Comorbidity in Chronic Shyness

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Abstract

The data reported were gathered on 114 patients who presented at The Palo Alto Shyness Clinic between 1991 and 1997. All subjects were evaluated using the Anxiety Disorders Interview Schedule (ADIS; DSM III-R or IV) and were administered the Minnesota Multiphasic Personality Inventory (MMPI-I or MMPI-II), the Millon Clinical Multiaxial Inventory (MCMI), or both. Ninety-seven percent of this sample received an ADIS diagnosis of generalized social phobia, and 57% met criteria for a second Axis I diagnosis. The most common disorders in addition to social phobia were dysthymia (29%) and generalized anxiety disorder (27%). According to the MCMI, 94% of the sample had a coexisting personality disorder, with avoidant personality disorder (67%) the most frequent, followed by schizoid (35%) and dependent (23%) personality disorders. MMPI results suggested that 56% of the sample met criteria for an Axis II diagnosis, with dependent personality (24%) the most frequent, followed by compulsive (21%) and passive-aggressive (15%) personality disorders.

Comorbidity in Chronic Shyness

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 objective 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" , p. 70). Chronic shyness has been defined as a fear of negative evaluation accompanied by emotional distress or inhibition which interferes significantly with the participation of desired activities and with the undertaking 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 In studies of childhood shyness, shyness was defined as timid and withdrawn behavior when exposed to new people (Plomin & Daniels, 1986).

Various domains of difficulty have also been identified to further define the condition of shyness. Buss (1985), for example, classified two domains, fearful shy individuals versus self-conscious shy individuals. In the former group, fear of novelty and autonomic reactivity was hypothesized to be the major component. In the latter group, excessive

awareness of public aspects of one's self was the central element. Pilkonis (1977) distinguished the privately shy from the publicly shy, wherein the privately shy were socially skilled but self-doubting and uncomfortable and the publicly shy were more visibly uncomfortable and less skilled. Another subclassification of shyness defined by Zimbardo (1977) consisted of three groups. The first group was composed of individuals who did not seek social interaction and preferred to be alone. The second group included individuals who were reluctant to approach others, were socially unskilled, and had low self-confidence. The last group comprised individuals who were confined by societal expectations and were concerned about violating these expectations.

The definition of shyness also encompasses several of the central components found in social phobia, including fear of negative evaluation, interference with functioning, and negative cognitions. The relationship between these two syndromes has also been briefly examined. Among the preliminary comparisons which have been made thus far are the prevalence rates of each condition. In the original research with normative samples, culminating in the Shyness Clinic, Zimbardo et al. (1974) reported that the percentage of individuals who considered themselves to be shy was 40% ($\pm$ 3). Since that time, the percentage of individuals reporting shyness has increased to nearly 50% (48.7% $\pm$2) (Carducci & Zimbardo, 1995). In contrast, the occurrence rate of social

phobia is approximately 3% of the general population (American Psychiatric Association, 1987; APA, 1994) with a lifetime prevalence of 12% (Kessler et al., 1994). Additionally, compared with social phobia, shyness has been viewed as a more heterogeneous phenomenon due to the various subgroups or domains which have been identified (i.e., Buss, 1985). Shyness has also been conceptualized as a subclinical condition representing a milder syndrome than social phobia . And lastly, it has been suggested that shyness may be a possible developmental precursor to social phobia (Stemberger et al., 1995).

Comparing shyness and social phobia has been somewhat difficult due in part to the fact that shyness, a trait term, is part of common language as well as a psychological construct from personality theory research, rather than a formal DSM (APA, 1987; APA, 1994) category, like social phobia which is derived from research with clinical samples. However, it is clear that additional research needs to be conducted to determine more accurately the clinical profile of shyness as well as the relationship between shyness and social phobia. And while the number of individuals suffering from shyness is undoubtedly large, research with shyness treatment samples has not been well documented in contrast to clinical studies of social phobia. There may be many more distinguishing features among people who present to a shyness clinic and those who present to an anxiety disorders clinic with social phobia.

