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COMORBIDITY IN CHRONIC SHYNESS

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INTRODUCTION

Shyness has long been described as a character trait, an attitude, or a state of inhibition [Lewinsky, 1941]. Researchers investigating shyness have attempted to develop operational definitions of this human experience. For example, shyness has been defined as discomfort, inhibition, and awkwardness in social situations, particularly in situations with unfamiliar people [Buss, 1985], or as a "tendency to avoid social interaction and to fail to participate appropriately in social situations" [Pilkonis, 1977a, p 585]. The experience of moderately shy individuals has been described as "a reluctance to approach people or enter situations where they cannot readily shrink from the notice of others" [Zimbardo et al., 1974, p 70]. Chronic shyness has been defined as a fear of negative evaluation accompanied by emotional distress or inhibition that interferes significantly with participation in desired activities and with the pursuit of personal and professional goals [Henderson, 1994]. In studies of childhood shyness, shyness was defined as timid and withdrawn behavior when exposed to new people [Plomin and Daniels, 1986].

Various domains of difficulty have also been identified to further describe the condition of shyness. Buss [1980], for example, classified two domains: fearful shy individuals versus self-conscious shy individuals. Pilkonis [1977a,b] distinguished the privately shy from the publicly shy. Zimbardo [1977] classified shyness into three subgroups: individuals who did not seek social interaction and preferred to be alone; individuals who were reluctant to approach others, were socially unskilled, and had low self-confidence; and individuals who were concerned about violating social rules and others' expectations.

The definitions of shyness overlap with components described in social phobia, including fear of negative evaluation, interference with functioning, and maladaptive thinking patterns. The relationship between these two syndromes has received little attention. Preliminary comparisons involved reports of the prevalence rates for each condition. In the original research with normative samples, Zimbardo et al. [1974] reported that 40% (± 3) individuals considered themselves to be shy. Since that time, that percentage has increased to nearly 50% (48.7% ± 2) [Carducci and Zimbardo, 1995]. In contrast, the occurrence rate of social phobia is approximately 3% of the general population [American Psychiatric Association, 1987, 1994], with a lifetime prevalence of 12% [Kessler et al., 1994].

Some authors have viewed shyness as a more heterogeneous phenomenon due to the various subgroups or differing domains of social difficulty that have been identified [i.e., Buss, 1985]. Shyness has also been described as a sub-clinical condition representing a milder syndrome than social phobia [Turner et al., 1990]. Finally, childhood shyness has been suggested as a possible developmental precursor to social phobia [Stemberger et al., 1995].

Comparing shyness and social phobia has been difficult, due partly to the fact that shyness is considered a personality trait in normal individuals. Furthermore, shyness is not only a construct used by researchers who study personality psychology, but it is also a word used in common parlance by ordinary people. In contrast, social phobia is a label developed to categorize individuals in treatment for clinically significant disorders [APA, 1987, 1994].

Consequently, the number of individuals who label themselves as shy is much larger, and the characteristics of these individuals much more variable, than the characteristics of individuals who seek treatment for chronic, debilitating shyness. Characteristics of the chronically shy in treatment have not been well documented, in contrast to the characteristics of clinically diagnosed social phobics treated in anxiety disorders clinics.

In order to determine and describe the clinical profile of the chronically shy, we are studying the characteristics of our Shyness Clinic population. In this study, we describe the clinical profile of treatment-seeking, chronically shy individuals. We identify the coexistence of Axis I and II disorders and compare our findings with findings reported in previous comorbidity research with samples of social phobics.

METHODS

Data included in this study were culled from the records of 114 consecutively evaluated individuals seeking treatment at The Palo Alto Shyness Clinic between 1991 and 1997. Upon presentation, patients were interviewed by an experienced clinician using the Anxiety Disorders Interview Schedule-Revised [ADIS-R; DiNardo and Barlow, 1988] or ADIS-IV [DiNardo et al., 1994] to assess for the presence of social phobia and other DSM diagnoses. Patients presenting to the

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clinic between 1991 and 1992 were administered the social phobia and substance abuse sections of the ADIS only (22 patients), and were given the diagnosis of either social phobia and/or substance abuse if criteria were met. Patients presenting to the clinic after 1992 were evaluated based on all sections of the ADIS and were assigned all diagnoses for which patients met criteria.

