

The Zurich study

XX. Social Phobia and agoraphobia

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Summary. The problems in association with agoraphobia and social phobia were examined in an 11-year prospective longitudinal study of a Swiss cohort of young adults. The weighted prevalence rates according to DSM-III were 2.9% for agoraphobia and 3.8% for social phobia. Although the problem of agoraphobia was greater in females, an equal sex ratio was observed for social phobia. There was a significant degree of comorbidity between the two subtypes of phobia, with females exhibiting a significantly greater frequency of co-occurrence of both disorders than males. The course of the two disorders was quite similar. In general, subjects with both disorders reported a more severe course. Assessment of comorbidity of phobias and other disorders revealed that agoraphobia was most significantly associated with extended neurasthenia, sexual problems, and the consumption of cannabis. On the other hand, social phobia was associated with other disorders than agoraphobia, with the strongest associations emerging for simple phobia, extended insomnia, and alcohol abuse. These findings support the validity of the distinction between different subtypes of phobia. The longitudinal analysis revealed that also phobia in general was not stable at the diagnostic level phobic symptoms were quite persistent across time.

Key words: Agoraphobia – Social phobia – Epidemiology – Prevalence rates – Comorbidity – Course

Introduction

The concept of agoraphobia was introduced by Benedikt (1870) and Westphal (1872) 120 years ago. In contrast, the concept of social phobia is relatively new (Dixon et al. 1957). Both symptoms are now operationally defined by DSM-III (1980) and DSM-III-R (1985), as well as by ICD-10 (1990). However, operational definitions are

still evolving. For example, a proposal has recently been made for the subclassification of phobia into three categories, labelled 'discrete', 'non-generalized', and 'generalized' (Heimberg and Holt 1989; Heimberg et al. 1990).

Although not included originally in DSM-III or DSM-III-R, several researchers suggested that intense anxiety before and during examinations may also be a form of social phobia (Beidel and Turner 1988; Spielberger et al. 1984). They found trait-anxiety scores among subjects with test anxiety, which were comparable to those of subjects with social phobia. A subset of subjects with highest levels of anxiety fulfilled criteria for generalized anxiety. Therefore, Beidel (1989) recommended the inclusion of test anxiety as a criterial symptom for social phobia when it is significant enough to cause emotional distress or avoidance of test-taking situations.

Prevalence rates and diagnosis

The prevalence rates of phobias are quite variable in epidemiologic studies. The lifetime prevalence rates range from 0.9% to 10.8% for DSM-III agoraphobia and from 0.5% to 16.0% for DSM-III social phobia (Table 1). Transcultural differences may be responsible for the low rates in Taipei and Puerto Rico. The low rates of Faravelli et al. (1989) may be explained with their interview technique. They followed closely the decision tree of DSM-III, allowing only one disorder for each case to be diagnosed.

When ICD-10 or DSM-III-R criteria are used, there is a striking increase in the prevalence of social phobia. In a study of 470 inhabitants of Basle with a CIDI interview, Wacker et al. (1992) found major differences in the lifetime prevalence rates of phobic disorders as defined by ICD-10 and DSM-III-R criteria. The lifetime prevalence rate of social phobia defined according to ICD-10 was 9.6%, whereas application of the DSM-III-R criteria yielded a prevalence rate of 16.0%. Similarly, the lifetime prevalence rate of agoraphobia without

Table 1. Lifetime prevalence rates of phobias on epidemiologic studies

		Interview	Diagnostic criteria		Rates (%)
<i>Lifetime prevalence rate of agoraphobia</i>					
Faravelli et al.	1989	SADS-L	DSM-III	Florence (I)	0.9
Yeh et al.	1985	DIS	DSM-III	Taipei (Taiwan)	1.1
Wacker et al.	1992	CIDI	ICD-10	Basle (CH)	1.3
Yeh et al.	1985	DIS	DSM-III	Two chin. townships	1.5
Joyce et al.	1989	DIS	DSM-III	Christchurch (NZ)	3.8
Eaton et al.	1991	DIS	DSM-IV	ECA	5.6
Wittchen et al.	1992	DIS	DSM-III	Munich (D)	5.7
Canino et al.	1987	DIS	DSM-III	Puerto Rico	6.9
Wacker et al.	1992	CIDI	DSM-III-R	Basle (CH)	10.9
<i>Lifetime prevalence rate of social phobia</i>					
Yeh et al.	1985	DIS	DSM-III	Two chin. townships	0.5
Yeh et al.	1985	DIS	DSM-III	Taipei (Taiwan)	0.6
Faravelli et al.	1989	SADS-L	DSM-III	Florence (I)	1.0
Canino et al.	1987	DIS	DSM-III	Puerto Rico	1.6
Eaton et al.	1991	DIS	DSM-III	ECA	2.7
Wells et al.	1989	DIS	DSM-III	Christchurch (NZ)	3.0
Wacker et al.	1992	CIDI	ICD-10	Basle (CH)	9.6
Wacker et al.	1992	CIDI	DSM-III-R	Basle (CH)	16.0

