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Influence of Psychiatric Comorbidity on Recovery and Recurrence in Generalized Anxiety Disorder, Social Phobia, and Panic Disorder: A 12-Year Prospective Study

Steven E. Bruce, Ph.D., **Kimberly A. Yonkers, M.D.**, **Michael W. Otto, Ph.D.**, **Jane L. Eisen, M.D.**, **Risa B. Weisberg, Ph.D.**, **Maria Pagano, Ph.D.**, **M. Tracie Shea, Ph.D.**, and **Martin B. Keller, M.D.**
Department of Psychiatry and Human Behavior, Brown University; the Department of Psychiatry, Yale University, New Haven, Conn.; and Massachusetts General Hospital–Harvard Medical School, Boston.

Abstract

Objective—The authors sought to observe the long-term clinical course of anxiety disorders over 12 years and to examine the influence of comorbid psychiatric disorders on recovery from or recurrence of panic disorder, generalized anxiety disorder, and social phobia.

Method—Data were drawn from the Harvard/Brown Anxiety Disorders Research Program, a prospective, naturalistic, longitudinal, multicenter study of adults with a current or past history of anxiety disorders. Probabilities of recovery and recurrence were calculated by using standard survival analysis methods. Proportional hazards regression analyses with time-varying covariates were conducted to determine risk ratios for possible comorbid psychiatric predictors of recovery and recurrence.

Results—Survival analyses revealed an overall chronic course for the majority of the anxiety disorders. Social phobia had the smallest probability of recovery after 12 years of follow-up. Moreover, patients who had prospectively observed recovery from their intake anxiety disorder had a high probability of recurrence over the follow-up period. The overall clinical course was worsened by several comorbid psychiatric conditions, including major depression and alcohol and other substance use disorders, and by comorbidity of generalized anxiety disorder and panic disorder with agoraphobia.

Conclusions—These data depict the anxiety disorders as insidious, with a chronic clinical course, low rates of recovery, and relatively high probabilities of recurrence. The presence of particular comorbid psychiatric disorders significantly lowered the likelihood of recovery from anxiety disorders and increased the likelihood of their recurrence. The findings add to the understanding of the nosology and treatment of these disorders.

Anxiety disorders are more common than any other major group of diagnoses, with the exception of substance use disorders. According to the National Comorbidity Survey, the overall lifetime prevalence of anxiety disorders is 24.9%, including rates of 3.5%, 13.3%, 5.1%, for panic disorder with or without agoraphobia, social phobia, and generalized anxiety disorder, respectively (1). The effects of these disorders on both physical health and occupational functioning have been well documented (2–6). In the WHO Collaborative Study on Psychological Problems in General Health Care, more than one-half of the patients with panic disorder without or with agoraphobia reported moderate to severe occupational

Address correspondence and reprint requests to Dr. Bruce, Department of Psychiatry and Human Behavior, Brown University, Box G-BH, Providence, RI 02906; Steven_Bruce_PhD@Brown.edu (e-mail).

dysfunction and physical disability (3). The severity of disability reported was similar to that reported for depressive episodes and higher than that for alcohol dependence.

Despite the high prevalence of anxiety disorders and the morbidity associated with these disorders, much is yet to be learned about their clinical course. Information regarding the course of panic disorder is available from retrospective studies, but the results are inconsistent (7–9). Studies from the 1950s and 1960s found that 40%–60% of patients with panic disorder were either unchanged or slightly improved (10). The findings of retrospective studies conducted since the availability of approved treatments for anxiety disorders are also variable, although some of these reports also found a lack of substantial improvement in subjects after a variable number of years (11–13).

Only a few prospective studies of panic disorder are available (14–17). Most of these studies (14–16) were limited by short follow-up periods, small sample sizes, and a lack of systematic remission definitions. Short-interval prospective data regarding the course of social phobia or generalized anxiety disorder are limited to the Harvard/Brown Anxiety Disorders Research Program, a longitudinal, observational study of multiple anxiety disorders. The study reported here, from the Harvard/Brown Anxiety Disorders Research Program, had two objectives: 1) to examine the 12-year clinical course of anxiety disorders by determining rates of recovery and recurrence and 2) to explore the effect of psychiatric comorbidity on the clinical course of panic disorder without agoraphobia, panic disorder with agoraphobia, social phobia, and generalized anxiety disorder.