To that end, we are studying the characteristics of people who seek treatment for shyness at The Palo Alto Shyness Clinic. To our knowledge, no studies have been conducted regarding the presence of comorbidity in shyness treatment samples. The purpose of this study was to examine the coexistence of Axis I and II disorders in these patients to identify the clinical profile of chronically shy patients and to further delineate the similarities and dissimilarities between chronic shyness and social phobia using this study and previous comorbidity research of social phobia samples.

Method

Data included in this study were culled from the records of 114 consecutively evaluated individuals seeking treatment at The 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 & Barlow, 1988) or ADIS-IV to assess for the presence of social phobia and other DSM diagnoses. Patients presenting to the 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. Additionally, patients were assessed in clinical interviews by an experienced clinician according to DSM criteria. However, because additional diagnoses made during these clinical evaluations were not derived from the

ADIS, they were not included in the analyses. Patients presenting to the clinic after 1992 were evaluated based on all sections of the ADIS structured interview and were assigned all diagnoses for which patients met criteria.

Two additional diagnostic instruments, the MMPI (Butcher, 1989) and the MCMI (Millon, 1983), were used in conjunction with the structured interview to add additional data to the assessment of Axis I and Axis II disorders. 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 & Zalma 1990), the Revised Cheek and Buss Shyness Scale (Cheek, 1983) and the Stanford Shyness Survey (Zimbardo et al., 1974). All patients were also given the Multimodal Life History Questionnaire (Lazarus, 1980), but these data were not included in this study.

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

Results

One hundred and 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 prevalent additional disorders were dysthymia 33 (29%), generalized anxiety disorder 31 (27%), and specific phobia 19 (17%). Major depressive disorder and current substance abuse were reported infrequently, 7 (6%) 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 least one Axis II disorder. The most common personality disorders were avoidant personality disorder (55 patients; 67%), schizoid personality disorder (29 patients; 35%), and dependent personality disorder (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 suggested 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

One hundred and eleven patients (97%) received a diagnosis of generalized social phobia and three patients (3%) received a diagnosis of non-generalized social phobia according to the ADIS. Due to the shared cognitive and behavioral patterns in chronic shyness and social phobia, it was reasonable to expect that most of the patients would receive a diagnosis of social phobia. The severity ratings of patients given a diagnosis of generalized social phobia (M=6.2) were consistent with severity ratings found in patients diagnosed with generalized social phobia in an

anxiety disorders clinic (Bruch, 1994; Heimberg et al., 1990).

According to each instrument, the ADIS, the MCMI, and the MMPI, a large proportion of patients received a second Axis I diagnosis, 57%, 40%, and 56%, respectively. It should be noted, however, that the comorbidity reported by the ADIS may have been underestimated due to the limited number of sections used in earlier evaluations. Only the social phobia and substance abuse sections of the ADIS were recorded prior to 1993.

The number of additional Axis I diagnoses from our sample are similar to the findings reported in previous comorbidity studies of social phobia as measured by the ADIS and the ADIS-R (Barlow et al., 1986; Sanderson et al., 1990; Turner et al., 1991). Data from previous samples of social phobia indicated high rates of one or more additional disorders (range 43% - 67%) comparable to the rates in this study.

Although the rates of additional diagnoses from this study appear comparable to rates reported in social phobia samples, an examination of the frequencies of certain types of additional diagnoses reveals dissimilarities in the patterns of distribution between the additional Axis I diagnoses given to patients with social phobia and to patients with chronic shyness. This difference in distribution may suggest a different profile for each syndrome.

In clinical studies of patients with social phobia, the more prevalent comorbid disorders included high rates of simple phobia and panic disorder with agoraphobia (Sanderson et al., 1990). Obsessive-compulsive disorder has also been reported among social phobia patients (Barlow et al., 1986), as well as agoraphobia, which in one study was found to be comorbid with social phobia in a third of the cases (Solyom et al., 1986). In epidemiological studies, simple phobia, agoraphobia, and obsessive compulsive disorder had the highest co-occurrence rate with social phobia (Davidson et al., 1993; Schneier et al., 1992). 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.).

