McLean Hospital Depression Research Facility: early-onset phobic disorders and adult-onset major depression

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Background This study explores the temporal relationship between anxiety and major depressive disorders in a cohort of patients with current major depression.

Method Current prevalence and lifetime history of specific anxiety disorders were assessed using the Structured Clinical Interview for DSM-III-R Diagnosis (SCID-P) in 85 patients with DSM-III-R major depression. Consensus DSM-III-R diagnoses were assigned by at least two psychiatrists or psychologists.

Results Twenty-nine per cent met criteria for at least one current anxiety disorder and 34% had at least one anxiety disorder at some point in their lives. The mean (s.d.) age of onset of anxiety disorder in the depressed patients with comorbid social or simple phobia (15 (9) years) was significantly younger than was that of their major depression (25 (9) years). In contrast, the mean (s.d.) age of onset of anxiety in patients with comorbid panic or OCD (20 (8) years) was similar to that seen for their major depression (21 (9) years). In patients with major depression with comorbid anxiety disorders, both the social phobia (10 of 13) and simple phobia (4 of 4) were more commonly reported to start at least two years prior to their major depression in contrast to depressives with comorbid panic (3 of 10 subjects) - Fisher's exact test, P=0.01.

Conclusions Early-onset social and simple phobias appear to be risk factors for later onset of major depression.

For many years, studies on the relationships between anxiety and depressive disorders focused primarily on agoraphobia, panic disorder or generalised anxiety disorder (GAD) (Wetzler & Katz, 1989) and less on social or simple phobia or obsessivecompulsive disorder (OCD). In this paper, we present data on the prevalence and onset of specific anxiety disorders (including social phobia) in a cohort of McLean Hospital patients with a major depressive disorder (MDD). In the companion paper (Regier et al, 1998) we present data obtained in the Epidemiologic Catchment Area (ECA) study. We address three major issues/questions. (1) How frequently do each of the DSM-III-R anxiety disorders occur in a cohort of patients who present with MDD? In particular, what is the prevalence of social or simple phobia? (2) What are the temporal relationships between the onset of specific anxiety disorders and major depression? Does social or simple phobia more commonly precede major depression than do other anxiety disorders? (3) In MDD subjects, which, if any, of the anxiety disorders tend to have their onset in childhood or adolescence?

Early research on the relationships between anxiety and depression emphasised methods for separating patients with the former from those with the latter disorder (Derogatis et al, 1973). Later studies stressed both the high rates of cooccurrence of anxiety and depression and the significance of such comorbidity vis-àvis the severity of overall illness (Van Valkenburg et al, 1984), course/outcome (Davidson et al, 1980; Dealy et al, 1981), and family history (Leckman et al, 1983; Corvell et al, 1988). More recent studies on the temporal relationships between anxiety and depression strongly suggest the anxiety (particularly in childhood or adolescence) may be a premonitor of later depression (Schatzberg et al, 1990; Magee et al, 1996).

Generally, earlier studies on comorbidity have emphasised the occurrence or prevalence of major depression in patients with agoraphobia/panic or GAD and viceversa, with relatively fewer studies on the co-occurrence of the other anxiety disorders (e.g. OCD, simple phobia, social phobia) with major depression. Early studies (Leckman et al, 1983; Weissman et al, 1984) utilised diagnostic instruments and classification systems (e.g. the Schedule for Affective Disorders and Research Diagnostic Criteria) that did not include as comprehensive a set of questions regarding symptoms of social and other phobias or detailed criteria for their diagnosis. Thus, many of the earlier major studies provided only limited information regarding the prevalence of a number of anxiety disorders (particularly social phobia) in cohorts of patients with major depression.

More recent diagnostic instruments, for example the Structured Clinical Interview for DSM-III-R Diagnosis (SCID-P), have offered a more precise and comprehensive means for assessing various anxiety disorders, particularly social and simple phobias. Using DSM-III-R criteria, recent studies have reported relatively high lifetime prevalence rates of major depression in cohorts of patients with social phobia (Stein et al, 1989; Mannuzza et al, 1995) or in community samples of people with social phobia (Angst, 1993; Kessler, 1994; Magee et al, 1996). However, there have been less data published on DSM-III-R or DSM-IV anxiety disorders (particularly the phobic disorders) in cohorts of patients with major depression. The National Comorbidity Survey (NCS) has reported high rates of comorbid anxiety disorders (particularly, social phobia) in subjects with MDD in the community (Kessler, 1994; Kessler et al, 1996a).

