The Zurich Study

V. Anxiety and Phobia in Young Adults

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Summary. From data collected within the frame of a longitudinal epidemiologic study of a representative sample population of young adults (the Zurich Study), anxiety disorders—anxiety and phobic states—were analyzed. The current prevalence rate was found to be 2.9% for anxiety states and 4.3% for phobic states, totaling 7.2%. Because of their anxiety disorders, one-fifth of the cases had undergone treatment during the preceding 12 months.

Substantial difficulties arose, from the point of view of classification. The currently used categories, such as anxiety states, panic attacks, agoraphobia, simple phobia, social phobia, have more in common than differing symptoms. On a syndromal level, numerous overlapping configurations resulted which can only be artificially forced into the aforementioned diagnostic classes of anxiety disorders. On the symptom level, merely a few operationalized items defined these categories. In this way, most of a broad identical 'nonspecific' symptomatology was not taken into account. This was exemplified by a comparison of anxiety states and agoraphobia. In fact, these two groups did not differ significantly in many symptoms or in SCL-90 profiles, but did show a highly significant difference from control samples. Both groups suffered to the same great degree from depressive, cardiovascular, and gastrointestinal symptoms.

We doubt whether any forced categorical diagnostic differentiation of anxiety and phobic states is at all reasonable.

Key words: Prevalence rates – Anxiety disorders – Agoraphobia – Panic attacks – Symptomatology

1. Epidemiology of Anxiety and Phobic Disorders

Although the prevalence of neurotic disturbances has been the topic of continued investigation, our knowledge is still incomplete. Most of the epidemiologic studies limited themselves to the mere symptoms or what is generally termed 'neurosis' without any further differentiation. Many such studies only applied symptom checklists or questionnaires with cut-off points on some scales with no interviews for case definition. In their critical synopsis of the years between 1942 and 1976, Carey et al. (1980) only found 11 epidemiologic studies which divided the neurotic disorders into at least two diagnostic subcategories. The 1-year prevalence rates of anxi-

ety states were reportedly between 0.2 and 39.2, the lifetime prevalences of anxiety states between 1.2 and 38.1 and of neurotic depression between 10.5 and 36.5 per 1000. An overall preponderance of women was found, and was also confirmed for children and adolescents by Abe and Masui (1981).

Some investigators concentrated on point prevalence rates for anxiety states. According to Marks and Lader (1973), they varied between 2.0% and 4.7% (Roth and Luton 1943; Gross 1948; Cohen et al. 1951; Hagnell 1966; Kedward and Cooper 1966). Agras et al. (1969) gave a point prevalence of 7.7% for phobia (including mild states) and of 2.2/1000 for severe phobic states.

In their report on the New Haven Survey 1975 ($n = 511$), Weissman et al. (1978) indicated a current prevalence rate of 2.5% for generalized anxiety disorder, 1.4% for phobic disorder and 0.4% for panic disorder (totaling 4.3%). Murphy (1980) has reviewed the data of the Stirling County Study 1952 ($n = 1010$) and reported a 2.9% current prevalence rate for 'anxiety reactions'.

Some studies gave period prevalence rates over 3 months (Brown et al. 1977), over 6 months (Myers et al. 1984) or 1 year. The ECA Study (Myers et al. 1984) gave 6-month prevalence rates for panic disorder of 0.4%–1.0%, and for phobia of 1.4%–13.4%. The 1-year prevalence rates for anxiety states indicated by Taylor and Chave (1964) were between 3.8% and 4.6%, varying for the different London areas. Uhlenhuth et al. (1983) reported a 1-year prevalence rate of 6.4% for generalized anxiety disorder and of 3.5% for phobic disorder and panic disorder combined, totaling 9.9% in the USA National Survey ($n = 3161$). Costello (1982) found 19.4% phobic disorder among a group of 449 women and stressed the cooccurrence of the various subtypes. Robins et al. (1984) reported from the ECA Study a lifetime prevalence rate of 7.8% to 23.3% for phobia and 1.4% to 1.5% for panic disorders (rates differing between the various catchment areas). Brown et al. (1977) found anxiety states, including those overlapping with depressive and compulsive syndromes, in 2.3% in Camberwell and 3.7% in North Uist. If borderline cases were included, the respective percentage increased to 7.8% and 8.3%.