Method

The Harvard/Brown Anxiety Disorders Research Program is a longitudinal, prospective, short-interval follow-up study of adults with a current or past history of anxiety disorders. In 1989–1991, 711 participants entered this study from more than 30 clinicians' practices at 11 clinical treatment facilities in the New England area. These methods are described in detail elsewhere (17). The primary inclusion criterion was a past or current diagnosis of any of the following disorders at intake: panic disorder without agoraphobia, panic disorder with agoraphobia, social phobia, and generalized anxiety disorder.

Insufficient for inclusion, but frequently seen as comorbid conditions, were diagnoses of simple phobia, posttraumatic stress disorder, obsessive-compulsive disorder, and anxiety disorder not otherwise specified. Participants were required to be at least age 18 years at intake, willing to voluntarily participate in the study, and willing to sign a written consent form. Exclusion criteria consisted of the presence of an organic brain syndrome, a history of schizophrenia, and current psychosis at intake; otherwise, any comorbidity was allowed.

Procedures

The data for the study reported here were derived from the structured diagnostic interview administered at intake and from subsequent follow-up interviews over 12 years. In the initial comprehensive evaluation, lifetime history was assessed with the Structured Clinical Interview for DSM-III-R Non-Affective Disorders, Patient Version, and the Research Diagnostic Criteria (RDC) Schedule for Affective Disorders and Schizophrenia—Lifetime Version (SADS-L) (18). Items on the Structured Clinical Interview for DSM-III-R Non-Affective Disorders, Patient Version, and SADS-L were combined to create the SCALUP, a structured interview used to assess diagnoses at intake (available on request from Dr. Keller, Department of Psychiatry and Human Behavior, Brown University). The instrument yielded both present and past RDC diagnoses for affective disorders and DSM-III-R diagnoses for nonaffective (including anxiety) disorders. Interviews were conducted by trained,

experienced bachelor's- and master's-level clinical interviewers and usually took place in single sessions lasting 2–4 hours.

Follow-up interviews were conducted at 6-month intervals for the first 2 years, annually for years 3–6, and every 6 months in years 7–12. These interviews utilized the Longitudinal Interval Follow-Up Evaluation (19), which is used to assess the weekly course of disorders with psychiatric status ratings (Table 1). For a rating of the greatest severity of illness (psychiatric status rating of 6), the respondent was required to meet the full DSM-III-R criteria for the disorder in addition to having severely disrupted functioning. A psychiatric status rating of 1 indicates an absence of symptoms. In addition, the Longitudinal Interval Follow-Up Evaluation was used to collect information on pharmacological treatment for each week during the interval, including information on the type of medication and average daily dose.

Reliability and validity studies of the Longitudinal Interval Follow- Up Evaluation found good to excellent agreement on psychiatric status rating scores. Interrater reliability was measured with intraclass correlation coefficients (ICCs); ICCs for each of the disorders were as follows: 0.67–0.88 for panic disorder, 0.78–0.86 for generalized anxiety disorder, 0.75–0.86 for social phobia, and 0.73–0.74 for major depressive disorder (20). Long-term test-retest reliability over 1 year was also found to be very good to excellent for the anxiety disorders and for major depressive disorder. A separate external validity assessment comparing psychiatric status ratings with other psychosocial measures found good concurrent and discriminant validity (20).

Definitions of Recovery and Recurrence

Recovery and recurrence in this study were defined prospectively. A participant was considered to have recovered from anxiety disorder if he/she experienced 8 consecutive weeks at psychiatric status ratings of 2 or less (Table 1). Subjects who met this condition were virtually asymptomatic for 2 consecutive months. This definition of recovery has been widely used in studies of affective disorders and other disorders. For each disorder besides generalized anxiety disorder, recurrence was defined as the onset of symptoms at a psychiatric status rating level of 5 or greater for 2 consecutive weeks following a recovery (Table 1). For generalized anxiety disorder, recurrence was defined as the onset of symptoms at a psychiatric status rating of 5 or greater for 6 months following a recovery.

Statistical Analyses

Statistical analyses were conducted with SAS Version 6.07 (SAS Institute, Cary, N.C.). Probabilities of recovery and recurrence were calculated by using standard survival analysis methods. Kaplan-Meier life tables were constructed for time to recovery and time to recurrence. Data for patients who were lost to follow-up were censored at the time of dropping out of the study. Proportional hazards regression analyses with time-varying covariates were conducted to determine risk ratios for possible comorbid psychiatric predictors of recovery and recurrence.