DIS, Diagnostic Interview Scale; SADS-L, Schedule for Affective Disorders and Schizophrenia lifetime version; CIDI, Composite International Diagnostic Interview

panic when defined according to ICD-10 was 1.3%, whereas the prevalence rate was 10.9% with application of DSM-III-R. The results of Wacker et al. (1992) demonstrate that the diagnostic criteria of DSM-III-R may be the least strict for both, agoraphobia and social phobia, whereas the stricter criteria of the ICD-10 yield significantly lower rates of agoraphobia and for social phobia.

In the same study, it was also found that DSM-III-R and ICD-10 did not always identify the same subjects as "cases". Whereas the DSM-III-R criteria identified 51 agoraphobics without panic disorder, the ICD-10 identified only 6 subjects. ICD-10 requires "marked and constantly manifest fear in or avoidance of at least two" of four different situations (crowds, public places, travelling alone, travelling away from home), whereas DSM-III-R requires only one of two corresponding situations (inability to travel or inability to leave home).

Subjects and methods

Our data were derived from the interviews of the longitudinal "Zurich Study", which began in 1978 investigating a representative cohort of 2201 19-year-old men and 1346 20-year-old women from the Canton of Zurich in Switzerland. In 1979, the sample for the prospective study consisted of 591 probands. Two-thirds of the probands were selected from high scores and one-third from low scores in the SCL-90-R (Symptom Checklist 90-R; Derogatis 1977). These probands were given a semi-structured interview in 1979 and a questionnaire in 1980. They were reinterviewed in 1981, 1986, and 1988. In 1986, at the third interview, the cohort consisted of 225 males and 232 females who were 17–28 years old. In 1988, at age 29–30, 197 males and 218 females were reinterviewed. The overall drop-out rate at the third interview in 1986

was 23% and at the fourth interview – 9 years after the first – 28%. Sex ratios and ratios of high versus low scorers on the SCL-90 at the screening of 1978 remained stable between 1978 and 1988. Results and further details of methodology have previously been described by Angst et al. (1984), Angst and Dobler-Mikola (1984) and Angst and Dobler-Mikola (1985).

Instruments and measurements

The examinations were carried out with the SPIKE interview (Angst et al. 1984), which is highly structured, yet contains some unanswered questions. At each interview, the SCL-90-R (Derogatis 1977) was also applied, and in 1988, personality features were assessed by the Freiburg Personality Inventory (Fahrenberg et al. 1978).

Further questions refer to the diagnostic criteria mentioned in DSM-III. Finally, the frequency, length and recency of phobic episodes were assessed. The amount of distress associated with these symptoms was measured by an analog scale (0–100). The same scale was used for subjective impairment at work, whereas impairment in leisure activities and human relationship were assessed categorically (yes/no). In addition, treatment seeking was assessed as well as age of onset and age of first treatment.

In 1986 and 1988, the diagnosis of agoraphobia and social phobia were based on DSM-III criteria with approximations of these diagnoses in earlier interviews due to the lack of assessment of full criteria.

The questions regarding agoraphobia did not change during the four interviews. However, the method for assessment of social phobic symptoms was modified over the four interviews. In 1979/1981 SCL-90 items were used to assess the DSM-III criteria.

For these analyses, the subjects with social phobia and/or agoraphobia were divided into the following groups: subjects with pure social phobia, agoraphobia, both diagnoses, and controls.