Two additional diagnostic instruments, the MMPI [Butcher, 1989; Greene, 1991] and the MCMI [Millon, 1983], were used in conjunction with the structured interview. While the MMPI was used from the outset, the MCMI was added to the evaluation in 1993, resulting in 82 patients who were assessed with this instrument. All patients completed self-report measures of anxiety and depression at the time of their structured interview. These scales included the Beck Depression Inventory [Beck et al., 1961], the State-Trait Anxiety Inventory [Spielberger et al.,1970], the Coopersmith Self-Esteem Inventory [Coopersmith, 1959], the Personal Feelings Questionnaire-Revised [Harder and Zalma, 1990], the Revised Cheek and Buss Shyness Scale [Cheek, 1983] and the Stanford Shyness Survey [Zimbardo et al., 1974].

The sample included 69 men (61%) and 45 women (39%) with a mean age of 35 ± 9.9 years (ranging from 16 to 65 years). Demographic data for this sample are presented in Table 1.

TABLE 1. Demographic profile of chronically shy patients

Characteristic	n[a]	%
Sex		
Female	45	39.5
Male	69	60.5
Age		
16–29	34	29.8
30–44	61	53.5
45–64	18	15.8
65>	1	.9
Mean age	35.3 ± 9.9	
Marital status		
Never married	85	74.6
Married	15	13.2
Separated	3	2.6
Divorced	9	7.9
Widowed	2	1.8
Education		
Less than high school	3	2.6
High school, some college	38	33.3
College	32	28.1
Advanced degree (partial and completed)	41	36.0
Mean education	16.2 ± 3.2	
Occupation		
Employed	83	72.8
Unemployed	9	7.9
Student	19	16.7
Homemaker	3	2.6
Ethnicity		
Caucasian	97	85.1
African American	2	1.8
Hispanic	4	3.5
Asian	8	7.0
Other	3	2.6

[a] *n = 114.*

RESULTS

One hundred eleven of the 114 (97%) patients evaluated with the ADIS were assigned a diagnosis of generalized social phobia and 3 patients (3%) were assigned a diagnosis of non-generalized social phobia (see Table 2). Sixty-five patients (57%) met criteria for a second Axis I diagnosis. The most relevant additional disorders were dysthymia 33 (35%), generalized anxiety disorder 31 (33%), and specific phobia 19 (20%). Major depressive disorder and current substance abuse were reported infrequently, 7 (7%) and 5 (4%), respectively. Scores from the self report-measures are listed in Table 3. Responses to The Stanford Shyness Survey indicated that each of the 114 patients (100%) labeled themselves a shy person.

The suggested frequency of Axis I and Axis II disorders differed between the MCMI and MMPI. These data are presented in Tables 4 and 5. According to the MCMI (n = 82), 33 patients (40%) met criteria for at least one additional Axis I disorder. Of these patients, 29 (35%) met criteria for dysthymia, and 13 (16%) for generalized anxiety disorder. Several of these patients met criteria for both. Seventy-seven patients (94%) met criteria for at lest one Axis II disorder. The most common personality disorders were avoidant (55 patients; 67%), schizoid (29 patients, 35%), and dependent (19 patients; 23%). Less common personality disorders were passive aggressive (9 patients; 11%), schizotypal (7 patients; 9%) , and obsessive compulsive (6 patients; 7%).

Results of the MMPI (n = 107) revealed that 60 patients (56%) were given at least one Axis I diagnosis. Anxiety disorder (34 patients; 32%) was the most common, followed by mood disorder (33 patients; 31%), of which dysthymia (30 patients; 28%) was most frequent. Substance abuse (9 patients; 8%) and schizophrenia (8 patients; 7%) were also suggested. Sixty patients (56%) also met criteria for an Axis II personality disorder. According to the MMPI, the most common Axis II disorder was dependent personality disorder (26 patients; 24%), followed by compulsive (22 patients; 21%), passive aggressive (16 patients; 15%), and schizoid (11 patients; 10%) personality disorders.

DISCUSSION

At first glance, our sample may appear to reflect a group of patients with social phobia very like those found in anxiety disorders clinics. They key features of social phobia, such as excessive worry, distress, avoidance, and inhibition, seem to be similarly represented in our sample of patients. The social phobia severity

TABLE 2. Frequency of current axis I disorders in chronically shy patients as measured by the ADIS-III-R and ADIS-IV

Axis I disorder	n[a]	n[b]	%
Generalized social phobia	111	—	97.4
Mean severity rating for generalized Social phobia[c]	86	—	6.2 ± 1.0
Non-generalized social phobia	3	—	2.6
Dysthymia	—	33	35.8
Generalized anxiety disorder	—	31	33.6
Specific phobia	—	19	20.6
Major depression	—	7	7.6
Substance abuse	5	—	4.4
Alcohol abuse	2	—	1.8
Alcohol dependence	2	—	1.8
Depressive disorder NOS[d]	2		1.8
Post traumatic stress disorder	—	1	1.0
Bipolar disorder	—	1	1.0
Body dysmorphic disorder[d]	1	—	.9
Panic disorder	—	0	0
Agoraphobia	—	0	0
Obsessive compulsive disorder	—	0	0

[a]n = 114.
[b]n = 92.
[c]Severity ratings were obtained from a nine pont severity rating scale from the ADIS-IV. Severity ratings from the ADIS-III-R were not obtained.
[d]Disorders were derived during the structured interview but were not a specific category of the ADIS.