Results

The demographic and clinical characteristics of the patients assessed at intake between 1989 and 1991 (N=711) and of those who remained in the study at the 12-year follow-up (June 2003) (N=473) are summarized in Table 2. At intake, the subjects ranged in age from 18 to 86 years (mean=40.5 years). The ratio of female subjects to male subjects was 2:1. Minority group members represented only 3% of the study subjects, reflecting the patient populations of the recruiting sites. The majority (52%) were married, 39% had completed college or

graduate school, and 42% were working full time. At intake, 357 subjects (50%) were experiencing an episode of panic disorder with agoraphobia, 82 (12%) panic disorder without agoraphobia, 179 (25%) generalized anxiety disorder, and 176 (24%) social phobia. Some subjects had more than one disorder. A total of 473 subjects remained enrolled in the study at the 12-year follow-up in June 2003. The distribution of anxiety disorder diagnoses, illness severity scores, demographic characteristics including gender, age of episode onset, and clinical correlates among the subjects who remained in the study were nearly identical to the distribution among the subjects at intake (Table 2). No significant demographic or diagnostic differences were found between the subjects included in the 12-year follow-up and those who dropped out of the study, nor were there significant differences in treatment received between those two groups.

12-Year Longitudinal Course

Recovery—With the exception of patients with panic disorder without agoraphobia, a majority of subjects were still in their intake episodes 12 years after study entry (Figure 1). Kaplan-Meier survival estimates showed that subjects with panic disorder without agoraphobia were more likely to have a recovery at all time points and had a 0.82 probability of achieving recovery of their intake episode of panic disorder without agoraphobia by year 12. In comparison, patients with generalized anxiety disorder, panic disorder with agoraphobia, and social phobia had much lower probabilities of achieving recovery over 12 years of follow-up (probabilities of 0.58, 0.48, and 0.37, respectively). Survival estimates were also calculated for patients with comorbid major depressive disorder (Figure 1). Examination of the survival curves showed a higher probability of recovery from the major depressive disorder than from the anxiety disorders, with the exception of panic disorder without agoraphobia. By year 12, the probability of recovering from major depressive disorder was 0.73.

Recurrence—Subjects who had a prospectively observed recovery from their intake anxiety disorder had a high probability of subsequently having a recurrence over the follow-up period (Figure 2). Although subjects with panic disorder without agoraphobia were found to have a higher likelihood of recovery, compared to those with panic disorder with agoraphobia, the probability of recurrence of the two disorders was quite similar (0.56 and 0.58, respectively). Individuals with generalized anxiety disorder or social phobia who recovered were somewhat less likely to have a recurrence over the 12-year follow-up period. The probability of having a recurrence of social phobia was 0.39 over 12 years, and the probability of recurrence in patients who had recovered from generalized anxiety disorder was 0.45 at the end of the 12 years. For comorbid major depressive disorder, there was a high likelihood of subsequent recurrence at some point during follow-up (probability of 0.75).

In addition to examining overall clinical course, we also looked at the average amount of time patients with each disorder remained ill during the follow-up period. The average time spent in an illness episode during the study period was 80% for social phobia, 78% for panic disorder with agoraphobia, and 74% for generalized anxiety disorder. Patients with panic disorder without agoraphobia spent the least time in episode on average during the study period (41%).

Psychiatric Predictors of Anxiety Course

When baseline diagnoses were used as predictors, we found no association of time to recovery with any of the index anxiety disorders or with the total number of comorbid baseline diagnoses. We examined co-occurring disorders as time-varying covariates (to explore whether changes in the course of one disorder over time influenced the subsequent

course of other anxiety disorders) and found that several comorbid psychiatric disorders had a significant effect on course of the index anxiety disorders. We used Cox's proportional hazards regression analyses with the comorbid disorders as time-varying covariates to estimate the effect that being in an episode of the "predicting" disorder had on the probability of recovery or recurrence in the subsequent week for each of the index anxiety disorders (expressed in risk ratios).

Several significant relationships were found when we examined whether the presence of major depressive disorder influenced the subsequent clinical course of panic disorder without or with agoraphobia, generalized anxiety disorder, or social phobia (Table 3). For example, patients with comorbid major depressive disorder were one-half as likely to subsequently recover from panic disorder with agoraphobia or generalized anxiety disorder (risk ratio= 0.54, $p \leq 0.01$; risk ratio=0.57, $p \leq 0.01$, respectively), compared with patients without comorbid major depressive disorder. Likewise, relative to the absence of comorbid major depressive disorder, the presence of comorbid major depressive disorder increased by nearly twofold the likelihood that patients would have a recurrence of panic disorder with agoraphobia (risk ratio=1.85, $p \leq 0.05$).