The purpose of the present paper is to investigate and describe the occurrence, symptomatology and prevalence of agoraphobia and social phobia among a cohort of young adults. A main target of this study is to examine the validity of the distinction between

social phobia and agoraphobia. A central question therefore is whether subjects with any subtype of phobia differ from each other or, from controls, relative to other psychiatric disorders. Additionally, subjects with any subtype of phobia will be compared with regard to self-report in the SCL-90-R and self-esteem, and to psychological risk factors, such as conflicts and childhood problems as well as consumption habits.

Results

Prevalence of agoraphobia and social phobia

In the 11 years of the study, 24 subjects suffered from pure social phobia, 26 from pure agoraphobia, and 20 from both. The weighted lifetime prevalence rates according to DSM-III are: pure agoraphobia 2.9%, pure social phobia 3.8%, and both disorders 1.6% (Table 2). The overwhelming majority of social phobics and of agoraphobics are females. Longitudinal comorbidity of social phobia with agoraphobia is extremely high (odds ratio 16.7) and is more frequent among females than males; (0.4% of males and 2.5 of females, respectively).

The weighted 1-year prevalence rate of pure agoraphobia across the four interviews varies from 0.2% to 1.5%, and for pure social phobia, between 0.1 and 2.5%. The weighted 1-year prevalence rates for both syndromes in the same subject were very low with a range from 0.1% to 0.7%. The prevalence rates for social phobia tended to increase with age, whereas those of agoraphobia decreased from age 20 to 30 years.

The symptoms of agoraphobia and social phobia are given in Table 3. Agoraphobics feared most being in a crowd, an elevator, or a chair-lift. However, leaving home without a companion and travelling alone were the least frequently endorsed symptoms. The most frequent symptoms among social phobics were fear of public speaking and bothering people.

Age of onset

Information on age of onset was assessed for all phobic symptoms in general rather than for specific phobic subtypes. The group with both diagnoses, social phobia and agoraphobia, tended to have an earlier age of onset (12.4 + 7.1 years) than pure social phobics who reported the oldest age of onset (16.6 + 17.1). Pure agoraphobics fell between the two other groups (14.6 + 6.5 years).

Demographic characteristics

The parental social class and level of education did not differ among subjects with social phobia and/or agoraphobia. Social phobics were less often living with a partner than agoraphobics and controls.

Comorbidity

The association between the three subtypes of phobics and other psychiatric disorders are represented in Table 4. There was a significant association between the three

Table 2. Longitudinal prevalence rates of social phobia and agoraphobia at age 30 years

	Agora- phobia 1979-88 (N = 24) %	Social phobia 1979-88 (N = 26) %	Agoraphobia + social phobia (N = 20) %
Unweighted rates			
Males (N = 292)	3.4	3.1	1.7
Females (N = 299)	4.7	5.7	5.0
Total (N = 591)	4.1	4.4	3.4
Weighted rates			
Males	1.6	3.1	0.4
Females	4.2	4.4	2.7
Total	2.9	3.8	1.6

Table 3. Symptoms of agoraphobia and social phobia in 1988

<i>Agoraphobic symptoms in 1988</i>	<i>N = 9</i> %
1. Fear in being in a crowd	100
2. Fear of being in an elevator or on a chair-lift	77.8
3. Fear of tunnels, bridges and places	55.6
4. Fear of using means of public transport	44.4
5. Fear of going to a cinema or a theatre	44.4
6. Fear of being at home alone	44.4
7. Fear of leaving home without company	22.2
8. Fear of traveling alone	11.1
<i>Social phobic symptoms in 1988</i>	<i>N = 15</i> %
1. Fear of speaking in public	60.0
2. Fear of annoying anybody	60.0
3. Fear of going to a party, of meeting unknown people	46.7
4. Fear of eating in a restaurant	40.0
5. Fear of examinations	20.0
6. Fear of entering a shop	13.3
7. Fear of public toilets	13.3

subtypes of phobia and simple phobia ($P < 0.000$). Because of the association between panic and agoraphobia in previous studies the association between the two conditions was examined as a function of the number of phobic symptoms. It was found that the association between panic and agoraphobia was limited to those agoraphobics with two or more symptoms.

The overall association of all phobias with major depression was highly significant with a two times greater risk of depression among phobics compared to controls. The association between recurrent brief depression RBD and phobic disorders was limited to subjects with social phobia. Subjects with agoraphobia had lower rates of RBD than the controls. This was mainly attributable to the small degree of overlap with agoraphobia. There was no difference in rates of dysthymia between phobics and controls.