TABLE 3. Means and standard deviations for questionnaire scores

Measure	M (n)[a]	SD
Beck depression inventory	12.7 (114)	8.3
State-trait anxiety inventory - state[b]	68.8 (111)	26.8
State-trait anxiety inventory - trait[b]	88.2 (110)	16.2
Coopersmith	42.9 (113)	20.6
Revised Buss and Cheek shyness scale	4.0 (105)	.5
Personal feelings questionnaire - shame	2.0 (111)	.8
Personal feelings questionnaire - guilt	1.9 (111)	.8

[a]Subject numbers vary because of differences in earlier evaluations.
[b]Percentiles.

ratings of patients (M = 6.2) were consistent with those found in patients diagnosed with generalized social phobia in anxiety disorders clinics [Bruch and Heimberg, 1994; Heimberg et al., 1990]. Similar to previous comorbidity studies of social phobia where the ADIS and the ADIS-R were used, a large proportion of our patients received a second Axis I diagnosis (57%, ADIS; 40% MCMI; 56% MMPI). Proportions ranged from 43% to 67% in earlier studies [Barlow et al., 1986; Sanderson et al., 1990; Turner et al., 1991]. However, our ADIS percentages were likely underestimates because only the social phobia and substance abuse sections were recorded before 1993.

While the rates of additional diagnoses in this sample were comparable, an examination of the frequencies of certain types of additional diagnoses revealed dissimilarities. For example, in clinical studies of patients with social phobia, the more prevalent comorbid disorders included higher rates of simple phobia, obsessive-compulsive disorder, and panic disorder with agoraphobia [Barlow et al., 1986; Sanderson et al., 1990]. Agoraphobia was diagnosed in a third of the cases in one study [Solyom et al., 1986]. Additionally, high lifetime rates of major depression have been found in samples of social phobics [Stein et al., 1990; Van Ameringen et al., 1991], as well as alcohol abuse [Schneier et al., 1989; Van Ameringen et al., 1991].

In contrast, the distribution of additional diagnoses in our sample showed a different pattern. No patient received a diagnosis of panic disorder with or without agoraphobia. Additionally, we found low rates of major depression and alcohol abuse/dependence [Bruch et al., 1992]. The most frequent comorbid disorder in our sample was dysthymia, occurring more frequently than in other samples of social phobics. Generalized anxiety disorder also co-occurred more frequently than in samples from anxiety disorders clinics.

The differences in the distribution of additional diagnoses may be because the Shyness Clinic is known to focus primarily on chronic shyness, so that symptoms similar in severity may be more ego-syntonic due to their chronicity or longevity. On the other hand, social phobics presenting to anxiety disorders clinics may seek treatment because of other primary diagnoses. For example, panic attacks may lead to social phobia, simply because panic symptoms are socially disruptive and draw unwanted attention to the self.

The prevalence of Axis II diagnoses in the vast majority of our patients suggests that symptoms are ego-syntonic due to chronicity of shyness, with 56% receiving at least one diagnosis according to the MMPI and 94% according to the MCMI. While the MMPI-derived rate in this study is comparable to the prevalence rates reported in studies of social phobia [Jansen et al., 1994; Sanderson et al., 1994], the rate according to the MCMI is higher, with almost all of our patients meeting criteria for at least one personality disorder according to the MCMI. Brooks et al. [1996] used the MCMI to assess 19 social phobic subjects and reported just 63% receiving one or more personality disorder diagnoses. Only the sample of Emmanuel et al. [1993] with the SCID-II is comparable to ours, with 77% of a sample of 44 social phobics meeting criteria for one or more.

TABLE 4. Frequency of the axis I disorders in chronically shy patients as measured by the MCMI and the MMPI[a]

Axis I disorder MCMI	n[b]	%	MMPI	n[c]	%
Dysthymia	29	35.4	Anxiety disorder	34	31.8
Generalized anxiety	13	15.9	Dysthymia	30	28.0
Alcohol abuse	3	3.7	Substance abuse	9	8.4
Substance abuse	1	1.2	Schizophrenia	8	7.5
Major depression	1	1.2	Major affective disorder	5	4.7
Schizophrenia	1	1.2	Paranoid/delusional disorder	3	2.8
Schizophreniform	1	1.2	Major depression	2	1.9
			Thought disorder	1	.9
			Somatoform disorder	1	.9

[a]*Subject numbers vary because of differences in earlier evaluations.*
[b]*n = 82.*
[c]*n = 107.*

The most frequently occurring personality disorder in our sample was avoidant. When we compare our rate with studies in which different assessment tools were used, there is considerable variability in the frequency of this disorder [Turner et al., 1986]. Similar rates were reported in several studies using structured interviews with social phobia patients [Alnaes and Torgersen, 1988; Emmanuel et al., 1993; Herbert et al., 1992; Schneier et al., 1991], but much lower rates were reported as well, ranging from 22% to 37% [Jansen et al., 1994; Sanderson et al., 1994; Turner et al., 1991].