The presence of additional comorbid anxiety disorders was also found to be predictive of anxiety course. For instance, comorbid generalized anxiety disorder was found to decrease the probability of recovering from social phobia and increase the likelihood of its recurrence, relative to the absence of comorbid generalized anxiety disorder (risk ratio=0.56, $p<0.05$; risk ratio=4.15, $p<0.01$, respectively) (Table 3). Among patients with generalized anxiety disorder, those with comorbid panic disorder with agoraphobia had a significantly lower likelihood of recovering from generalized anxiety disorder, compared to those without comorbid panic disorder with agoraphobia (risk ratio=0.67, $p<0.05$). In contrast, none of the comorbid disorders significantly predicted recurrence of generalized anxiety disorder. The absence of associations of recurrence may be related to the smaller number of recurrences of generalized anxiety disorder (i.e., 31 recurrences, compared to 119 recoveries, for generalized anxiety disorder).

Analyses were also conducted to examine the relationship between alcohol and other substance use disorders and the clinical course of the anxiety disorders. The results indicated that the presence of a comorbid alcohol or other substance use disorder, compared to the absence of a disorder in this category, significantly decreased the likelihood of generalized anxiety disorder recovery by nearly fivefold (risk ratio=0.20, $p<0.01$) and significantly increased the likelihood of generalized anxiety disorder recurrence by more than threefold (risk ratio=3.09, $p<0.05$) (Table 3).

Finally, proportional hazards regression analyses were conducted to determine if types of psychotropic treatment increased the likelihood of recovery. Overall, patients who recovered from panic disorder without agoraphobia, panic disorder with agoraphobia, generalized anxiety disorder, or social phobia were no more likely to be taking a selective serotonin reuptake inhibitor (SSRI) or a benzodiazepine the week before recovery than were those who did not recover. Further analyses of data for patients who recovered indicated that they were no more likely to be receiving a combined treatment approach of SSRIs and benzodiazepines the week prior to recovery than were those who did not recover. No other class of medication (e.g., tricyclics) was found to significantly increase the likelihood of recovery.

Discussion

To our knowledge, this study is the first to present data from more than a decade of prospective follow-up of the clinical course of anxiety disorders. The data suggest that, with the exception of panic disorder without agoraphobia, the anxiety disorders examined in this study are insidious and are characterized by a chronic clinical course with low rates of recovery and relatively high probabilities of recurrence. Clinical course data on panic disorder without agoraphobia and panic disorder with agoraphobia indicated that although panic disorder without agoraphobia remits at a much faster rate than panic disorder with agoraphobia, the rates of recurrence for the two disorders over 12 years are nearly identical (0.56 and 0.58, respectively). Patients with panic disorder with agoraphobia had, on average, an earlier age at onset and a longer duration of their intake episode, compared with patients who had panic disorder without agoraphobia. This difference in recovery rates is consistent with findings of prior studies examining clinical course (21–24) and supports the hypothesis that the presence of agoraphobic avoidance unfavorably affects long-term outcome. Differences in clinical course also lend support to the premise that the presence of agoraphobia may be a severity factor for panic disorder. For example, Starcevic and colleagues (25) found that patients with panic disorder with agoraphobia reported a greater number of panic symptoms and a more frequent occurrence of panic attacks than did patients with panic disorder without agoraphobia. They suggested that the severity of panic attacks, along with a variety of anticipatory fears about the consequences of the attacks, may contribute to the development of agoraphobia. In other studies, subjects with panic disorder with agoraphobia scored significantly higher on measures of perfectionism and anxious thoughts, compared with subjects with panic disorder without agoraphobia (26, 27).

In our study, the patients with panic disorder without agoraphobia had higher recovery rates, spent considerably less time in illness episodes, and were less affected by comorbid conditions, compared with patients with any of the other anxiety disorders we considered. These findings lend support to the view that panic disorder without agoraphobia may be a distinct disorder that deserves more careful research scrutiny apart from panic disorder with agoraphobia.

