people to find work even though their wages may be low. They have also resulted in the greater availability of alcoholic beverages for domestic consumption. The result is that more and more people can afford to purchase alcoholic drinks now than in the past. For those in the 44–65-year age group, the economic employability of their grown children has resulted in their having a little more cash than in the past to spend on things for sheer pleasure. Alcoholic drinks are a privilege to be enjoyed by the older folks. For those in the 25–44-year age group, the new economy has created a sense of optimism and expansiveness such that going out drinking with friends for fun is no longer "decadent." But the older group may be much more able to control their drinking to a moderate level, compared to the younger ones. The net effect of these forces may result in more instances of problem drinking, and higher lifetime prevalences of alcoholism for the 25–44-year age group (compared with those in the 45–64-year age group) that were beginning to emerge in the 1980s, despite their presumably low and later exposure to alcoholic beverages.

Table 15–11 shows that more than half of all daily drinkers in Xuhui are heavy drinkers (58.82 percent). Close to half (46.67 percent) of all

Table 15–11 Risk Factors and Correlates for Heavy Drinking and Alcoholism: Xuhui, Shanghai

	Proportion of All Daily Drinkers Who Are Heavy Drinkers		Proportion of Heavy Drinkers Who Are Alcoholic	
	Percent	(Cases)	Percent	(Cases)
Total sample	58.82	(30/51)[a]	46.67	(14/30)
Risk factor or correlate				
Number of marriages				
0	100.00	(2/2)	50.00	(1/2)
1	59.09	(26/44)	46.15	(12/26)
2+	40.00	(2/5)	50.00	(1/2)
Years of education				
Illiterate/primary	63.33	(19/30)	36.84	(7/19)
Junior high	60.00	(6/10)	50.00	(3/6)
Senior high	100.00	(4/4)	75.00	(3/4)
Technical/vocational	33.33	(1/3)	100.00	(1/1)
College/graduate school	—		—	
Occupational status				
Upper 1/3	38.46	(5/13)	60.00	(3/5)
Middle 1/3	53.85	(7/13)	71.43	(5/7)
Lower 1/3	72.00	(18/25)	33.33	(6/18)
Residence at time of interview[b]	N.A.		N.A.	
Childhood conduct group positive[c]	N.A.		N.A.	
Intoxicated before age 15				
No	56.10	(23/41)	52.17	(12/23)
Yes	100.00	(1/1)	100.00	(1/1)

[a]One person in the denominator has missing data on heavy drinking.

[b]The study was conducted entirely in the urban area.

[c]This section of the DIS was not included in the Shanghai DIS study because it required extensive modifications and testing of the individual items to ensure that they are culturally appropriate.

heavy drinkers are alcoholic. Examination of the risk factors or correlates of drinking indicate that the number of marriages is not associated with heavy drinking or with alcoholism among those who drink heavily. This is because the social conditions in China are different than in the United States. Divorce is less prevalent and more difficult to obtain in China than in the United States. Likewise, multiple marriages are rare. Second, age of first intoxication and the course of illness occurs about a decade later than in the United States, with the result that the occurrence of the first symptoms in China is likely to emerge in the context of (the first and only) marriage for most people. As the young delay marriage longer, more frequent and heavy drinkers may be found among the never-married group in the future. The data in Table 15–11 suggest the possibility of such a trend.

Education shows an intriguing pattern in that close to two-thirds of drinkers with primary education or less, as well as drinkers with only junior high school education, are heavy drinkers. Only one person with a vocational or technical school education was classified as a heavy drinker. All of the drinkers who have a senior high school education are heavy drinkers, suggesting that in China, higher education is associated with heavy drinking. Likewise, among the heavy drinkers, having a higher education seems to be associated with being an alcoholic. Seventy-five percent of the heavy drinkers with senior high school education are alcoholic, while only 37 percent of the heavy drinkers with primary education or less are alcoholic. Caution is warranted in the interpretation of the data because the number of cases is too small. It may be important in future studies to examine the concept of power and social privilege in alcohol use and abuse across cultures. It would seem that, in China, the highly educated, the businessmen, and the old have the opportunities to drink regularly as a form of social privilege. Among these drinkers, we hypothesize that the psychological need for power and the growing acceptance of alcohol as a coping mechanism for life stress may explain why some develop drinking problems while others do not.