The reasons for such an extended range of the prevalence rates are multiple and have often been discussed in the literature. It would appear that the real differences in prevalence among the various countries do not matter as much as the differences in methodology, e.g., data collection by questionnaire or interview and case definition as well as the reliability and validity of the instruments used.

In the face of the many difficulties it is obvious that as yet no valid prevalence rates of neurotic subcategories exist and

Table 1. Definition

Syndrome	SCL-90	SPIKE (interview)
Generalized anxiety (GENANX)	23. Suddenly scared for no reason	Anxiety states Fear of being alone Fear of the coming day
Social phobia (SOCPHO)	73. Feeling uncomfortable about eating or drinking in public 82. Feeling afraid you will faint in public	
Simple phobia (SIMPHO)		Situational phobia Animal phobia
Agoraphobia (AGOPHO)	13. Feeling afraid in open spaces or on the streets 25. Feeling afraid to go out of your house alone 47. Feeling afraid to travel on buses, subways, or trains 70. Feeling uneasy in crowds, such as shopping or at a movie	
Panic (PANIC)	72. Spells of terror or panic	Anxiety attacks Panic Cardiac panic/anxiety Heart beating Shortness of breath with anxiety

Somatic anxiety: palpitation, sweating, tremor, diarrhea, nausea, giddiness, shortness of breath, dry mouth, etc. were assessed in addition

that further research in this field is needed. To obtain comparable and generalizable results, certain requirements must be satisfied: interviewing of representative population samples, standardized methods and clinical diagnostics as well as operationalization of a specific threshold value for case definition. The insufficient classification of neurotic disorders to date is another complication factor.

With the objective of contributing to the clarification of this problem, we undertook the analysis of anxiety and phobic states, setting out from an operational definition of syndromes and their subsequent classification.

2. Nature of the Study and Methodology

The Zurich Study has been described in detail elsewhere (Angst et al. 1984; Angst and Dobler-Mikola 1984a, b, 1985a). Briefly, starting in 1978 from a screening of 3902 young men and 2391 young women living in the Canton of Zurich, a sample of 600 subjects were repeatedly contacted to gather information: twice (in 1979 and 1981) by means of a standardized psychiatric-sociological interview (Structured psychopathological interview and rating of the social consequences of psychic disturbances for epidemiology SPIKE) and once (in 1980) by a mailed questionnaire. On each such occasion, the probands were administered the self-rating symptom-inventory SCL-90R (Derogatis 1977). Among other purposes, the SPIKE aimed at detecting the syndromes 'anxiety states' and 'phobia' over three different time spans, viz the preceding 4 weeks (current prevalence), 3 months, and 1 year. The SCL-90R was used for the assessment of symptoms during the preceding 4 weeks.

The results presented in this paper relate to the cross-sectional data of the 1981 interview with a sample population of 456 aged 22 to 23 years.

3. Configuration and Classification of the Syndromes

Based on symptoms and items assessed by both instruments (SPIKE and SCL-90R), we defined five syndromes: general-ized anxiety, social phobia, simple phobia, agoraphobia, panic (Table 1).

In many cases, two or more of these syndromes concurred, so as to total 19 configurations (Table 2). It is noteworthy that panic attacks were observed in four different constellations: isolated (15), combined with anxiety states (30), with agoraphobia (9), and with other phobias (4).

Proceeding from a clinical angle, the 19 configurations were artificially condensed to 6 diagnostic groups with the following definitions:

1	ANX	Anxiety state (no panic, no phobia)
2	ANXPAN	Anxiety state and panic attacks (no phobia)
3	PAN	Panic attacks (no generalized anxiety, no phobia)
4	PHO	Simple and/or social phobia. Some cases with concurrent panic and/or generalized anxiety
5	AGO	Agoraphobia (excluding cases with concurrent panic attacks). Some cases with concurrent other phobia(s) and/or generalized anxiety.
6	AGOPAN	Agoraphobia and panic attacks. Some cases with concurrent other phobia(s) and/or generalized anxiety.

Since this first stage of classification included many clinically irrelevant anxiety states, we decided to apply two additional criteria for case definition:

- social consequences of anxiety and phobic states (impairment)
- avoidance behavior of phobic patients

With the application of these two criteria, the number of persons suffering from anxiety symptoms was reduced from 150 to 76. These were considered 'cases', although this group still included 20 persons who had suffered from depression of at least 2 weeks' duration within the past 12 months. Their reduction left 56 cases of 'pure' anxiety disorder (Table 3).