Social phobia, the most common of the anxiety disorders, was found to be the most chronic; patients with social phobia had a 0.63 probability of remaining in the original intake episode even after 12 years of follow-up. However, patients who did recover from social phobia had a lower rate of recurrence (probability=0.39) over 12 years, compared with patients with panic disorder (with or without agoraphobia), generalized anxiety disorder, or major depressive disorder. These findings suggest that although social phobia is typically a chronic, unremitting disorder, patients with social phobia whose symptoms improve to the point of recovery tend to stay well, relative to patients with other anxiety disorders.

Other than the Harvard/Brown Anxiety Disorders Research Program, there exist very few studies examining the long-term clinical course of generalized anxiety disorder (28–30). A dozen years of follow-up in the project indicate that generalized anxiety disorder is a chronic anxiety disorder, with 42% of patients remaining in their intake episode after 12 years. Of those who did recover, nearly one-half subsequently had a recurrence. These results are clearly inconsistent with earlier assumptions, reflected in the DSM-III criteria, that generalized anxiety disorder is a residual and innocuous condition that usually does not lead to significant impairment. Rather, the long-term course appears to be chronic in nature, with more recent studies showing significant impairment across multiple domains (31–35).

Examination of the clinical course of comorbid depression in Harvard/Brown Anxiety Disorders Research Program patients indicates a relatively high recovery rate and substantial

likelihood of recurrence. The recovery rate over 12 years was found to be substantially higher for major depressive disorder than for the anxiety disorders, except for panic disorder without agoraphobia. However, compared with the 0.93 rate of recovery from major depressive disorder for patients in the Collaborative Depression Study, a similar prospective study examining the course of mood disorders (36), the 0.73 rate of recovery over 12 years in the Harvard/Brown Anxiety Disorders Research Program was much lower, suggesting that the presence of comorbid anxiety disorders reduces the overall likelihood of recovering from depression. Compared with survival estimates of recurrence of major depressive disorder from the Collaborative Depression Study (estimate of recurrence=0.80), the pattern of recurrence over 12 years for major depressive disorder patients in the Harvard/Brown Anxiety Disorders Research Program (who had major depressive disorder comorbid with anxiety disorders) appears to be very similar (rate of recurrence=0.75) (Figure 2).

One of the strengths of this study is its examination of the differential effects of the various comorbid conditions on anxiety disorder course. Although previous studies indicated that comorbid axis I and II diagnoses complicate the course of generalized anxiety disorder, only a few have identified specific predictors of recovery and recurrence (11, 37). Consistent with an earlier study in the Harvard/ Brown Anxiety Disorders Research Program (38), the current study found a lower likelihood of recovery from generalized anxiety disorder in patients with comorbid major depressive disorder and in patients with comorbid panic disorder with agoraphobia. In addition, the presence of a comorbid alcohol or other substance use disorder significantly decreased the likelihood of recovery from generalized anxiety disorder and significantly increased the risk of recurrence of this disorder. These findings, combined with the findings of Compton and colleagues (39), who reported that generalized anxiety disorder predicted the presence of additional substance dependence diagnoses, highlight the insidious reinforcing influence that generalized anxiety disorder and the alcohol and other substance use disorders have on each other.

One noteworthy predictor of clinical course was the influence of comorbid generalized anxiety disorder, which was associated with a significantly lower likelihood of recovery from social phobia and a higher likelihood of its subsequent recurrence. This finding is consistent with the finding of Mennin and colleagues (40) that patients with social anxiety with comorbid generalized anxiety disorder demonstrated greater severity on measures of social anxiety, avoidance, functional impairment, and overall psychopathology, compared with patients without comorbid generalized anxiety disorder. Taken together, these previous findings and our current findings suggest that comorbid generalized anxiety disorder exacerbates the chronic course of social phobia, further impairing individuals with this disorder.

Patients with panic disorder with agoraphobia and comorbid depression were less likely to recover from their panic disorder and more likely to have a subsequent recurrence. This finding is consistent with findings of prior studies in which comorbid major depressive disorder negatively affected the outcome of panic disorder with agoraphobia (22, 41, 42). Although comorbid major depressive disorder was not found to significantly affect the recurrence rates of generalized anxiety disorder, social phobia, and panic disorder without agoraphobia, the risk ratios indicated that the presence of comorbid depression increased by 62%–90% the odds of the recurrence of generalized anxiety disorder, social phobia, and panic disorder without agoraphobia. Thus, our lack of significant findings could have been due to the low number of recoveries observed for many of the anxiety disorders, thus reducing power to detect additional relationships.