Inconsistent results are obtained when one examines occupational status. There seems to be an inverse association between heavy drinking and lower occupational prestige. Some 72 percent of all drinkers in the lower-third of occupational status are heavy drinkers compared to only 38 percent in the upper-third category, whereas, among the heavy drinkers, a higher occupational prestige is associated with becoming an alcoholic. Data on age of intoxication provides strong evidence of a much later age of intoxication for the Chinese sample compared with the U.S. data.

Questions on residence at the time of interview were not asked in the Shanghai Study because the sample is a uniformly urban one. Information on childhood conduct disorders are not available because that section of the DIS required major modifications before it could be used in China and was not included in the study.

Discussion

The Shanghai data present a composite picture of drinking habits among the Chinese that is distinctly different from those of Americans. First, a large majority of Chinese do not drink at all. But when they do, we hypothesize that the change from nondrinking to drinking status may be associated with the concept of power and social privilege, in the sense that it is men and not women who drink heavily and, among heavy drinkers, those whose education was low or whose occupations are more prestigious appear to have higher chances of becoming an alcoholic. The

classic examples of several literary figures in China have been mentioned. The DIS data collected in Xuhui suggests to us a possible avenue for future research into the relationship between drinking behavior in China and the concept of social power and social privilege. In ancient China, being a literary figure was accorded the highest social status. In socialist China undergoing modernization in the 1980s, being a *geti hu* or an individual household businessman has become socially desirable and for which conspicuous consumption is necessary in order to demonstrate one's newly acquired economic power and social entitlements. In both instances across different time spans, a greater incidence of public intoxication has been observed to be associated with these socially prestigious occupations. That drinking frequency was low in the past is credible in light of the near absence of conspicuous consumption in a population struggling to move beyond sheer subsistence level. As the individual possesses more cash to spend beyond the basic necessities of life, avenues for pleasure-seeking will be pursued by those who desire to assert their newly gained social status. The principle of moderation embedded in the Confucian concept of "the way of the mean" and the notion that drinking is a social privilege may have served to keep problem drinking in relatively low frequencies in China, although that will change. Clearly, what is needed in future studies is further validation of our observations and conjectures.

Second, there has been a tendency for past researchers to consider all Chinese as alike and to ignore the possibility of geographic variations in drinking behavior among the different Chinese populations. The recent review of data in Wang's unpublished paper suggests the need to conduct surveys in different parts of China in order to understand better the regional differences in drinking status and alcoholism. The reported rates that Wang found in his review of data for internal use only are certainly much higher than those we obtained in the first DIS survey in Shanghai. The educational and occupational mix of the Xuhui population needs to be carefully considered before one draws any firm conclusions about drinking behaviors in China. This is especially important in light of the interesting relationships we uncovered between education and occupation with heavy drinking as compared with alcoholism. Xuhui, after all, is not Shanghai; it is certainly not China.

Third, there may have been cultural variations in the public sensitivity as to what is reportable alcoholic symptoms. Thus, persons who drink heavily on weekends or at regular intervals spaced further apart because of financial constraints may possibly have reported themselves and be viewed by others as mild drinkers if not nondrinkers. This may account for the public as well as professional (mis)perceptions among Chinese psychiatrists themselves that problem drinking is rare in Chinese populations. The changes that were made in the DIS questions as they were used in Shanghai resulted in the absence of information on

episodic problem drinkers and mild cases of alcohol abuse or dependency.

Fourth, drinking behaviors are socialized at later ages in Shanghai than in the United States. This delay of as much as 10 years has beneficial consequences in that it shifts the age of first intoxication upwards from early teens to mid-20s, the onset of alcoholism to the 30s, and the mean age of alcoholics in remission to the 40s. Differences in the availability of treatment opportunities in Shanghai may be associated with the different levels of public sensitivity to problem drinkers.