When comparing our MCMI results with other studies in which the MCMI was used, the incidence of avoidant personality disorder in our sample remains consistently higher. The MCMI-derived rate reported in samples of social phobics ranged from 32 to 37%

TABLE 5. Frequency of the axis II disorders in chronically shy patients as measured by the MCMI and the MMPI[a]

AXIS II disorder clusters	MCMI n[b]	MCMI %	MMPI n[c]	MMPI %
Cluster A				
Paranoid	0	0	5	4.7
Schizoid	29	35.4	11	10.3
Schizotypal	7	8.5	0	0
Cluster B				
Histrionic	0	0	1	.9
Antisocial	3	3.7	1	.9
Narcissistic	2	2.4	0	0
Borderline	2	2.4	1	.9
Cluster C				
Dependent	19	23.2	26	24.3
Avoidant	55	67.1	—	—
Passive aggressive	9	11.0	16	15.0
Compulsive	6	7.3	22	20.6

[a]*Subject numbers vary because of differences in earlier evaluations.*
[b]*n = 82.*
[c]*n = 107.*

[Brooks et al., 1996; Reich et al., 1989; Trans and Chambless, 1995].

Our high incidence of avoidant personality may be related to the demographics of our geographical area. For example, a large number of people in the San Francisco bay area are working in technical professions that involve solitary working habits and a degree of isolation. There is also the possibility that more severely impaired individuals seek treatment with us because we are one of the older shyness treatment programs.

The rate of schizoid personality disorder in our sample was also markedly higher than the rate reported in previous studies of social phobics. Across the social phobia samples, no diagnoses were given for this personality disorder in all studies in which the SCID-II was used [Alnaes and Torgersen, 1988; Emmanuel et al., 1993; Jansen et al., 1994; Sanderson et al., 1994; Turner et al., 1991]. When the MCMI was used, the reported occurrence of schizoid personality disorder ranged from 21 to 26% [Reichh et al., 1989; Brooks et al., 1996], lower than the percentage (35%) in our sample diagnosed with the MCMI.

The higher incidence of schizoid personality disorder revealed in our sample suggests another dimension that may differentiate this group of people from those in samples studied in anxiety disorder clinics. Nevertheless, whether we are viewing different points on a single continuum or qualitatively different clinical profiles remains a question for future research.

The prevalence of dependent personality disorder in our sample was more consistent with earlier studies of social phobics. The rate found in tis study was either higher or comparable to other findings [Brooks et al., 1996; Emmanuel et al., 1993; Jansen et al., 1994; Reich et al., 1989; Sanderson et al., 1990; Turner et al., 1989], with the exception of Alnaes and Torgersen [1988] who reported that 100% of 10 social phobics received a diagnosis of dependent personality disorder.

Overall, patients in our sample exhibit differences on several measures. However, it is important to acknowl-

edge factors that may limit the validity of our findings. One is that the smaller sample sizes of our comparison studies may effect the viability of making comparisons across studies, due to the differences in sample sizes. Another is that making comparisons across studies with different diagnostic instruments may be questionable. There is a lack of evidence for concurrent validity with the SCID and the MCMI, which may reduce the defensibility of making comparisons between MCMI and SCID diagnoses. However, evidence for adequate concurrent validity between these two instruments was reported in a study using a sample primarily composed of social phobics [Renneberg et al., 1992].

The use of the MCMI as a diagnostic tool may also influence the results of this study. It is arguable that the MCMI over-diagnoses personality disorders, thereby explaining the high incidence of avoidant and schizoid diagnoses found in this sample. Although adequate concurrent validity with the SCID would suggest otherwise, further study is clearly warranted to understand whether and how much these differences are replicable across Shyness Clinic samples versus other clinical settings.

Despite the overlap found between our sample and samples of social phobics, the comorbidity found in treatment-seeking shy individuals suggests certain characteristics that are not evident in samples of social phobics. Future research is needed to examine the extent of these differences, to focus on defining shyness treatment samples, and to compare these results with shyness in non-clinical settings.

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