Recurrent brief neurasthenia was associated significantly with all types of phobia. There was also a signifi-

Table 4. Comorbid psychiatric conditions by subtypes of phobia (*C* = Contingency coefficients)

1979–88 ^a	Controls (<i>N</i> = 521)	Agoraphobia (<i>N</i> = 24)	Social phobia (<i>N</i> = 26)	Agoraphobia + social phobia (<i>N</i> = 26)	<i>C</i>	<i>P</i>
Major depressive disorder ^a	22.3	45.8	42.3	45.0	0.16*	0.001
Recurrent brief depression ^a	25.3	16.7	42.3	45.0	0.12	0.04
Panic ^a	13.8	33.3	26.9	45.0	0.19**	0.000
Recurrent brief neurasthenia ^a	16.1	25.0	30.8	40.0	0.14*	0.009
Extended neurasthenia ^a	12.5	29.2	23.1	25.0	0.13	0.03
Anxiety: panic + genanx + recanx ^a	20.4	41.7	42.3	55.0	0.20**	0.000
Anxiety: panic + general anxiety ^a	16.9	37.5	30.7	50.0	0.19**	0.000
Drug abuse ^a	6.3	8.3	11.5	20.0	0.10	ns
Cannabis	11.9	37.5	15.4	10.0	0.15*	0.004
Suicide attempts (lifetime)	8.1	20.8	19.2	25.0	0.15*	0.004

^a Assessed at all four interviews from 1979–1988

1986–88 ^a	Controls (<i>N</i> = 402)	Agoraphobia (<i>N</i> = 21)	Social phobia (<i>N</i> = 26)	Agoraphobia + social phobia (<i>N</i> = 15)	<i>C</i>	<i>P</i>
Dysthymia ^b	4.5	9.5	11.5	13.3	0.11	ns
Simple phobia ^b	7.9	37.5	50.0	25.0	0.31***	0.000
Hypomania ^b	8.3	9.5	11.5	0.0	0.06	ns
Alcohol abuse ^b	4.0	0.0	15.4	6.7	0.14*	0.04

^b Assessed at 2 most recent interviews in 1986 and 1988* *P* = 0.05** *P* = 0.001*** *P* = 0.000*N*'s for ^a*N*'s for ^b**Table 5.** \bar{x} and SD scores on the SCL-90R. Subjects with agoraphobia and social phobia in 1988

SCL-90R scales \bar{x} (SD)	Controls (<i>N</i> = 350)		Agoraphobics (<i>N</i> = 24)		Social phobics (<i>N</i> = 24)		Agoraphobia + social phobia (<i>N</i> = 13)	
	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>
Hostility	0.47	0.54	0.59	0.53	0.67	0.55	0.97	0.88
Anxiety	0.43	0.44	0.77	0.71	0.78	0.91	0.95	0.51
Phobic anxiety	0.21	0.30	0.70	0.85	0.48	0.64	0.80	0.82
Depression	0.67	0.59	0.88	0.74	1.12	0.77	1.28	0.78
Interpersonal sensitivity	0.60	0.58	1.08	0.87	1.17	0.76	1.33	0.72
Obsessive-compulsive	0.56	0.50	0.84	0.66	0.93	0.76	1.05	0.74
Paranoid ideation	0.60	0.56	0.88	0.66	0.93	0.65	1.06	0.69
Psychoticism	0.30	0.35	0.42	0.45	0.63	0.49	0.62	0.44
Somatization	0.39	0.36	0.56	0.49	0.68	0.65	0.64	0.40
Total score	0.48	0.38	0.73	0.53	0.83	0.61	0.95	0.52

P < 0.01

cant overall association between the subtypes of phobia and anxiety disorders, but none between phobics and controls regarding hypomania. All phobics reported significantly more suicide attempts than controls. Subjects with phobias did not differ from controls for drug abuse, although there was a tendency towards more abuse in persons with both diagnoses. The associations between all types of phobia and cannabis and alcohol abuse were significant. Whereas agoraphobics mainly consumed cannabis, social phobics mainly consumed alcohol.

SCL-90-R

The SCL-90-R (Derogatis 1977) was used six times between 1978 and 1988. On each occasion, phobics scored higher on anger, anxiety, depression, interpersonal sensitivity, obsessiveness, paranoid ideation, psychoticism and somatization.