In contrast, the distribution of additional diagnoses in this sample of chronically shy patients according to the ADIS demonstrates a different disbursement. No patient received a diagnosis of panic disorder with or without agoraphobia. The co-occurrence of obsessive-compulsive disorder or agoraphobia was also not found. Additionally, low rates of major depression and alcohol abuse/dependence was found. The disorder which was comorbid most frequently in this sample was dysthymia, with a rate higher than that found in samples of patients with social phobia. Generalized anxiety disorder was also found to co-occur frequently in this sample and in comparison with samples of social phobia.

The distribution of additional diagnoses in this sample of shy patients is possibly explained by the fact that The Shyness Clinic is known to focus primarily on shyness and may draw from a population whose symptoms are more ego-syntonic, less visibly disruptive, but equally emotionally debilitating. Patients with social phobia presenting to anxiety disorder clinics may display more overt symptomatology and present because of other primary diagnoses.

Axis II disorders were suggested in the vast majority of our patients, with 56% receiving at least one diagnosis according to the MMPI and 94% according to the MCMI. The MMPI-derived rate found in this study is comparable to the prevalence rates reported in studies of social phobics . According to the MCMI, however, almost all of our patients met criteria for at least one personality disorder, resulting in a higher rate, and in some cases considerably higher, than that reported in previous studies of social phobics. Brooks et al. (1996) used the MCMI to assess 19 social phobic subjects, and reported 63% receiving one or more personality disorder diagnoses, with avoidant, dependent, schizoid, and passive aggressive the most frequently assigned. Only Emmanuel et al.'s (1993) sample is comparable to this sample with regard to the number of subjects meeting criteria for at least one personality disorder. Based on SCID-II assessments, the authors found that 77% of a sample of 44 social phobics met criteria for an Axis II disorder.

Although the MCMI-derived prevalence rates of patients receiving at least one personality disorder in this study are generally higher than those reported in previous studies, the disbursement of personality disorders among the three clusters is consistent with other studies. Similar to Brooks et al. (1996) and Jansen et al. ‘s (1994) findings, avoidant, schizoid, and dependent personality disorders were the most prevalent in our sample, placing them in Cluster C followed by Cluster A. The highest prevalence of personality disorders reported by Emmanuel et al. (1993) and Sanderson et al. (1994) was also found in Cluster C but followed by Cluster B.

Within Cluster C, the most frequently occurring personality disorder in our sample was avoidant personality according to the MCMI, and when comparing our rate with studies of social phobia, particularly studies utilizing different assessment tools, there is considerable variability in rates. For example, several studies using structured interviews with social phobia patients have found avoidant personality disorder rates which parallel the rates in this study (Alnaes & Torgersen, 1988; Emmanuel et al. 1993; Herbert et al., 1992; Schneier et al., 1991). However, much lower rates have been reported as well, ranging from 22% to 37% .

When comparing our MCMI-derived results with other studies also utilizing the MCMI, we found the incidence of avoidant personality disorder in this sample to be

consistently higher. The MCMI-derived rate reported in samples of patients with social phobia ranged from 32% to 37% (Brooks et al., 1996; Reich et al., 1989; Tran & Chambless, 1995). The greater frequency of MCMI-derived diagnoses of avoidant personality disorder found in chronic shyness compared to the rates reported in social phobia, again, point to the possibility that chronic shyness and social phobia are different syndromes which are inadequately delineated and labeled.

The high rate of avoidant personality disorder in this sample may be explained by the possibility that more severely impaired individuals seek treatment with us. However, an equally plausible explanation is that self-reported chronic shyness is associated with greater impairment and distress in the general population than has been acknowledged or recognized (Turner et al., 1990). We suggest that chronic shyness frequently includes the major components of avoidant personality disorder, particularly the belief that the self is unappealing, inferior, and vulnerable. Whether we are viewing different points on a single continuum from occasional social anxiety to shyness to social phobia, or qualitatively distinct syndromes remains a question for future research.

