Somatization

A Debilitating Syndrome in Primary Care

Lesley A. Allen, Ph.D., Michael A. Gara, Ph.D. Javier I. Escobar, M.D., Howard Waitzkin, M.D. Roxane Cohen Silver, Ph.D.

Somatization is a significant problem for clinical medicine. Unlike somatization disorder, which is relatively rare, abridged somatization, a less severe form of somatization, is prevalent in primary care clinics. The authors examined the clinical status and functioning of patients diagnosed with a depression or anxiety disorder comorbid with abridged somatization and compared them with patients diagnosed with a depression or anxiety disorder alone. The authors examined severity of physical functioning and psychopathology in relation to diagnostic status. Patients diagnosed with both abridged somatization and a depression or anxiety disorder were more physically impaired and more anxious than those diagnosed with a depression or anxiety disorder alone. The results suggest that abridged somatization frequently coexists with depression and anxiety and thus complicates the presentation of these disorders. (Psychosomatics 2001; 42:63–67)

Patients presenting with multiple, medically unexplained physical symptoms are prevalent in primary care^{1,2} and experience substantial functional impairment. Such impairment has been observed not only in patients whose symptoms are numerous enough to meet full criteria for somatization disorder³ but also in those whose symptoms meet the less restrictive criteria of abridged somatization.^{4,5} Abridged somatization, a widely used construct for less severe forms of somatization, is characterized by four or more unexplained physical symptoms in men and six or more unexplained physical symptoms in women.^{4,6} Escobar et al.^{6,7} have found the incidence of abridged somatization to be 4.4% in the general population and 22% in primary care. These data suggest that abridged somatization is considerably more prevalent than full somatization disorder, the prevalence of which has been estimated at 0.03% to 0.38% in the general population.^{6,8} The high rates of disability, medical utilization, and psychiatric comorbity associated with abridged somatization highlight the need for systematic research on this syndrome.^{4,9}

Somatic symptoms are especially common in patients

with other psychiatric complaints, such as those who have depression and/or anxiety disorders.^{10–13} The clinical significance of somatic complaints when they accompany psychiatric disorders has not been adequately assessed. In this paper, we examine the clinical status and functioning of primary care patients diagnosed with abridged somatization comorbid with depression or anxiety. We hypothesized that depression or anxiety co-occurring with abridged somatization would be associated with greater impairment than nonsomatoform depression and/or anxiety.

Received March 21, 2000; revised June 30, 2000; accepted July 25, 2000. From Department of Psychiatry, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School, Piscataway, New Jersey; Division of Community Medicine, University of New Mexico, Albuquerque, New Mexico; Department of Psychology and Social Behavior, School of Social Ecology, University of California, Irvine, California.. Address correspondence and reprint requests to Dr. Allen, Department of Psychiatry, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854.

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METHODS

Procedures

We obtained data from a large sample (n = 1,456) of new ambulatory primary care patients examined at the North Orange County Community Clinic, a university-affiliated outpatient clinic in Anaheim, California. We invited adult patients seeking treatment at the clinic for the first time to take part in our study. Patients who agreed to participate completed informed-consent forms, a structured diagnostic interview to assess psychopathology and functional status, and a medical evaluation from a primary care physician. We excluded data from one of the 1,456 patients because of missing information. Analyses include data from 1,455 patients.

Of the patients who were initially approached for our study, 50% agreed to participate. We examined the demographic differences between the participants and nonparticipants. Only level of education distinguished participants from nonparticipants with the former group having, on average, 1 year more education than the latter.

Measures

We assessed psychiatric diagnoses with the Composite International Diagnostic Interview (CIDI), a structured clinical interview used to elicit symptoms and DSM-III-R diagnoses of somatization disorder, hypochondriasis, major depressive disorder, dysthymia, generalized anxiety disorder, panic disorder, agoraphobia, and simple phobia.¹⁴ One additional diagnostic category was considered, abridged somatization, to identify individuals who experienced multiple unexplained somatic symptoms but failed to meet criteria for full somatization disorder. Men who reported a lifetime history of at least four unexplained physical symptoms and women who reported at least six unexplained physical symptoms were diagnosed with abridged somatization. The physical functioning scale from the RAND-MOS Short Form Health Survey (SF-36) was used as a measure of functional impairment.¹⁵

RESULTS

Demographics

The 1,455 participants ranged in age from 18 to 66 years old, with 55% of participants being women. The ethnic backgrounds of the participants were as follows: 36.6%

U.S.-born non-Latino, 14% U.S.-born Latino (all of Mexican origin), 40.8% Mexican immigrants, and 8.6% Central American immigrants.