Fifth, it is remarkable that the average number of symptoms reported by alcoholics and the course of illness in China, are almost identical to the U.S. patterns, thereby suggesting a possible course of illness that is, perhaps, more biophysiologically than socially determined. Alternatively, the similarity in the course of illness may be an artifact of the methodology used in extracting information on psychiatric disorders. It behooves future researchers to examine this issue further.

Notes

1. Alcohol research based on data collected among the ethnic Chinese is available, and generally falls into two categories: (1) studies concerned with reactions to alcohol, and (2) studies focusing on ethnic patterns of alcohol consumption and abuse. The physiological studies have been greatly influenced by the work of Wolff, who reported in 1972 that 83 percent of the Asian subjects in his study showed a marked flushing response that was observed in fewer than two percent of the Caucasian subjects (Wolff, 1972). Since then, evidence to support Wolff's earlier findings continue to accumulate (Ewing et al., 1974; Stamatoyannopoulous et al., 1975; Reed et al., 1976; Hanna, 1978; Seto et al., 1978). Studies focusing on ethnic patterns of alcohol consumption and abuse, which include samples of the Chinese population rather than anecdotal observations, have reported inconsistent findings.

2. These are: delirium tremens (291.0); Korsakov's psychosis, alcoholic (291.1); other alcoholic dementia (291.2); other alcoholic hallucinosis (291.3); pathological drunkenness (291.4); alcoholic jealousy (291.5); other (291.8); unspecified (291.9).

3. In addition, the Yunnan Interview Schedule also contained the Self-Administered Alcoholism Screening Test (SAAST) as screening instrument.

4. The data collected in the border town of Jilin Province where large numbers of Korean minority populations reside cannot always be compared with those obtained elsewhere in China because of cultural and genetic differences between these two groups. Reported studies of alcoholics among Korean minorities in China found that they consume alcohol frequently and in large quantities, as well as at an earlier age.

5. One thing is quite clear: the emergence of frequent drinking and the risk of alcoholic disorders are more likely in societies that have moved beyond the level of sheer subsistence. China in the 1930s was characterized by massive poverty. Conspicuous consumptions occurred only in an extremely small segment of the total population.

6. Ten of the 3,108 persons interviewed suffered from mental illness or mental retardation so severe that they could not be interviewed directly. Although a proxy interview was conducted with the respondent's caretaker in the same household, the latter's lack of precise information about the specificity of some symptoms, the age of onset for reported clusters of symptoms, and the course of illness made it impossible to subject their interview

protocols to the same computer algorithms which were used in generating diagnostic information from the remaining 3,098 completed interviews.

7. The inclusion of this question represents a compromise solution between two groups of decision makers: the Institutional Review Board that supervised the survey, which wanted to shorten different sections of the DIS instrument (such as the somatization, depression, phobia, schizophrenia, and other questions) for fear of negative consequences from respondents as yet unaccustomed to this type of structured interview; and the researchers who wanted to keep all the DIS questions identical to those used in the ECA survey in the United States in order to facilitate cross-cultural comparisons. Since knowledge of the magnitude of alcohol problems in several populations abroad was to come only after the results of the ECA studies in the United States was published, and existing reports within China conveyed the picture of extremely low prevalence of alcohol problems at the time the study was about to begin, it was thought that the alcohol section would be a "safe" place to demonstrate the researchers' willingness to heed advice while the rest of the DIS questions used in Shanghai remained unaltered. Thus, a decision was made to introduce a skip question to the DIS-Alcohol section, which translates into English as follows: "Do you drink?" Respondents who indicated that they do drink—even if only a little or only rarely—were then asked (N=699 persons because two other persons had missing data on this first question) a second question: "Have you ever drunk daily for a month or more?" those who reported in the negative (N=644 because two more persons had missing data) were not asked the DIS alcohol questions. The decision to use the latter question as a criterion for asking the DIS alcohol questions was made after consulting the criteria for alcohol abuse and/or dependence described in the DSM-III published by the American Psychiatric Association. The data in this paper are thus based on a total of only fifty-two persons (one other person eligible for the question had missing data) who admitted that they drink and had ever drunk daily for a month or more. Moreover, it was thought that DIS Q.154 is impolite to ask if the respondent already answered "no" to DIS Q.153. Q.154 was therefore eliminated. Page restriction in printing the instrument led to the dislocation of the question order for DIS Q.151, which ended up following Q.153 instead of preceding it as it is in the English version. This change in question order led to fewer respondents for Q.151 than for Q.152 or Q.153. The objective of keeping the DIS interviews within reasonable limits was made at a great cost—the loss of valuable information about a social behavior that appears to be a growing problem in certain parts of China.