The naturalistic design of this study can be viewed as both a strength and a limitation. Although it did not allow us to manipulate variables that might affect the course of anxiety

disorders, it did provide a view of what is occurring in the real world in terms of the course of illness in clinical populations. This study is limited in its inclusion of clinical subjects only. Thus, results may not be generalizable to nonclinical populations. The subjects in our study may have been more severely impaired by their disorders than persons with disorders who do not seek treatment. In addition, because the subjects were recruited in the late 1980s and early 1990s, the results may not be indicative of patients who received a diagnosis more recently.

Although the treatment received by patients in the study was not found to be predictive of anxiety disorder course, the lack of a relationship was not unexpected and should be interpreted with caution. The Harvard/Brown Anxiety Disorders Research Program is an observational study of anxiety disorders, and, by design, the project observes but does not manipulate the treatment received by subjects. In naturalistic studies, adjustment for treatment effects is complex because of the well-known bias for patients with the most severe problems to receive the most treatment. Future studies in this project will employ newer statistical techniques (treatment propensity score analyses) that will help to minimize biases by matching treated and untreated subjects with regard to their estimated need for treatment.

A final limitation may exist in our definitions of recovery and recurrence. One of the major difficulties in comparing the course of anxiety disorders across studies is the lack of consensus definitions of recovery and recurrence. For example, recurrence of panic disorder is defined differently in almost all of the small number of studies of panic disorder course, which makes comparison of findings difficult. Shear and others (43) noted that the characteristics of the clinical course of panic disorder are the primary reason for the difficulty of defining recurrence and stated that the mere presence or absence of panic attacks should not be the only factor in determining whether an individual has had a recurrence of panic disorder. Other factors such as level of phobic avoidance and persistence of the fear of future panic attacks should be carefully considered. During the consensus development conference on the treatment of panic disorder, a committee also noted the lack of consistency across researchers in defining how “responders” are characterized, as well as how recovery and recurrence are defined (44). They recommended the establishment of procedures to ensure comparability of studies, stating that because the frequency of panic attacks is so variable, longer time frames for observation are preferable, with 1 month the optimal time to assess whether a patient with panic disorder is recovering or having a recurrence.

Our findings highlight the importance and need for longitudinal research to map the long-term clinical course of anxiety disorders. Moreover, examination of the potential negative influences of comorbid psychiatric diagnoses on overall clinical course can add a wealth of information to our understanding of the diagnosis and treatment of these disorders. These comorbid conditions should not be considered exclusion criteria for potential participants in future anxiety disorders research. On the contrary, inclusion of patients with comorbid conditions can provide clinicians and public policy makers with rich and much needed information about the effects of psychiatric comorbidity on the long-term outcome of anxiety disorders. Delineating the role that psychiatric comorbidity has on the course of anxiety disorders will help to facilitate the refinement of existing treatments, which should improve outcomes.

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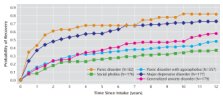

FIGURE 1.

12-Year Cumulative Probability of Recovery in Patients With Anxiety Disorders and Patients With Comorbid Major Depressive Disorder at Intake

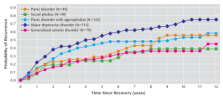

FIGURE 2.
12-Year Cumulative Probability of Recurrence in Anxiety Disorder Patients and Patients With Comorbid Major Depressive Disorder Who Recovered From Their Intake Episode

TABLE 1

Psychiatric Status Ratings in the Harvard/Brown Anxiety Disorders Research Program's Longitudinal, Prospective Follow-Up Study of Adults With a Current or Past History of Anxiety Disorders[a]

Rating	Term	Definition
6	Full criteria, severe	The patient meets the DSM-III-R or Research Diagnostic Criteria for definite disorder, has severe symptoms, or has extreme impairment in functioning.
5	Full criteria	The patient meets the criteria for definite disorder but has no extreme impairment in functioning.
4	Marked	The patient does not meet the criteria for disorder but has major symptoms of impairment resulting from this disorder (for example, a patient with a depressive episode who meets only four of the DSM-III-R criteria for major depressive episode but is not able to work).
3	Partial recovery	The patient has considerably less psychopathological impairment than patients who meet the full disorder criteria and no more than moderate impairment in functioning but shows obvious evidence of the disorder. (This category may represent worsening or improvement in the patient's prior status; for example, the patient may experience limited symptom attacks.)
2	Residual	The patient claims not to be completely his/her usual self, or the rater notes the presence of symptoms of no more than a mild degree (for example, mild anxiety in agoraphobic situations).
1	Usual self	The patient is returned to his/her usual self, without any residual symptoms of the disorder. (The patient may have significant symptoms of some other condition or disorder; if so, a psychiatric status rating should be recorded for that condition or disorder.)