The temporal sequencing of specific anxiety and mood disorders may help draw 'clinical pictures' of how anxiety and depressive syndromes relate to one another over the course of an individual's life. A number of studies have reported that anxiety disorders more commonly precede depressive disorders than vice versa (Schatzberg et al, 1990). For example, we reported preliminary data from an initial subsample of this cohort of depressed patients indicating anxiety disorders were significantly more likely to precede the onset of major depression than vice versa (Schatzberg et al, 1990). The psychological and biological significance of this observation requires further study as does the question whether specific types of anxiety disorders are more likely to lead to depression than are others. Also, the significance of a lifetime history of both an anxiety and major depressive disorder may be very different in two individual MDD patients. For example, the clinical significance of the co-occurring anxiety disorder may differ considerably in a patient with MDD (with an onset age of 25 years) who had developed social phobia at age 10 than in another MDD patient with the same age of onset of depression (25 years) but whose social phobia or OCD began at age 26 during a depressive episode. Moreover, specific anxiety disorders may predispose some individuals to develop major depression more profoundly than do others. Stein et al (1989) reported that social phobia was present in about 95% of patients with panic disorder who also met criteria for major depression but was significantly less common in patients with panic disorder without major depression. The social phobia often preceded the onset of panic symptoms. They suggested social phobia may lead to specific consequences, particularly depression. Specific ages of onset were not described in that report.

Childhood-onset anxiety as a premonitor of later depression was originally suggested in several early studies. Roth et al (1972) reported that depressed adults often had a history of social phobia in childhood and Davidson et al (1980) reported that adult patients whose depression was secondary to anxiety had an increased incidence of neurotic traits in childhood over those with primary depressions. In comparison to children of healthy control subjects, Weissman et al (1984) reported a significantly increased incidence of anxiety disorders (including social phobia) in the children of adults with major depression. Kovacs et al (1989) have reported that in children with major depression, separation anxiety was a common antecedent, and Yeragani et al (1989) have also reported increased rates of childhood separation anxiety in adult patients with panic or major depression as compared with healthy controls. These data all suggest childhood anxiety, particularly separation anxiety and phobias, may be a premonitor of later, more intense anxiety syndromes and the development of depressive syndromes.

METHOD

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McLean Hospital sample

The clinical sample herein reported is derived from the McLean Hospital Depres-

sion Research Facility which was established in November 1985 to explore the course of depressive illnesses and the relationships between biological and nonbiological (e.g. psychosocial) measures over time. Methods used in the overall study have been published previously (Schatzberg et al, 1990). Patients with depression are eligible to participate if they are between the ages of 18 and 75 years, are free from all medications for at least two weeks, and have total 21-item Hamilton Depression Rating Scale Scores (HDRS; Hamilton, 1960) greater than or equal to 14 for at least a one-week period prior to study entry. Patients are excluded if they have a history within the past six months of drug or alcohol abuse, electroconvulsive therapy or oral contraceptive use. Also excluded are patients with organic mental or significant medical disorders.

All patients participating in the Facility undergo a thorough baseline evaluation that includes clinical, biochemical and psychosocial assessments. Subsequent follow-up evaluations are completed at six weeks, one year, and three years postbaseline. Data in this report are derived from the baseline phase of the study.

Clinical assessments

Patients are interviewed at each evaluation period using the Structured Clinical Interview for DSM-III-R Diagnosis (SCID-P; Spitzer et al, 1985, 1986). Part I of the interview, which focuses on the establishment of an Axis I diagnosis, is completed during the first two weeks of study participation. Using data from the SCID-P and any other clinical information, consensus research diagnoses (both current and lifetime) are assigned by at least two psychiatrists or psychologists of the research team who are blind to any biochemical data or clinical ratings other than the HDRS and the SCID-P. These diagnoses are termed 'all-source'. Both current and lifetime prevalence rates of anxiety disorders using allsource diagnoses are presented. Part II of the SCID, assessing Axis II diagnoses, is administered at approximately the six-week assessment point to allow for clinical improvement and a more accurate picture of the characteristic personality traits of the individual.