Clinical Syndromes

Three hundred twenty patients (22%) met Escobar et al.'s^{4,6} criteria for abridged somatization, which was the most common syndrome observed in this primary care sample. Table 1 displays the percentage of somatizers versus nonsomatizers, as defined by the abridged construct, who also met lifetime criteria for the other diagnoses examined. Somatizing patients were significantly more likely to experience comorbid psychopathology than were nonsomatizing patients.

Of the sample, 33.5% met criteria for a lifetime diagnosis of one or more anxiety or depressive disorder. Patients who received a lifetime diagnosis of an anxiety or depressive disorder were about three times more likely to meet criteria for abridged somatization than were patients who had never had depression or an anxiety disorder (39.7% vs. 14.3%).

Severity of Functioning and Psychopathology

To study whether unexplained somatic symptoms were associated with more severe and disabling forms of depression and anxiety, we performed a number of analyses. We began by constructing two binary independent variables, one indicating the presence or absence of anxiety or depression and the other indicating the presence or absence

TABLE 1. Lifetime rates of psychopathology as determined by the CIDI		
DSM-III-R Diagnosis	Nonsomatizers $(n = 1, 135)$	Somatizers $(n = 320)$
Abridged somatization	0.0%	100%
Hypochondriasis	2.2%	15.0%
Major depressive disorder	13.7%	37.5%
Melancholia	3.1%	13.1%
Dysthymia	3.4%	7.5%
Generalized anxiety disorder	2.5%	10.0%
Panic disorder ^a	1.4%	7.5%
Simple phobia	11.9%	29.1%
Any anxiety/depression diagnosis	23.4%	54.7%
No anxiety/depression diagnosis	76.6%	45.3%
<i>Note:</i> CIDI = Composite International Diagnostic Interview ^a Panic Disorder with and without agoraphobia.		
tistically significant at $P < 0.001$ (Fisher's exact test).		

of abridged somatization. Next, a set of 2 X 2 analyses of variance (ANOVAs) were executed with these binary independent variables. The dependent variables used in the ANOVAs were severity of disability, as measured with the SF-36, and severity of depression and anxiety, as measured by the number of anxiety or depressive symptoms reported.

The ANOVA comparing the physical disability levels of the four patient groups described above revealed main effects for each diagnostic group. Specifically, somatizers reported more impairment in physical functioning than nonsomatizers (F = 55.71, df = 1,1,446, P < 0.0001) and patients diagnosed with either anxiety or depression reported more impaired physical functioning than patients diagnosed with neither anxiety nor depression (F = 18.76, df = 1,1,446, P < 0.0001). One planned comparison was made to examine our hypothesis; patients diagnosed with comorbid abridged somatization and at least one depressive or anxiety disorder reported significantly greater functional impairment than those diagnosed with only depressive or anxiety disorders (P < 0.003).

Next, a 2 X 2 ANOVA, parallel to the one described above, was conducted with severity of anxiety as the dependent variable. There were significant main effects: patients diagnosed with abridged somatization reported more anxiety symptoms than nonsomatizers (F = 105.89,df = 1, 1, 451, P < 0.0001) and those diagnosed with either depression or anxiety reported more anxiety symptoms than those diagnosed with neither depression nor anxiety (F = 112.45, df = 1.1.451, P < 0.0001). The interaction term was also significant (F = 22.90, df = 1,1,451,P < 0.0001) reflecting the compounding effect on anxious symptomatology of a diagnosis of abridged somatization comorbid with depression or anxiety (see Figure 1). The planned comparison, testing our hypothesis, indicated that patients diagnosed with coexisting abridged somatization along with at least one depressive or anxiety disorder were significantly more anxious than those diagnosed with only depression or anxiety (P < 0.0001).

The third ANOVA examined the severity of depression reported by somatizers and the consolidated group of depressed patients and anxious patients and indicated main effects for the diagnostic groups. That is, somatizers had higher depression scores than nonsomatizers (F = 181.90, df = 1,1,451, P < 0.0001), and patients diagnosed with at least one depression or anxiety disorder had higher depression scores than nondepressed, nonanxious patients (F = 1092.53, df = 1,1,451, P < 0.0001). Again, patients diagnosed with both abridged somatization and depression or anxiety reported more depressive symptomatology than

those diagnosed with only depression or anxiety (P < 0.002).