We specifically examined eight items of the interpersonal sensitivity scale: feeling shy with the opposite sex, feeling that people are unfriendly, feeling inferior to

Table 6. \bar{x} and SD scores on the Freiburg Personality Inventory (FPI). Subjects with agoraphobia and social phobia in 1988

SCL-90R scales \bar{x} (SD)	Controls (<i>N</i> = 361)		Agoraphobia (<i>N</i> = 19)		Social phobia (<i>N</i> = 23)		Agoraphobia + social phobia (<i>N</i> = 13)		<i>P</i>
	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>	\bar{x}	<i>s</i>	
1 Nervousness	16.4	6.55	18.5	7.60	21.8	8.82	21.3	6.38	0.001
2 Spontaneous aggression	16.1	7.00	16.8	5.52	18.4	8.16	18.4	7.50	ns
3 Depressiveness	13.5	7.25	17.3	8.11	20.5	8.00	20.2	5.03	0.000
4 Excitability	20.3	8.15	22.6	9.53	23.4	7.61	27.2	7.17	0.006
5 Sociability	20.6	7.34	17.8	9.65	16.5	7.10	18.2	8.96	0.04
6 Stability	15.6	8.00	15.8	8.80	13.2	8.35	12.4	10.30	ns
7 Reactive aggression	16.1	7.43	15.4	7.33	18.3	7.04	16.9	7.56	ns
8 Inhibition	18.6	8.32	21.2	9.70	26.6	8.55	28.1	6.67	0.000
9 Frankness	17.3	7.92	17.4	6.50	21.5	7.55	12.3	7.40	0.004
E Extraversion I	17.9	7.71	17.3	9.73	17.5	5.74	18.2	8.25	ns
N Neuroticism	15.7	7.37	19.6	8.26	23.0	7.59	20.7	4.65	0.000
M Masculinity	17.7	7.83	15.5	9.93	11.4	8.37	9.8	6.58	0.000
S1 Aggression	17.4	7.41	18.1	6.39	19.7	6.23	21.7	6.84	0.05
S2 Extraversion II	18.9	7.60	16.2	9.80	13.7	7.29	14.2	7.46	0.003
S3 Autonomic lability	16.0	6.78	18.4	8.07	22.2	7.97	21.7	4.98	0.000

Table 7. Proportion of subjects treated for specific disorders

Disorder	Lifetime diagnosis in 1988				<i>P</i>
	Controls (<i>N</i> = 521) %	Agoraphobia (<i>N</i> = 24) %	Social phobia (<i>N</i> = 26) %	Agoraphobia + social phobia (<i>N</i> = 20) %	
Anxiety	14.2	41.7	34.6	45.0	0.000
Depression	20.5	29.2	42.3	65.0	0.000
Panic	4.4	12.5	19.2	10.0	0.000
Phobia	4.2	12.5	11.5	45.0	0.000
Any of above	24.6	54.2	46.2	75.0	0.000

others, feeling uneasy when people are watching, feeling very self-conscious with others, and feeling uncomfortable about eating and drinking. We compared the data of 1978 with those of 1988. Subjects with any type of phobia constantly reported the items mentioned above more often than controls. To our surprise, there was a clear increase in symptoms of interpersonal sensitivity among social phobics with advancing age when compared to the other two groups. Because we had already integrated the agoraphobic items of the SCL-90-R in our DSM-III diagnosis of agoraphobia, we did not assess the difference among agoraphobic subjects.

Personality features at age 30 years

At age 30 years personality features were assessed by a multidimensional personality test, the Freiburg Personality Inventory (FPI) (Fahrenberg et al. 1978). All three types of phobics deviated remarkably from controls in depressiveness, inhibition, nervousness, excitability, aggression and on the secondary scales of 'neuroticism', 'autonomous lability', 'extraversion' and 'masculinity' (low tendency to produce psychosomatic symptoms)

(Table 6). On all scales of the FPI, social phobics and subjects with both diagnoses deviated more from controls than agoraphobics.