In addition, patients are rated at least three times during the initial week of study, and again at the six-week, one-year and three-year follow-up points using the HDRS and the Brief Psychiatric Rating Scale (Overall & Gorham, 1962). Mean baseline values are calculated for the HDRS and BPRS for each patient. The HSCL-90 (Derogatis *et al*, 1973) is also collected at baseline, six weeks, and years one, three, and five, as are a variety of psychosocial measures, for example the Health and Daily Living Form (Moos *et al*, 1984).

McLean Hospital patient sample

This report focuses on an initial sample of 85 patients (43 men and 42 women) who met DSM-III-R criteria for major depression. Patients with a bipolar disorder were not included in this report. Patients ranged in age from 17 to 65 years (mean (s.d.) age 35 (11) years). Fifty-three were in-patients and 32 were out-patients at the time of study. The mean (s.d.) HDRS score at baseline was 23 (5). Of the 85 major depressed patients, 34 (40%) were in an initial episode of their MDD.

Statistical methods

McLean Hospital patient data were analysed using SPSS-X Release 4.0 (1990) programs for χ^2 , Fisher's exact and *t*-tests.

RESULTS

Prevalence of anxiety disorders

As indicated in Table 1, 34% of our patients met criteria for at least one anxiety disorder during their lifetimes (26% for a single disorder and 8% for multiple disorders). Twenty-nine per cent of our patients met current criteria for at least one anxiety disorder using all-source diagnoses (22% for a single disorder and 7% for multiple disorders). The lifetime and current prevalence rates for at least one phobic disorder (including agoraphobia) were 25 and 21%, respectively.

As indicated in Table 1, social phobia was the most common lifetime anxiety disorder (15%), followed by panic with or without agoraphobia (12%), OCD (7%), post-traumatic stress disorder (PTSD) (5%), simple phobia (5%), agoraphobia without panic (1%) and anxiety disorder not otherwise specified (1%). The highest current prevalence rate was also observed for social phobia, at 13%; current prevalence rates for the other disorders were all less than 10% – see Table 1.

Temporal relationships

To assess the temporal relationships between anxiety and depressive disorders, we determined for each patient the sequence of onset of their specific anxiety disorder(s) in comparison to the onset of major depression. Data were categorised into three groups: major depression occurring two years before anxiety, anxiety occurring two years before major depression, or 'other' - two disorders occurring two years within each other. We have adopted this approach previously (Schatzberg et al, 1990) because of the difficulty in determining the primary versus secondary nature of these disorders in patients who report onset of one disorder occurring only a few months or even one year before the other. Of patients whose disorders were characterised as 'other', the majority reported the two began at approximately the same time.

Using all-source diagnoses, 22 of the 38 anxiety disorders (58%) occurred two years before MDD (Table 2). MDD preceded the anxiety disorder by two years in only 8 of 38 anxiety syndromes (21%). In 21% of subjects, the two disorders occurred within two years of each other. Both social phobia and simple phobia occurred more commonly two years before onset of MDD (social 10 of 13, simple 4 of 4) than did panic (3 of 10) (Fisher's exact test, P=0.01). Comparisons of OCD patients with other anxiety subtypes did not attain statistical significance, in part reflecting the small sample size of co-occurring OCD using all-source diagnoses. Using the earlier age of onset in patients who met criteria for two anxiety disorders we compared the combined social and simple phobia group with those patients who met criteria for either OCD or panic. Patients with social/simple phobia more commonly experienced the onset of their anxiety two years before the onset of MDD than did patients with panic/OCD $(\chi^2 = 6.94, P = 0.01).$

As indicated in Table 3, eight of the 13 social phobias began by age 14 in contrast to one of four simple phobias (Fisher's exact test, P=NS); one of 10 panic disorders (Fisher's exact test, P=0.04); three of six OCDs (Fisher's exact test, P=NS); and none of four PTSDs (Fisher's exact test, P=0.05). In all four patients with simple phobia, the anxiety disorder began by age 16. These data further point to a common onset in childhood or adolescence of social or simple phobia in those MDD patients who also demonstrate those anxiety disorders.