In the following section we discuss the 1-year prevalence rates on a syndromal and diagnostic level. Subsequently, anx-

iety states (ANX and ANXPAN) and agoraphobia (AGO and AGOPAN) are analyzed in association with other functional syndromes and single symptoms and in their social consequences (the other phobic states and isolated panic attacks are too small in number). The cases overlapping with depressive syndromes are included, in order to examine the influence of the depressive factor.

4. Prevalence Rates

4.1 Syndromes

Table 4 presents the 1-year prevalence rates of the five syndromes, of which two or more were often found to coexist in an individual. The left-hand column gives the overall prevalences and the right-hand one those for cases defined with the additional criteria of social impairment and/or avoidance behavior. It can be seen that about half of those who suffered from such syndromes met the 'caseness' criteria. The rates still appeared to be quite high. A further reduction could be obtained by adopting occupational impairment as another restricting criterion. For two reasons, however, this did not seem justified: (1) phobias are rather isolated disturbances which can produce substantial social impairment, while not necessarily interfering with occupation. (2) Anxiety spells or panic attacks can occur at night or during leisure hours, without entailing noticeable occupational impairment. In fact, it remains an unsolved problem which stricter social criteria should be applied for case definition.

If social impairment was not taken into account, the most frequent syndromes were those of the anxiety states (11%) and simple phobia (10.5%) preceding panic (6%) and agoraphobia (5.2%). The 'caseness' criteria were met by 5.2% of the

Table 2. Syndromal configuration of 6 anxiety disorders

Anxiety disorder	Syndromes					Subjects
	GENANX	SOCPHO	SIMPHO	AGOPHO	PANIC	150
1 ANX	+					35
2 ANXPAN	+				+	30
3 PAN					+	15
4 PHO			+			15 ⎫
			+		+	2 ⎪
		+	+			4 ⎪
		+	+		+	1 ⎬ 27
	+		+			3 ⎪
	+	+	+			1 ⎪
	+	+	+		+	1 ⎭
5 AGO			+	+		11 ⎫
		+		+		1 ⎪
		+	+	+		12 ⎪
	+			+		1 ⎬ 34
	+		+	+		5 ⎪
	+	+	+	+		4 ⎭
6 AGOPAN		+	+	+	+	1 ⎫
	+		+	+	+	3 ⎬ 9
	+	+	+	+	+	5 ⎭

Table 3. Anxiety disorders, social impairment, avoidance behavior, and exclusion of depression

Anxiety disorder		Subjects	Socially impaired	Avoidance behavior	Without depression
1 ANX	anxiety states	35	22		17
2 ANXPAN	anxiety states and panic attacks	30	21		16
3 PAN	panic attacks (no other syndromes)	15	4		4
4 PHO	simple phobia and/or social phobia	27	7	7	4
5 AGO	agoraphobia (no panic attacks)	34	18	15	11
6 AGOPAN	agoraphobia and panic attacks	9	7	7	4
				29	
Total		150	79	76	56

Table 4. Prevalence of syndromes (1 year), considering social impairment and avoidance behavior (rates per 100)

		Total	'Cases'[a]
GENANX	All	11.0	5.2
	Males	4.4	2.2
	Females	16.8	7.8
PANIC	All	6.0	3.1
	Males	2.1	0.8
	Females	9.3	4.9
SIMPHO	All	10.5	3.7
	Males	5.4	3.1
	Females	15.0	4.2
SOCPHO	All	2.5	1.1
	Males	1.8	0.3
	Females	3.1	1.8
AGOPHO	All	5.2	2.5
	Males	3.7	3.1
	Females	6.5	2.0

[a] 'Cases' defined as follows:
GENANX, PANIC: social impairment because of anxiety
SIMPHO, SOCPHO, AGOPHO: social impairment and avoidance behavior because of phobia

anxiety states, 3.7% of simple phobia, 3.1% of panic attacks, and 2.5% of agoraphobia.

As expected, simple phobia had less social consequences than the other syndromes.

The differences in sex distribution were quite pronounced, with a general preponderance of women. For panic attacks, the rates were 0.8% for men and 4.9% for women.