The course of social phobia and agoraphobia

Over 10 years, the diagnoses of agoraphobia and social phobia were not stable. No subject reported the same disorder at all four interviews and only three subjects did so twice. All other subjects met the criteria for a phobic disorder on the diagnostic level only once. A follow-up of subjects with social and agoraphobia was carried out in 1988 with regard to social functioning. At age 30 years, 34% of all subjects who had ever met diagnostic criteria for agoraphobia, except in 1988, still suffered from fear or avoidance behaviour, whereas 7% felt difficulties concerning work, and 23% in leisure activities. On the other hand, 41% of all persons who had ever met diagnostic criteria for social phobia, except in 1988, complained about great fear or avoidance behavior. Twenty percent reported difficulties concerning work and 28% in leisure activities. These data are of specific interest, because they demonstrate the stability on the symptom

level but not on the diagnostic level over the four interviews.

Longitudinal associations

Investigations of the longitudinal association between social phobia and agoraphobia revealed that agoraphobia and social phobia exhibited similar patterns of course. Most persons reported agoraphobia and social phobia at the same interview. Only 1 of the 20 cases reported that one of the disorders preceded the other.

We also examine the sequence of agoraphobia in relation to DSM-III panic. In most cases, agoraphobia and panic begin at the same age. Of 16 subjects with both disorders, 7 reported both at the same interviews, 5 subjects suffered from agoraphobia earlier than panic, and only 4 experienced panic first.

Treatment

Three pure social phobics and three pure agoraphobics were treated for phobia, whereas nine cases with both disorders were treated for depression or anxiety and not for phobia. Agoraphobics were mostly treated for anxiety, and social phobics, as well as subjects with both disorders, were mostly treated for depression (Table 7).

Discussion

The prevalence of phobic disorders in this study are comparable to others. Our 1-year prevalence rates of agoraphobia and social phobia were generally quite low. Our lifetime prevalence rates were also low, thereby providing support of the strictness of the diagnoses.

Both agoraphobia and social phobia are more prevalent in females than in males; in cases of comorbidity the female preponderance is even greater.

In our study, agoraphobics were most often afraid of being in a crowd, in an elevator or on a chair-lift. Leaving home without a companion or travelling alone were rarely mentioned. Social phobics were most fearful of speaking in public or bothering somebody; very few reported fear of entering a shop or a public toilet. Regarding the objects of fear, Öst (1990) found that agoraphobics were most afraid of crossing a street or a bridge alone and of being in a crowd. Over 50% of agoraphobics feared using means of public transport or driving a car alone. Riding in an elevator alone or being home alone were rarely mentioned. On the whole our data confirm Öst's results.

Similar to clinical and epidemiologic studies all subtypes of phobia were more common in females than in males (Marks 1970; Solyom et al. 1986; Schneier et al. 1989). In contrast, Marks (1970) and Solyom et al. (1986) found that social phobia was equally common in both genders in clinical samples. Schneier et al. (1989) concluded that among persons with social phobia males were more likely to report impairment in functioning, and thus may be more likely to seek treatment. This

could explain the lack of a sex difference in clinical studies.

Previous studies revealed that social phobia seems to have an earlier age of onset than agoraphobia, with social phobia beginning in the late adolescence and agoraphobia in the mid-twenties (Solyom et al. 1986; Marks 1970; Liebowitz 1987).

In our study, agoraphobics had an earlier age of onset than social phobics. The earliest age of onset was found in persons with both disorders.

Bowen et al. (1987) reported that patients with social phobia often prefer to be alone while agoraphobic patients usually prefer the companionship of a "safe person". This is compatible with the fact that social phobic patients are less often married than agoraphobic ones (Solyom et al. 1986). Schneier et al. (1989) also found lower marriage rates among social phobics in the ECA study. In the Zurich study, social phobics did not differ from controls with regard to partnership or marriage.

Forty-five percent of all agoraphobics and 43% of all social phobics received both diagnoses over the 10-year period of the study. To our surprise, this combined group was very similar to the two pure groups in many respects: comorbidity, personality, and severity measured by the SCL-90-R. This finding suggests that the distinction between the two subgroups may be artificial.

Solyom et al. (1986) and Bowen et al. (1987) found higher levels of education and occupation in clinical studies among social phobics than in controls. On the other hand, social phobics investigated in the ECA study were less educated and had lower socio-economic status (Schneier et al. 1989). In the present study, there was no difference between subjects with any phobia and controls with regard to social class of origin or education. This difference could be attributed to the number of males in the present study. Whereas in Solyom's and Bowen's studies social phobia was equally common in both genders, in Schneier's and in our study females were overrepresented. In general, males have a better education and a higher socio-economic status.