The incidence of schizoid personality disorder was also significant in this sample shy patients. Although less frequent than avoidant personality disorder, the rate of schizoid personality disorder was higher than the rates in

previous studies of social phobia. Among social phobia samples, no diagnoses were given for this personality disorder in all studies in which the SCID-II was used (Alnaes & Torgersen, 1988; Emmanuel et al., 1993, Jansen et al., 1994; Sanderson et al., 1994; Turner et al., 1991). When the MCMI was used with social phobia samples, the reported occurrence of schizoid personality disorder ranged from 21% to 26% (Reich et al., 1989; Brooks et al., 1996), lower than the occurrence in this study. The higher incidence of schizoid personality disorder found in this sample appears to be another factor differentiating chronic shyness from social phobia.

The prevalence of dependent personality disorder in this sample was more consistent across studies of social phobia, with the rate found in this study either higher or comparable to other findings (Brooks et al.; Emmanuel et al.; Jansen et al.; Reich et al.; Sanderson et al.; Turner et al.), with the exception of Alnaes and Torgersen (1988) who reported that 100% of 10 social phobics received a diagnosis of dependent personality disorder.

While making comparisons across studies, it is important to acknowledge limitations, such as the considerable variation in sample size. When sample sizes are small, caution should be observed in comparing the prevalence rates of Axis I and Axis II disorders. The concurrent validity of the SCID and the MCMI may be another factor which needs to be considered, although some evidence for adequate concurrent

validity was reported in one study using a sample primarily comprised of social phobics (Chambless et al., 1994). Lastly, because this is one of the first studies which attempts to define the clinical profile of shy individuals,caution must be observed when generalizing results from this sample to other settings.

The key features of social phobia, such as excessive worry, distress, avoidance, and inhibition seem to be similarly represented in this sample of shy patients. Of particular interest, however, is the distribution of additional clinical features which may suggest a different profile in chronic shyness than that found in social phobia. For example, the absence of disorders frequently found in social phobia, such as panic disorder, agoraphobia, and obsessive-compulsive disorder, the low rates of major depression and alcohol use or abuse found in this sample, and the greater prevalence of avoidant personality disorder and schizoid personality disorder contrasts with many studies of social phobia.

The comorbidity found in this sample of chronically shy patients lends support that despite the overlap of social phobia and chronic shyness, the two syndromes maintain qualitative differences. Furthermore, the findings of this study also suggests that chronic shyness may be as equally debilitating as social phobia due to the marked prevalence of personality disorders. Future research is needed to continue examining the extent of these differences and to focus on

defining chronic shyness in treatment samples and comparing it with social phobia as well as with shyness in the community at large.

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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

Table 2.

Frequency of Axis I Disorders in Chronically Shy Patients as Measured by the ADIS-III-R and ADIS-IV

Axis I Disorder	n[a]	%
Generalized Social Phobia	111	97.4
Mean Severity Rating for Generalized Social Phobia[b]	86	6.2 ±1.0
Non-generalized Social Phobia	3	2.6
Dysthymia	33	29.0
Generalized Anxiety Disorder	31	27.2
Specific Phobia	19	16.7
Major Depression	7	6.1
Substance Abuse	5	4.4
Alcohol Abuse	2	1.8
Alcohol Dependence	2	1.8
Depressive Disorder NOS[c]	2	1.8
Post Traumatic Stress Disorder	1	.9
Bipolar Disorder	1	.9
Body Dysmorphic Disorder[c]	1	.9
Panic Disorder	0	0
Agoraphobia	0	0
Obsessive Compulsive Disorder	0	0

[a] n=114 [b] Severity ratings were obtained from a 9 point severity rating scale from the ADIS-IV. Severity ratings from

the ADIS-III-R were not obtained. [C]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 & 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.

Table 4.

Frequency of the Axis I Disorders in Chronically Shy Patients as Measured by the MCMI and the MMPI

Axis I Disorder

MCMI	n[a]	%	MMPI	n[b]	%
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	5	4.7
Schizophrenia	1	1.2	Disorder		
Schizophreniform	1	1.2	Paranoid/Delusional	3	2.8
			Disorder		
			Major Depression	2	1.9
			Thought Disorder	1	.9
			Somatoform Disorder	1	.9

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

Table 5.

Frequency of the Axis II Disorders in Chronically Shy Patients as Measured by the MCMI and the MMPI

AXIS II Disorder	MCMI		MMPI	
Clusters	*n*[a]	%	*n*[b]	%
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

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

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