4.2. Diagnoses

The prevalence rates listed in Table 5 refer to the exclusive categories presented in Table 3. The rates are given separately for current, 3-month and 1-year prevalence, for females, males, and overall. The very small difference between current and 1-year prevalence rates points to the fact that the majority of these disturbances prevailed over the entire 12 months. This applied especially to agoraphobia (1.5% vs 1.6%) and agoraphobia combined with panic attacks (0.7%). Isolated panic attacks were very rare (0.1% vs 0.2%), and were more often associated with anxiety states (1.1% vs 1.3%). These prevalence rates depended of course on the hierarchical subsumption of the syndromes and the diagnostic categories. We

gave agoraphobia precedence over the other phobic states. Persons with concurrent generalized anxiety were thus classified as agoraphobics. Excluding cases overlapping with depression we found the following rates for the total of anxiety disorders and phobias: 5.5% current prevalence, 5.9% 3-month prevalence, and 6.4% 1-year prevalence (Table 5).

Neglecting the hierarchical subsumption and including cases overlapping with depression we found the following rates: 7.2% current prevalence, 8.0% 3-month prevalence, and 8.9% 1-year prevalence (Table 6). Taking into account only cases with work impairment, the total 1-year prevalence was 3.1% and 2.0% respectively for the cases overlapping and those not overlapping with depression.

The sex ratio of anxiety disorders was at least 1:2 for males vs females. Panic attacks were extremely rare in young men, whether isolated or combined with generalized anxiety.

5. Syndromes and Symptoms Associated with Anxiety States and Agoraphobia

Anxiety and phobic syndromes did not occur as isolated clear clinical entities but were embedded in a broader symptomatology, which could easily be overlooked. There was a considerable overlap of anxiety disorders with depressive states on the level of diagnosis and symptoms. These findings will be presented in a later paper (Angst and Dobler-Mikola 1985b).

We will restrict ourselves here to two sizable groups, anxiety states (43) and agoraphobia (22). (They consist of groups 1+2, and 5+6 of Table 3). We will describe them by information collected with the SPIKE interview (assessing 23 other functional syndromes and their specific symptoms) and with Derogatis' symptom checklist SCL-90.

5.1. Association with Other Functional Syndromes

Table 7 compares the frequency of occurrence of functional syndromes associated with anxiety states or agoraphobia versus controls. There was a high association with depression, exhaustion, sleep disorders, circulatory troubles, gastrointestinal complaints, and backache. There was also a prominent increase in suicidal ideation. As compared to the controls there was no significant increase in headache and allergic disorders. Though there was a trend to a slightly higher frequency in agoraphobics, anxiety states and agoraphobia did not differ significantly from each other.

In aggregate, the syndrome profiles of both anxiety states and agoraphobia were very diffuse. The diagnostic criteria

Table 5. Prevalence of anxiety disorders, panic, and phobia (overlap with depression excluded)

		ANX	ANXPAN	PAN	PHO	AGO	AGOPAN	Total
Current prevalence	All	0.9	1.1	0.1	1.2	1.5	0.7	5.5
	Males	0.3	0.4	—	0.1	2.8	—	3.6
	Females	1.4	1.6	0.2	2.2	0.3	1.3	7.1
3-Month prevalence	All	1.3	1.1	0.1	1.2	1.5	0.7	5.9
	Males	0.9	0.4	—	0.1	2.9	—	4.3
	Females	1.7	1.7	0.3	2.2	0.3	1.3	7.5
1-Year prevalence	All	1.4	1.3	0.2	1.2	1.6	0.7	6.4
	Males	0.9	0.7	—	0.1	2.9	—	4.6
	Females	1.7	1.8	0.4	2.2	0.4	1.3	7.8

Table 6. Prevalence of anxiety disorders, panic, and phobia (overlap with depression included)

		ANX	ANXPAN	PAN	PHO	AGO	AGOPAN	Total
Current prevalence	All	1.0	1.8	0.1	1.3	2.1	0.9	7.2
	Males	0.5	0.5	—	0.2	2.8	0.1	4.2
	Females	1.5	2.8	0.2	2.3	1.5	1.5	9.9
3-Month prevalence	All	1.4	1.8	0.1	1.9	2.2	0.9	8.0
	Males	1.1	0.5	—	1.4	2.9	0.1	6.0
	Females	1.8	2.9	0.3	2.3	1.5	1.5	10.4
1-Year prevalence	All	1.6	2.1	0.2	1.9	2.3	0.9	8.9
	Males	1.2	0.8	—	1.4	2.9	0.1	6.8
	Females	2.0	3.1	0.4	2.3	1.7	1.5	11.0