Finally, we sought to elucidate whether the results of the above ANOVAs reflected and were confounded by the disability and psychopathology experienced by patients with multiple diagnoses. The three ANOVAs were recomputed as analyses of covariance (ANCOVAs) controlling for the number of diagnoses given to each patient. In the first two ANCOVAs, the essential results were unchanged. That is, patients diagnosed with abridged somatization and at least one depressive or anxiety disorder were more disabled (P < 0.02) and anxious (P < 0.0001) than patients meeting criteria for only depression or anxiety disorders. In the third ANCOVA the covariate accounted for the difference in depression scores reported above. Thus, after controlling for multiple diagnoses, somatizing depressed or anxious patients were no more depressed than nonsomatizing depressed or anxious patients.

DISCUSSION

The results of our study confirm earlier reports that abridged somatization is widespread in primary care^{1.2} and is associated with high rates of disability, medical utilization, and psychiatric comorbity.^{4,9} In a previous related study, we distinguished between patients whose unexplained physical symptoms involve few organ systems, "simple somatizers," and those whose unexplained physical symptoms involve multiple organ systems, "polymorphous somatizers."⁷ Regardless of the total number of unexplained physical symptoms, polymorphous somatizers



appeared more disabled than simple somatizers.⁷ Our present study focuses on the relationship between abridged somatization and other forms of psychopathology. Abridged somatization was shown to co-occur frequently with depression and anxiety and to complicate the presentation of these disorders. When abridged somatization was comorbid with depression or anxiety, patients were more physically disabled and more anxious than patients with only a nonsomatoform diagnosis of depression or anxiety.

Our present study's findings are largely consistent with the only other study of the clinical significance of somatic symptoms associated with depression or anxiety disorders. Morrison and Herbstein¹⁶ found that female patients meeting criteria for both a major affective disorder and somatization disorder were more impaired than those with only a major affective disorder. Specifically, the comorbid group reported longer episodes of depression, more anxiety attacks, phobias, episodes of depression, and psychotic symptoms than those with only a major affective disorder. Our findings extend Morrison and Herbstein's work because these findings reveal the debilitating consequences of somatization for both men and women when somatization is defined by the abridged criteria.

The comparison of the results of Morrison and Herbstein¹⁶ and those of our present study warrants further attention. Morrison and Herbstein examined female psychiatric patients diagnosed with an affective disorder with and without comorbid full somatization disorder.¹⁶ In the present study, male and female, primary care, anxious and depressed patients with comorbid abridged somatization were more physically impaired and anxious, but not more depressed, than patients diagnosed with only an anxiety or depressive disorder. The inconsistencies between the two studies' findings may be related to differences in the clinical characteristics of the two samples (i.e., psychiatric patients diagnosed with a major affective disorder with or without full somatization disorder versus primary care patients diagnosed with a depression or an anxiety disorder with or without abridged somatization) and demographic characteristics (i.e., men vs. women).

If replicated in future studies, the results of the present study have important treatment implications for depressed and anxious patients. According to our data, somatizing depressed and somatizing anxious patients are more severely ill and functionally impaired than their nonsomatizing counterparts. These differences in clinical phenomenology may dictate different treatment interventions. For instance, aside from traditional antidepressant management, patients diagnosed with comorbid major depression and abridged somatization may require specific treatment strategies for their disabling somatic symptoms.

The research on treating psychiatric conditions coexisting with somatization is sparse. One controlled psychotherapy trial and no controlled medication trials for somatization disorder have been published.¹⁷ Therapeutic strategies for patients experiencing a more homogeneous set of unexplained physicals symptoms, such as a functional somatic syndrome, have begun to emerge. Psychotherapeutic interventions for irritable bowel syndrome and chronic fatigue syndrome have resulted in modest improvements in patients' physical symptoms, ^{18–21} as well as in their mood,¹⁹ functioning,^{18,20} and symptom-coping behaviors.²⁰ None of these studies specifically targeted patients diagnosed with psychopathology and somatic complaints. Furthermore, researchers focusing on depression and anxiety treatments, have largely overlooked the impact of treatment on concomitant somatoform symptoms. Our present study, by demonstrating the prevalence and detrimental effects of abridged somatization in depressed and anxious patients, identifies an important patient population for future intervention and research.

Our study's findings are limited by the study design. The assessment of disability was based on the SF-36, a self-report measure. Although the SF-36 is considered a highly reliable instrument and has been validated against behavioral measures,^{22,23} future research should examine other behavioral measures of disability, such as medical leave of absence or days in bed. Also, future studies should compare the health care utilization of somatizing depressed and somatizing anxious patients with that of nonsomatizing depressed and anxious patients. Finally, in future studies, the prognosis of patients diagnosed with comorbid abridged somatization and depression or anxiety should be evaluated with a longitudinal design.

Despite these limitations, our findings are noteworthy. As seen in a growing body of research, abridged somatization is prevalent and disabling. When psychiatric disorders co-occur with abridged somatization, they are associated with considerable emotional and physical impairment.

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