[a]The rating scale used in this program is based on the Longitudinal Interval Follow-Up Evaluation (18). A separate scale was completed for each of the patient's disorders.

TABLE 2

Demographic and Clinical Characteristics of Patients at Intake and 12-Year Follow-Up in a Longitudinal, Prospective Follow-Up Study of Adults With a Current or Past History of Anxiety Disorders[a]

Characteristic	Patients With Generalized Anxiety Disorder				Patients With Social Phobia				Patients With Panic Disorder Without Agoraphobia				Patients With Panic Disorder With Agoraphobia			
	Intake (N=179)		12-Year Follow-Up (N=118)		Intake (N=176)		12-Year Follow-Up (N=109)		Intake (N=82)		12-Year Follow-Up (N=50)		Intake (N=357)		12-Year Follow-Up (N=244)	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Female	127	71	86	73	106	60	64	59	45	55	29	58	248	70	176	72
Employed full time	80	45	54	46	83	47	53	49	43	52	28	56	148	42	108	44
College graduate or more education	66	37	42	36	63	36	38	35	33	40	21	42	127	35	83	34
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age (years)	40.6	12.8	39.8	11.7	38.8	11.1	39.5	10.5	39.9	10.8	39.3	11.0	40.1	12.3	40.0	10.6
Psychiatric status rating at intake[b]	4.6	1.3	4.5	1.8	4.7	1.1	4.7	1.4	3.4	1.8	3.3	1.7	4.1	1.2	4.1	1.3
Age at illness onset (years)	21.3	15.2	19.8	13.6	14.4	8.3	14.9	8.9	34.0	13.7	33.9	11.9	26.8	10.8	26.8	9.8
Duration of intake illness episode (years)	18.1	14.1	18.9	13.9	19.1	12.8	19.8	12.7	11.0	12.3	10.0	11.0	16.6	13.8	16.8	13.4

[a] Totals exceed 100% because of comorbidity. Intake occurred in 1989–1991; 12-year follow-up data as of June 2003 are reported.

[b] Ratings based on the Longitudinal Interval Follow-Up Evaluation (18). See Table 1 for definitions of ratings.

TABLE 3

Risk of Recovery or Recurrence of Anxiety Disorders in Anxiety Disorder Patients With Comorbid Psychiatric Disorders

	Risk of Recovery in the Following Week								Risk of Recurrence in the Following Week							
	Patients With Generalized Anxiety Disorder (N=119)		Patients With Social Phobia (N=61)		Patients With Panic Disorder Without Agoraphobia (N=61)		Patients With Panic Disorder With Agoraphobia (N=135)		Patients With Generalized Anxiety Disorder (N=31)		Patients With Social Phobia (N=13)		Patients With Panic Disorder Without Agoraphobia (N=30)		Patients With Panic Disorder With Agoraphobia (N=62)	
Comorbid Psychiatric Disorder	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p	Risk Ratio	p
Generalized anxiety disorder	—	—	0.56	<0.05[a]	0.85	0.57	0.89	0.53	—	—	4.15	0.005[a]	1.99	0.09	0.66	0.19
Social phobia	0.82	0.35	—	—	0.72	0.32	1.28	0.25	1.38	0.40	—	—	0.91	0.85	1.37	0.31
Panic disorder without agoraphobia	0.76	0.42	0.37	0.17	—	—	—	—	0.48	0.48	<0.001	0.99	—	—	—	—
Panic disorder with agoraphobia	0.67	0.03[a]	1.31	0.31	—	—	—	—	1.57	0.22	1.03	0.96	—	—	—	—
Major depressive disorder	0.57	0.006a	0.65	0.12	0.75	0.30	0.54	0.007[a]	1.90	0.14	1.62	0.40	1.62	0.28	1.85	0.05a
Alcohol or other substance use disorder	0.20	0.005a	0.35	0.08	0.43	0.17	1.18	0.64	3.09	0.05[a]	0.001	0.99	0.001	0.99	1.67	0.21

[a] Significant effect on recovery or recurrence.