Table 7. Syndromes associated with anxiety and agoraphobia

	Controls (n = 143)	Anxiety states (n = 43)	Agora-phobia (n = 22)	Cramer's V
	per 100			
Depression	22	84	77	0.56 ***
Exhaustion	9	51	41	0.44 ***
Heart	6	26	46	0.39 ***
Sleep	18	44	64	0.35 ***
Circulatory system	16	30	55	0.29 ***
Stomach	16	35	50	0.28 ***
Back	28	49	64	0.26 ***
Sexual impairment	9	26	32	0.25 **
Appetite	8	16	32	0.22 **
Intestines	16	35	32	0.20 *
Allergies	34	26	46	0.11 NS
Headache	39	40	55	0.10 NS
Worry about health	1	19	14	
Respiration	4	16	27	
Swallowing	3	7	18	
Compulsions	1	7	9	
Motor	6	2	14	
Hypomania	1		9	
Suicidal ideation/ suicide attempts	2	26	27	

*** $P < 0.001$;   ** $P < 0.01$;   * $P < 0.05$;   NS, not significant

only consider a small part of the symptomatology. The latter in fact is extremely varied and tangential to many other functional areas.

5.2. Association with Other Symptoms

In agreement with the syndromes associated with anxiety states and agoraphobia the so-called depressed symptoms at the top were remarkably increased as compared to the controls (Table 8). There was an increase in sad or depressive mood, loss of energy, lack of appetite, change of weight, feelings of inferiority and guilt, loss of interest, loss of concentration, with additionally, a syndrome of exhaustion with weakness, fatigue, hypersensitivity, and sleep troubles. In a wider sense all those symptoms are very common in depressive states, but they were found here in anxiety disorders. Again subjects with anxiety states or agoraphobia did not differ in symptom frequency to a considerable extent.

5.3. Association with SCL-90 Profiles

The SCL-90 profiles of both anxiety states and agoraphobia were clearly pathological as compared to the controls. In 6 out of 9 scales the agoraphobics scored significantly higher than the anxiety state group, among which "phobic anxiety", but also "anxiety" and "somatization" were included. Agoraphobics described themselves as being sicker. It is remarkable that on the scale "depression" both groups scored high and did not differ (Table 9).

The higher scores of agoraphobics are partially due to the hierarchical classification giving preference to the diagnosis of agoraphobia in the cases of simultaneous presence of anxiety states. On the other hand, the resemblance of the syndromal profiles is probably not a product of this hierarchical sub sumption but also demonstrates that anxiety states and phobias differ only in a few items which are diagnostically used and that their symptomatic profiles are almost identical. In our opinion, one should not deduce from these results that the SCL-90 does not differentiate sufficiently and therefore would be invalid.

6. Social Consequences of the Anxiety Syndromes

Persons who in the SPIKE interview stated that they had suffered from anxiety and/or phobia at least four times during the preceding 12 months or during 2–3 consecutive days, were systematically asked about the social consequences of such states.

Extent of Individual Worrying

The subjectively perceived extent of worrying had to be rated on an analog scale within a range of 0–100, in answer to our question "How much did you worry about your anxiety or phobic state(s)? Would you indicate the extent of your worries on this thermometer?".

This analog rating (0–100, separately for anxiety and phobia) expressed the subjective perception and also, inexplicitly, the extent to which a person suffered from the respective manifestations. Table 10 gives the medians and the quartiles. Whether or not a depressive syndrome is concomitant, agoraphobics clearly felt more afflicted than persons with anxiety states.

Consequences for everyday life (work, relationships with close persons/friends, leisure time activites).