Table I Prevalence of DSM-III-R anxiety disorders in patients with DSM-III-R (unipolar) major depressive episode (n=85)

Anxiety disorder	Current	Past
OCD	5 (9%)	6 (7%)
PTSD	3 (4%)	4 (5%)
Social phobia	II (I3%)	13 (15%)
Simple phobia	4 (5%)	4 (5%)
Panic without agoraphobia	4 (5%)	7 (8%)
Panic with agoraphobia	2 (2%)	3 (4%)
Agoraphobia without panic	l (l%)	l (1%)
Anxiety disorder not otherwise specified	l (1%)	I (I%)
Any (at least one)	25 (29%)	29 (34%)
Multiple anxiety disorders	6 (7%)	7 (8%)
Single anxiety disorder	19 (22%)	25 (26%)

OCD, obsessive-compulsive disorder; PTSD, post-traumatic stress disorder.

 Table 2
 Temporal relationship between onset of symptoms of major depressive disorder (MDD) and anxiety

 disorder(s) in patients with co-occurrence

	Anxiety $>$ 2 years	MDD > 2 years	Other: withir
	prior to MDD	prior to anxiety	2 years
Panic	3	5	2
Social	10	I	2
Simple	4	0	0
OCD	3	I	2
PTSD	2	I	I
Agoraphobia	0	0	I
Total	22	8	8
	Anxiety >2 years	Anxiety <2 years	
	prior to MDD	prior to MDD	
Social and simple	4	3	
Panic and OCD	6	10	
χ²=6.94			
P=0.0 I			

OCD, obsessive-compulsive disorder; PTSD, post-traumatic stress disorder.

Table 3 Frequency of onset of symptoms before age 14 of DSM-III-R anxiety and major depressive disorders

Anxiety disorder	Anxiety before age 14	MDD before age 14	
Social phobia (n=13)	8	I	
Simple phobia ($n=4$)	I	0	
Panic disorder ($n=10$)	I	3	
OCD (n=6)	3	I	
PTSD (n=4)	0	0	
Agoraphobia (n=1)	I	1	

OCD, obsessive-compulsive disorder; PTSD, post-traumatic stress disorder.

Table 4 Mean (s.d.) ages of onset of symptoms of DSM-III-R anxiety and major depressive disorders

	Anxiety disorder	MDD	t	Р
Social phobia (n=13)	15 (10)	24 (9)	-2.99	0.01
Simple phobia (n=4)	14 (2)	28 (12)	- 2.28	NS
Either (n=17)	15 (9)	25 (9)	- 3.80	0.00
Panic disorder ($n=10$)	23 (7)	22 (11)	- 0.40	NS
OCD (n=6)	15 (5)	19 (5)	-1.1 2	NS
Either (n=16)	20 (8)	21 (9)	-0.15	NS
PTSD (N=4)	23 (10)	32 (10)	— 1.37	NS
Agoraphobia (n=1)	I3 (–)	13 ()	-	-
NOS (n=1)	28 (-)	27 (–)	-	_
Any anxiety disorder (n=39)	18 (9)	24 (10)	- 2.90	0.01

OCD, obsessive - compulsive disorder; PTSD, post-traumatic stress disorder.

Using the earliest age of onset of the anxiety disorder, the mean (s.d.) age of onset of the anxiety disorder (18 (9) years) was significantly younger (P < 0.01) than that of the major depression (24 (10) years) (see Table 4). Seventeen patients met criteria for social or simple phobia (13 for social phobia and four for simple; one of whom met criteria for both). Again, in the one patient who met criteria for both social and simple phobia, the earlier age of onset of the earlier phobia was used in determining the mean (s.d.) age of onset of the phobic disorder. As indicated in Table 4, the mean (s.d.) age of onset of social or simple phobia (15 (9) years; n=17) in this combined group was significantly younger (t=3.80, P=0.01) than was the age of onset of MDD (25 (9) years). In contrast, significant differences were not observed (t=0.15, P=NS) when the mean (s.d.) age of onset of panic or OCD (20 (8) years, n=14) was compared with that for MDD (21 (9) years). Thus, in MDD patients with co-occurring anxiety, social and simple phobias begin in late childhood or adolescence, considerably before the onset of MDD. In contrast, the mean age of onset in the combined panic/OCD group was later (20 years) than for social/simple phobia and at about the same time as the MDD (20 years), which occurred earlier than did the MDD in the phobic group. Mean ages of onset of 15 years and 14 years were observed for social and simple phobia, respectively - see Table 4.