References

Anonymous (1979). *Ci-Hai Encyclopedia.* Shanghai: Shanghai Ci-Dong Publishing Co.

Chafetz, Morris E. (1964). Consumption of alcohol in the Far and Middle East. *N. Eng J. Med.* 271,6:297–301.

Duan, Cheng-Feng (1986). An epidemiologic survey of alcohol dependency in Chong-Qing (in Chinese). Unpublished paper read at the Conference on Alcohol Dependency and Related Problems held in Beijing in October 1986.

Ewing et al. (1974). Alcohol sensitivity and ethnic background. *Am. J. Psychiatry* 131, 2 (February): 206–210.

Hanna, Joel M. (1978). Metabolism responses of Chinese, Japanese and Europeans to Alcohol. *Alcoholism: Clinical and Experimental Research,* 2, 1 (January):89–92.

Helzer et al. (1986). Alcoholism—North America and Asia: Comparison of population surveys with the DIS. First draft.

Hollingshead, A. B. and Redlich, F. C. (1958). *Social Class and Mental Illness,* a Community Study. New York: Wiley.

Hsu, Francis L. K. (1970). *Chinese and Americans.* New York: The Natural History Press.

Li, Dong-Gen (1986). Use of the DIS and the diagnostic criteria in diagnosing alcohol

dependency. Unpublished paper read at the Conference on Alcohol Dependency and Related Problems held in Beijing in October 1986.

Liu, William T., et al. (1984). The 1983 Shanghai Psychiatric Epidemiologic Survey: Research objectives, procedures, and field operations. Working Paper No. 103b of the Shanghai Project. Chicago: P/AAMHRC.

Lu, Qiu-Yun (1986). Report of a sample survey of alcohol-dependency and related problems in Yunnan's Simao and Xishuangbanna areas (in Chinese). Unpublished paper read at the Conference on Alcohol Dependency and Related Problems held in Beijing in October 1986.

Ong, Zheng-Deng (1986). Report of an epidemiologic study of alcohol and drug abuse in Shandong (in Chinese). Unpublished paper read at the Conference on Alcohol Dependency and Related Problems held in Beijing in October 1986.

Reed, T. Edward, et al. (1976). Alcohol and acetaldehyde metabolism in Caucasians, Chinese and Amerinds. *CMA Journal* 6 (November 6):851–55.

Seto, A., et al. (1978). Biochemical correlates of ethanol-induced flushing in Orientals." *Journal Stud. Alcohol* 39:1–11.

Stamatoyannopoulous, G.; Chen, Shi-Han; and Fukui, Miyoshi (1975). Liver alcohol dehydrogenase in Japanese: High population frequency of atypical form and its possible role in alcohol sensitivity. *Am. J. Hum. Genet.* 27:789–96.

Wang, Chang-Hua (1987). Alcohol dependency and alcohol abuse in parts of China (in Chinese). Unpublished. Copies available on request.

Wolff, P. H. (1972) Ethnic differences in alcohol sensitivity. *Science* 175:449–50.

Yu, Elena; Ming-Yuan Zhang; Zheng-Yi Xia; and William T. Liu (1987). Translation of instruments: Procedures, issues, and dilemmas. In William T. Liu (ed.), *The Pacific/Asian American Mental Health Research Center. A Decade Review of Mental Health Research, training, and Services. A Report to the National Institute of Mental Health.* Chicago: P/AAMHRC, pp. 75–86.