Table 8. Single symptoms associated with anxiety states and agoraphobia (percent)

		Controls (n = 143)	Anxiety states (n = 43)	Agoraphobia (n = 22)	Cramer's V
Depressive symptoms	Lack of appetite, weight gain or loss	2	51	41	0.58 ***
	Sad, depressive, gloomy	17	77	73	0.57 ***
	Feeling of inferiority, guilt	6	58	55	0.57 ***
	Loss of energy, fatigue	17	74	64	0.53 ***
	Trouble with concentration	10	61	55	0.52 ***
	Life is not worth living	6	51	41	0.50 ***
	Loss of interest and friends	8	54	50	0.50 ***
	Being restless	6	44	36	0.45 ***
	Sleeping too little or too much	9	47	46	0.42 ***
Symptoms of exhaustion	Weakness	2	44	14	0.52 ***
	Feeling exhausted	6	44	36	0.43 ***
	Trouble with concentration	5	42	14	0.43 ***
	Hypersensitivity	4	33	32	0.39 ***
	Fatigue	6	35	23	0.35 ***
Troubles with sleep	Trouble falling asleep	11	35	36	0.29 ***
	Waking during night	11	28	41	0.27 ***
	Not feeling rested in the morning	13	23	41	0.24 **
Other symptoms	Dizziness	13	30	46	0.28 ***
	Backache at work	13	33	41	0.27 ***
	Diarrhea	7	28	18	0.26 ***
	Stomachache	8	21	32	0.25 **
	Backache when standing or sitting for long periods	17	37	41	0.24 **
	Sexual impairment: guilt feelings	8	23	27	0.22 **
	Hypotension	9	26	23	0.21 *

*** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$

Table 9. SCL-90 scale values of anxiety states and agoraphobia vs controls

SCL-90 scales	Controls (n = 136)	Anxiety states 1 (n = 43)	Agoraphobia 2 (n = 22)	ε^2	t-test 1 vs 2
	$\bar{x}$	$\bar{x}$	$\bar{x}$		
Somatization	1.24	1.60	2.11	0.38 ***	**
Obsession-compulsion	1.29	2.09	2.50	0.50 ***	*
Interpersonal sensitivity	1.36	2.27	2.65	0.43 ***	NS
Depression	1.37	2.39	2.56	0.45 ***	NS
Anxiety	1.21	2.10	2.69	0.59 ***	**
Anger/hostility	1.31	2.05	2.34	0.31 ***	NS
Phobic anxiety	1.03	1.57	2.17	0.65 ***	***
Paranoid ideation	1.41	2.06	2.50	0.33 ***	*
Psychoticism	1.18	1.66	2.03	0.38 ***	*
SCL-90 total score	1.27	1.97	2.39	0.55 ***	*

NS, not significant
* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

Table 10. Extent of worrying about anxiety states and agoraphobia (analog scale)

	Anxiety states (n = 43)	Agoraphobia (n = 22)
1st quartile	90	99
Median	70	85
3rd quartile	49	74.75

Table 11. Social impairment in groups with anxiety states and agoraphobia

	Anxiety states (n = 43)	Agoraphobia (n = 22)	P
	%	%	
Absence from work and/or loss of job	2	18	NS
Reduction of work performance and/or secondary conflicts	60	18	**
Impaired in leisure time activities	70	82	NS
Impaired in interpersonal contacts	70	50	NS

** $P < 0.01$

Anxiety states and agoraphobia differed in their social consequences. Agoraphobia more often resulted in absence from work or loss of job, while probands with anxiety states more often felt impaired in their efficiency and suffered secondary conflicts at work. The latter group also accounted for much more impairment in interpersonal relationships. More than two-thirds of both groups declared feeling impaired in their leisure time activities (Table 11).

Illness behavior (seeking professional care (physician, psychiatrist, psychologist), self-medication, talking symptoms over with closest persons/friends).

Table 12. Illness behavior (percent)

	Anxiety states (n = 43)	Agora-phobia (n = 22)	P
Treatment by			
— any physician	5 ⎱ 21	5 ⎱ 19	NS
— psychiatrist or psychologist	16 ⎰	14 ⎰	NS
Self-medication	7	9	NS
Discussing anxiety or phobic states with others	86	86	NS
More precisely so with			
— parents and/or close relatives	19	27	NS
— partner	46	36	NS
— friends or siblings	58	41	NS
— acquaintances	5	5	NS

Medical treatment was quite rare in both anxiety and agoraphobic states (Table 12). Only about one-fifth of all those who suffered from anxiety syndromes sought professional care. Nonpsychiatric physicians were only consulted in a few exceptional cases; specialists were the most frequently sought after.