Description of social phobia

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We reviewed our patients' data to ascertain the degree of impairment caused by their social phobias. All 13 patients who received a consensus diagnosis of social phobia demonstrated clear impairment in their lives due to the phobia. For example, one patient dropped out of graduate school because he could not present to a small seminar group; another stopped competitive athletics; another missed promotions at work, and so forth. Nine of 13 patients with social phobia appeared to meet criteria for limited rather than generalised social phobia. Eight of those 13 with social phobia also experienced onset of social phobia before age 14 and for seven of the eight, the social phobia preceded the date of onset of MDD by at least two years. Four of the eight patients who had reported onset of social phobia before age 14 met criteria for other anxiety disorders using all-source diagnoses. In all four, the social phobia occurred first. Of the 10 patients who met criteria for social phobia on signoff, only two met criteria for panic disorder on sign-off. Thus, the vast majority of MDD patients with social phobia did not meet criteria for panic disorder.

DISCUSSION

The lifetime prevalence of anxiety disorders in this cohort of depressed patients was similar to those reported in a review a few years ago by Wetzler & Katz (1989).

The overall rate observed was, however, lower than that in the ECA study (Regier *et al*, 1998). This may reflect differences between using the DIS and the SCID and the populations studied. Conceivably, patients in a current depressive disorder may not recall or focus on previous anxiety disorders with as much surety as do subjects who may not be currently depressed.

In this study, social phobia had the highest current and lifetime prevalence rates, considerably higher than were noted for agoraphobia, simple phobia, OCD, or GAD. Studies prior to the SCID-P and DSM-III-R understandably paid less specific attention to phobic disorders. For example, the Depression Collaborative Study (Fawcett & Kravitz, 1983; Coryell et al, 1988) and that of Leckmann et al (1983) utilised limited questions to ascertain the presence of such phobias. As indicated in the companion paper (Regier et al, 1998), social phobia was common in the ECA sample of MDD subjects, although it was not the most common co-occurring anxiety disorder. In the ECA study, the DIS was used which combines a more limited set of questions regarding social phobia than does the SCID-P. In the NCS, social phobia was the most common anxiety disorder observed in MDD subjects with prevalence rates slightly higher than we observed here (Kessler et al, 1996a).

An obvious concern regarding the prevalence of social phobia is the ability to separate it from depression. Could the avoidant behaviour merely reflect the lowered self-esteem commonly seen in MDD? An inspection of our clinical data suggests that patients who met criteria for social phobia using all-source diagnoses demonstrated specifically socially avoidant behaviours in situations that were not typical of MDD alone. The majority of patients did not demonstrate generalised social phobia. In addition, patients could usually separate dates of onset of symptoms of social phobia from those of MDD on the SCID-P, suggesting that the social phobia was differentiable from the MDD. Last, the onset of social phobia generally preceded the onset of MDD.

Both social phobia and simple phobia had ages of onset that were similar to those reported in the NCS (Magee et al, 1996) and were significantly earlier than those of major depression. Moreover, for both of these disorders, the phobia more commonly started two years before the onset of major depression than did panic disorder where the temporal relationship between panic and MDD was more variable. Although social phobia more commonly started by age 14 than did simple phobia, both disorders started before adulthood. These data suggest that both relatively early-onset social and simple phobia could be premonitors of later-onset

major depression. Similar data have been reported in the NCS (Kessler *et al*, 1996*a*; Magee *et al*, 1996).

In the companion paper (Regier et al, 1998) we present odds ratios data on the likelihood of each of the specific anxiety disorders leading to major depression two years after onset of anxiety symptoms. For each of the anxiety disorders, the odds ratio was elevated with the highest odds ratio observed for social phobia. The odds ratios for major depression leading to social or simple phobia were not elevated, although they were for MDD leading to panic or OCD. These data suggest that social and simple phobias are frequent premonitors for MDD, but not vice versa. In contrast, subjects with comorbid MDD/panic disorder or MDD/OCD may commonly begin with either an episode of depression or anxiety (see below for further discussion).

Phobic disorders preceding major depression is consistent with the previous observations of Kovacs *et al* (1989) that depressed children frequently have a previous history of anxiety and those of Weissman *et al* (1984) of increased prevalence of social phobia in the children of depressed probands. Also as indicated previously, a number of years ago, Roth *et al* (1972) reported high rates of childhood anxiety disorders in depressed adults.