Weissman and Merikangas (1986) reported that, although many subjects in the New Haven ECA survey were identified by diagnostic criteria as having only agoraphobia and not panic disorder, 47% in fact did have some symptoms of panic. Of the 53% without such symptoms, more than one third reported another psychiatric disorder, usually major depression. In our study, 36% of all agoraphobics suffered from sporadic panic attacks. Cameron et al. (1986) reported the greatest degree of overlap between agoraphobia and panic; 80% of their agoraphobic patients reported panic attacks. This high rate may be characteristic for treated agoraphobics.

In a comparison of persons with agoraphobia, divided according to those with a single fear and those with multiple fears, Joyce et al. (1989) found that the first group had fewer panic attacks than those with multiple fears. In the present study, there were no agoraphobic subjects with a single fear. Therefore, the findings of Joyce et al. (1989) could not be examined.

In contrast, the epidemiologic study of Thompson et al. (1989) revealed that the comorbidity of agoraphobia

and panic disorder could be accounted for by the relationship of both disorders with depression. Their results do not support the view that panic disorder is an integral component of agoraphobia, but rather that it is more closely associated with depression.

In accordance with previous studies, we found a high overall association of all types of phobia with major depression. Significant depressive symptoms are reported to be quite common in patients with social phobia (Amies et al. 1983). Ameringen et al. (1991) also reported that major depression was the most common lifetime diagnosis of 57 social phobic patients. They concluded that social phobia may predispose individuals to other psychiatric disorders, in particular major depression. Cameron et al. (1986) found depression to be the most common disorder in patients with agoraphobia without panic. Hallam and Hafner (1978) analyzed a group of psychiatrically diagnosed agoraphobics and a group of miscellaneous phobics. They revealed that agoraphobics were generally more fearful and depressed than other phobics.

Amies et al. (1983) found that 14% of their social phobic patients had a history of "parasuicidal acts", which exceeded the 2% rate among agoraphobics. Schneier et al. (1989) reported an increase in suicide attempts among subjects with social phobia. In the present study, agoraphobics did not differ from social phobics with respect to suicide attempts, but suicide attempts were more frequent in both groups than among controls.

An increased risk of alcohol abuse was also found among social phobics. In contrast, the risk of alcohol abuse among agoraphobics was not elevated. Several authors described a high risk of alcohol abuse in social phobic patients as well as in community samples (Schneier et al. 1989; Thyer et al. 1986; Ameringen et al. 1991). Some studies also reported more alcohol abuse in agoraphobics (Bibb and Chambless 1986; Noyes et al. 1986). Reviewing relevant epidemiologic surveys, family studies, and field studies, Kushner et al. (1990) reported that alcohol problems appeared to result from self-medication of phobic symptoms.

Munjack and Moss (1981) found that 26.5% of the first-degree relatives of agoraphobic patients had a history of alcoholism, compared with 20% of the relatives of patients with social phobia. Merikangas and Angst (in press) found a marked increase of agoraphobia and social phobia in relatives of pure alcoholics. In agreement with these studies, we found a nonsignificant tendency for more alcohol abuse among families of phobics than in families of controls. Instead there was a significant familial occurrence of phobic illness.

According to Marks (1970), social phobics sought treatment 5 years earlier than agoraphobics. Turner et al. (1989) found that none of 51 college students with social phobia had sought treatment for the disorder. The students were likely to be too young to seek treatment. In our study, 21.4% of 70 persons sought treatment for phobia. The comorbid group was more frequently treated than the pure cases. We found no differences between social phobics and agoraphobics with respect to the age at which they received treatment. The mean age of treat-

ment in the two groups of phobics was approximately age 20 years.

Most authors reported that social phobia in patients follows a chronic, unremitting course (Marks and Gelder 1966; Marks 1970; Amies et al. 1983). Solyom et al. (1986) found that social phobic patients had a worse outcome than agoraphobic patients, whose disorder was characterized by a phasic or fluctuating course. In our community cohort, we found no stability of any type of phobia on the diagnostic level; however, in 1988, a large number of subjects who met the diagnostic criteria at earlier interviews continued to manifest subthreshold fear or avoidance behaviour associated with impairment. These findings confirm the above-cited studies' observations of persistence of agoraphobic and social phobic symptoms with increasing interpersonal sensitivity over time.

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