Self-medication was very rare with young adults who suffered from anxiety disorders. Only 7% (3 of 43 persons) in the category 'anxiety states' and 9% (2 of 22) in 'agoraphobia' took drugs without a physician's prescription.

On the other hand, people suffering from anxiety or agoraphobic states very frequently talked their symptoms over with someone belonging to their respective group of reference. Only 14% of both groups did not speak about their syndromes at all. As many as nearly half of those with anxiety states, and 30%–40% of the agoraphobics discussed their symptoms with their friends, siblings, or partners. Young adults clearly preferred contacts matching in age, while they were more reluctant to confide in parents or other close relatives (only about one-fifth in the anxiety states and one-fourth in the agoraphobic group). About 5% chose more distant acquaintances.

The above comments were consistent across all anxiety and agoraphobic states, irrespective of whether they overlapped with depressive syndromes.

7. Discussion

Beginning with operationally defined syndromes we found that anxiety states, panic attacks, simple phobia, social phobia, and agoraphobia cannot be neatly delimited from each other. Some of these syndromes coexist in a number of individuals, and we found as many as 19 different configurations. To simplify further procedure, we nonetheless decided to draw a line between anxiety states and panic disorder, phobias including agoraphobia, and agoraphobia including panic, although this is certainly an artificial classification. It must be remembered that the phobic group included many individuals who suffered from simultaneous anxiety states or panic attacks. There were also isolated panic attacks and those which concurred with anxiety states. The current prevalence rates totaled 2.9% for anxiety states and/or panic, and 4.3% for the phobic states. The overall current prevalence rate at age 22 to 23 of all anxiety disorders was therefore 7.2% which was higher than the 4.3% indicated by Weissman et al. (1978) for all age groups. The 1-year prevalence rate for the total of anxiety disorders was 8.9%. Our higher figures are partially due to the increase of cases with a simultaneous diagnosis of depression. The small size of the individual subgroups of anxiety disorders calls for a certain reservation in the interpretation of the prevalence rates which should therefore not be overestimated. Moreover, these subcategories are equally problematic in their definition as is the dichotomy into anxiety states and phobias.

The more precise analysis of the symptomatology was carried out on three different levels. The association of anxiety states or agoraphobia with other functional syndromes was evaluated, as compared to the control sample. Secondly, a comparison was made on the level of single symptoms (assessed by the interview), and thirdly, on the level of the SCL-90 scales. The three approaches all led to the same conclusions. Anxiety states and agoraphobia differed only in a few symptoms or items which serve for diagnostic classification. Apart from that, both groups shared numerous functional symptoms and syndromes. The most frequent symptoms were depressive, followed by cardiovascular and gastrointestinal symptoms; the latter are both known to be symptomatic of anxiety and depressive states. Respiratory troubles also occurred more frequently, as compared to the control group, yet were much rarer than the aforesaid other symptoms. These conclusions were in no way altered by the inclusion (in the analysis) of the anxiety disorder group overlapping with depressive syndromes of a minimum 2 weeks duration. It is not so much the differences that are impressive as the striking resemblance of the symptoms specific to anxiety states and agoraphobia. This conclusion is also supported by the SCL-90 scale profiles. Agoraphobics scored higher, but this was an artifact of definition (Table 2). The SCL-90 did not bring about a differentiation between our diagnostic categories, which does not indicate missing validity, but reflects the nearly identical symptomatology. We therefore do not question the instrument but rather the dichotomy between anxiety and phobic states. The clinical differentiation may be justified in individual pure cases, but diagnostic differentiation must be questioned when dealing with a sample of the general population.

Difficulties arise not only from the classification of anxiety disorders into subcategories, but also from the demarcation of normal from pathological anxiety or phobic states. This represents an unsolved problem. Most of those who experienced such states suffered from their symptoms in that they were impaired in their social role functioning, especially in their interpersonal relationships (friends, relatives), but also in their leisure time activities and partly in the occupational context. There were very few who did not feel impaired by their symptoms to an extent that would have incited them to talk their problems over with some close person. About one-fifth of persons who had been diagnosed as 'cases' had undergone treatment in the course of the preceding 12 months.