Several explanations may be offered for our findings. Early social phobia in particular may act as a frequent stressor for the individual that may lead to chronic demoralisation, a relative deficit in social supports, and eventually depression. Although one may wonder whether early social phobia may lead to schizotypal, schizoid or avoidant personality disorders, a preliminary analysis of SCID-II data on the McLean Hospital sample indicates that none of the MDD social phobia patients on whom SCID-II data were available met criteria for schizoid or schizotypal disorder on Part II of the SCID. Only one met definite criteria for avoidant personality disorder, two patients met criteria for dependent personality, and one met criteria for personality disorder not otherwise specified. The low rate of avoidant personality may reflect the finding that the vast majority of our subjects did not meet criteria for generalised social phobia.

Paul (1988) has hypothesised that chronic anxiety may lead to a depletion of central catecholamines and to depression. Indeed, Weiss *et al* (1981) have reported that chronic stress in rats leads to depletion of catecholamines in the locus ceruleus. Early-onset social phobia may be akin to a chronic stress paradigm and could conceivably lead to catecholamine depletion and depression. We are currently analysing our catecholamine output data to test this hypothesis.

A third explanation is that early social phobia is an early manifestation of depression or of a psychological process that may lead to depression. Although patients generally dated the onset of social phobia before depression, diffidence or anxiety in social situations may prove to be an early expression of depression in children. Indeed, as noted above, Weissman et al (1984) have reported a link between depression in parents and social phobia in children. Conceivably, children may have a limited repertoire of modes of expressing that they are experiencing emotional problems. In this context, the earliest manifestation of later depression could be social anxiety. Thus, early-onset social phobia may not be a separate disorder but the earliest expression of a disease process.

The specificity of such early-onset social anxiety may not be limited to later MDD. In recent studies, social phobia may be a risk factor for later developing binge eating, schizophrenia, alcohol abuse and other psychiatric disorders (Angst, 1993; Kessler et al, 1996b). Rosenbaum et al (1991) reported that anxiety disorders were significantly more common in the parents of socially inhibited children than in the parents of non-inhibited children or controls. These data suggest early-onset social inhibition may be related more to later anxiety disorders than to depression. However, social inhibition may be a separate phenomenon from social phobia, and clinical data from Stein et al (1989) point to early social phobia increasing the risk for major depression in a cohort of panic disorder patients. Thus, further prospective studies of socially inhibited and phobic children appear warranted.

Although our data on OCD were limited, childhood-onset OCD may also be a risk factor for developing major depression. The mean age of onset of OCD (15 years) was similar to those of social (15 years) and simple phobia (14 years) and was earlier than the mean age of onset of MDD, albeit not of statistical significance. Half of the subjects with comorbid OCD and MDD reported onset of OCD two years before the onset of MDD. In the other half, onset of OCD and MDD occurred at approximately the same time or the MDD preceded the OCD. These data suggest some MDD patients are at risk for developing obsessive ruminations in the context of a depressive disorder. Thus, there may be two forms of obsessivecompulsive type symptoms in relationship to MDD - one which occurs early as a disorder and well before the onset of major depression and another which occurs later after the onset of major depression. These two forms could confuse analysis of data on comorbidity of OCD and MDD. The existence of these forms is suggested in the ECA data as discussed in the companion paper (Regier et al, 1998) as well as above. Further studies on the comorbidity of OCD and MDD are needed.

There are a number of caveats that should be offered regarding our findings. First, the McLean Hospital population may reflect a more severe or refractory group of depressed patients, and our observations may not be generalisable to other depressed samples. However, one-third were in their initial episode and there were remarkable similarities between observations in the clinical and epidemiological samples. Second, a major question can be raised about the reliance on retrospective recall of previous symptoms and the dating of their age of onset. It is possible that depressed patients may overemphasise previous social problems. Also, patients may not accurately recall specific ages of onset of clusters of symptoms or syndromes; however, we do not believe that the dating of social phobia should be of poorer reliability than the dating of other anxiety disorders. A third, related, problem concerns the significance of ages of onset using SCID-P. Since patients are only asked to recall when they first noticed symptoms of a specific disorder, one cannot establish that the patient actually met full criteria for the specific syndrome at that time. Prospective studies may help to overcome many of these problems.

Data in this report point to social and simple phobia commonly preceding major depression and beginning in childhood or adolescence. These findings suggest that phobic symptoms occurring in childhood should be evaluated closely and interventions considered so as possibly to prevent later psychopathology. Further prospective studies are required to determine the psychological, physiological and genetic links between childhood social phobia and adult major depression.

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