We have certainly not succeeded in solving the problem of classifying anxiety disorders in a satisfactory way. Though we did not have any difficulties in applying operational criteria, the defined groups turned out to be very similar in their symptom profiles. The validity of the differentiation ought therefore to be proved by other criteria, such as treatment or prognosis. It must be remembered, however, that one should begin with representative samples of the general population,

and not with a few unrepresentative, though maybe 'typical' clinical cases (e.g., patients with specific phobias or pure panic attacks).

References

Abe K, Masui T (1981) Age-sex trends of phobic and anxiety symptoms in adolescents. Br J Psychiatr 138:297–302

Agras S, Sylvester D, Oliveau D (1969) The epidemiology of common fears and phobia. Compr Psychiatry 10:151–156

Angst J, Dobler-Mikola A, Binder J (1984) The Zurich Study—A prospective study of depressive, neurotic and psychosomatic syndromes. I: Problem, methodology. Eur Arch Psychiatr Neurol Sci 234:13–20

Angst J, Dobler-Mikola A (1984a) The Zurich Study—A prospective study of depressive, neurotic and psychosomatic syndromes. II: The continuum from normal to pathological depressive mood swings. Eur Arch Psychiatr Neurol Sci 234:21–29

Angst J, Dobler-Mikola A (1984b) The Zurich Study—A prospective study of depressive, neurotic and psychosomatic syndromes. III: Diagnosis of depression. Eur Arch Psychiatr Neurol Sci 234:30–37

Angst J, Dobler-Mikola A (1985a) The Zurich Study—A prospective study of depressive, neurotic and psychosomatic syndromes. IV: Recurrent and nonrecurrent brief depression. Eur Arch Psychiatr Neurol Sci 234:408–416

Angst J, Dobler-Mikola A (1985b) The Zurich Study. VI: A continuum from depression to anxiety disorders? Eur Arch Psychiatr Neurol Sci 235:179–186

Brown GW, Davidson S, Harris T, Maclean U, Pollock S, Prudo R (1977) Psychiatric disorder in London and North Uist. Soc Sci Med 11:367–377

Carey G, Gottesman II, Robins E (1980) Prevalence rates for the neuroses: pitfalls in the evaluation of familiality. Psychol Med 10:437–443

Cohen ME, Badal DW, Kilpatrick A, Reed EW, White PD (1951) The high familial prevalence of neuro-circulatory asthenia (anxiety neurosis, effort syndrome). Am J Hum Genet 3:126–158

Costello CG (1982) Fears and phobias in women: A community study. J Abnorm Psychol 91:280–286

Derogatis LR (1977) SCL-90. Administration, scoring and procedures manual-I for the R (revised) version and other instruments of the psychopathology rating scale series. Johns Hopkins University School of Medicine, Chicago

Gross WM (1948) Mental health surveys in a rural area. Eugen Rev 40:140

Hagnell O (1966) A prospective study of the incidence of mental disorder. Scandinavian University Books, Lund

Kedward HB, Cooper B (1966) Neurotic disorders in urban practice: A 3-year follow-up. J Coll Gen Pract 12:148–163

Marks I, Lader M (1973) Anxiety states (anxiety neurosis): A review. J Nerv Ment Dis 156:3–18

Murphy JM (1980) Continuities in community-based psychiatric epidemiology. Arch Gen Psychiatry 37:1215–1223

Myers JK, Weissman MM, Tischler GL, Holzer CE, Leaf PJ, Orvaschel H, Anthony JC, Boyd JH, Burke JD, Kramer M, Stoltzman R (1984) Six-month prevalence of psychiatric disorders in three communities. Arch Gen Psychiatry 41:959–967

Robins LN, Helzer JE, Weissman MM, Orvaschel H, Gruenberg E, Burke JD, Rogier DA (1984) Lifetime prevalence of specific psychiatric disorders in three sites. Arch Gen Psychiatry 41:949–958

Roth WF, Luton FH (1943) The mental health programme in Tennessee. Am J Psychiatry 99:662–675

Taylor L, Chare S (1964) Mental health and environment. Longmans, London

Uhlenhuth EH, Balter MB, Mellinger GD, Cisin IH, Clinthorne J (1983) Symptom checklist syndromes in the general population: Correlations with psychotherapeutic drug use. Arch Gen Psychiatry 40:1167–1173

Weissman MM, Myers JK, Harding PS (1978) Psychiatric disorders in a U.S. urban community: 1975–1976. Am J Psychiatry 135:459–462