Symptoms of Depression in a Hispanic Primary Care Population With and Without Chronic Medical Illnesses

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Objective: To describe somatic and psychiatric symptoms reported by Hispanic primary care patients with and without depression and/or chronic medical illnesses.

Method: Adult Hispanic patients (n = 104) in a Mobile Health Program in underserved southern Arizona participated in a survey conducted between September 2006 and February 2007 to obtain information about the somatic and psychiatric symptoms that they were experiencing. They were asked to rate the severity of their symptoms listed in the depression screen Personal Health Questionnaire-9 (PHQ-9), the Symptom Checklist-90-Revised (SCL-90-R), and 5 new symptoms described by patients in focus groups conducted in the first phase of the project. Patients were categorized as depressed if their PHQ-9 scores were 10 or above, and they were further categorized as having or not having chronic illnesses based on self-report. Analyses of variance were conducted for each SCL-90-R symptom dimension to compare across the 4 groups (group 1: not depressed and not medically ill; group 2: medically ill but not depressed; group 3: depressed but not medically ill; and group 4: depressed and medically ill).

Results: Patients with chronic medical illnesses comorbid with depression were found to report significantly more somatic symptoms than those with only chronic medical illnesses or depression alone ($P \leq .001$). They also reported significantly more psychopathology than patients with depression alone ($P \leq .05$ or better).

Conclusions: Patients with medical illnesses comorbid with depression are more likely to exhibit psychopathology than patients with medical illnesses or depression alone.

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The relationship between physical illness and mental health has been well established in the epidemiologic literature.[1–4] Chronic diseases and unfavorable health conditions increase the risk of depression, particularly in women and ethnic minorities.[5–10] Similarly, depressive disorders can trigger, facilitate, and exacerbate a host of general medical conditions, often resulting in worse outcomes when compared to those of nondepressed subjects.[11,12]

Hispanics in general have lower utilization rates of both mental and general health services than non-Hispanics,[13,14] although they are more likely to present for the latter.[15,16] The Study of Women's Health Across the Nation, which is a large multisite longitudinal, epidemiologic study designed to examine the physical, biologic, psychological, and social aspects of women's health during their middle years, found that Hispanic and African American women were most likely to have elevated depressive symptoms compared to women from other ethnicities.[17] While these 2 minority groups are less likely to have their depression identified,[18] ironically, they are most likely to have long-lasting benefits if they do access services.[19]

Somatization, as defined by Lipscomb and Katon,[20] is the expression of psychological and/or social distress in a somatic idiom. It is found to be more common among females and ethnic minorities.[21–23] Patients with depression and dysthymia have disproportionately high numbers of somatic symptoms, in particular, among Hispanic women less than 40 years of age.[24] Within the primary care environment, vague or unexplained somatic symptoms such as aches and pains are often presenting symptoms of depression.[25] However, for patients with medical illnesses and depression, somatic symptoms may be generated in a complex mixture of psychological distress and manifestations of the medical disease process, pain, and side effects of drugs used to relieve medical conditions.[26] The overlap in somatic symptoms for depression and medical illness renders the detection of depression more difficult among patients with chronic illness and depression.

Previous studies have shown that co-occurring physical and mental health problems result in less patient self-care and medical adherence[27,28]; substantially decrease quality of life[29,30]; have greater functional impairment[31]; increase the risk of co-occurring medical disorders, such as coronary heart disease[32]; and increase medical care costs substantially.[33] Subsequent morbidity and mortality appear to be reduced with depression treatment.[34]

In this article, we explored the association between psychiatric symptom expression and general medical conditions among depressed and

Clinical Points

- Depression among patients with chronic medical illnesses is not always detected.
- Symptoms of psychopathology may indicate depression among patients with chronic medical illnesses.
- Medical providers should not focus only on the patients' somatic complaints but be sensitive to the patients' nonmedical complaints.

nondepressed individuals in a predominantly Hispanic community sample from southern Arizona.

METHOD

Participants

Adult patients of the Mobile Health Program of the University of Arizona were recruited at Mobile Health Program sites in southern Arizona. Mobile Health Program services include prevention services such as wellness checks and immunizations in addition to medical assessment and treatment. All adults (age 18 years or older) willing and able to provide consent were eligible to be recruited except for those who had previously participated in a preliminary focus group related to the experience and expression of depression during the developing phase of the current study. An anticipated 100 participants were to be recruited. For the purposes of this article, only Hispanic patients will be described. Table 1 shows the demographic information of participants.

Procedure

The University of Arizona's Human Subjects Committee reviewed and approved the study protocols and certified all study personnel prior to the implementation of research activities. All participants who were approached and recruited underwent informed consent and signed consenting documents before participating. Subject participation consisted of completing a 140-item questionnaire given during the patient's clinic visit. Patients were reimbursed with $5 upon returning the completed survey to the research assistant. Both research assistants for the study were bilingual and were available if participants needed assistance in filling out the questionnaires.

Survey Measures

Since the majority of Mobile Health Program patients are Hispanics, many of whom are monolingual Spanish speakers, the consent forms and the form containing questions on demographic characteristics and medical illnesses were translated into Spanish and reviewed by Spanish speakers before the surveys began. The Personal Health Questionnaire-9 (PHQ-9) and Symptom Checklist-90-Revised (SCL-90-R) were already available in Spanish. Reviewers were asked to assess all instructions and questionnaires for ease of comprehension and grammatical correctness. Participants were given either the English or Spanish set of documents depending on their preference.

Demographic Characteristics and Medical Illnesses

Eleven items addressed sociodemographic characteristics (see Table 1). Those who identified themselves as Hispanic were asked to indicate whether they were Mexican, Mexican American/Chicano, or other Hispanic. Wording for the chronic disease questions was based on that used in the Behavioral Risk Factor Surveillance Surveys[35] conducted by the Centers for Disease Control and Prevention.

Personal Health Questionnaire-9

The PHQ-9 contains 10 items and uses criteria for depression described in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (*DSM-IV*) to ask about symptoms present in the past 2 weeks.[36] Respondents rate the frequency of 9 depression symptoms with 0 ("not at all") to 3 ("nearly every day"), and a tenth item rates severity of functional impairment. It is a reliable and valid measure of depression severity, with 88% sensitivity for detecting syndromic major depressive disorder (MDD) compared to a diagnostic interview by a mental health professional.[37]

The Spanish PHQ-9 was also found to be a valid measure of MDD among different Hispanic samples. Compared to the Structured Clinical Interview for *DSM-IV* (SCID) mood disorders module, the instrument had a sensitivity of 77% for MDD with 199 low-income illiterate Honduran women as subjects.[38] The instrument showed 87% sensitivity and 88% specificity compared with the diagnostic determination of a mental health professional when tested with a population of inpatients in a general hospital in Spain.[39] Patients can be scored as having absent to minimal symptoms (0–4), mild depression (5–9), moderate depression (10–14), moderately severe depression (15–19), or severe depression (20–27).

Symptom Checklist-90-Revised

The SCL-90-R allows the scoring of 9 symptom dimensions—somatization, obsessive-compulsive

Table 1. Characteristics of Hispanic Survey Respondents

Characteristic[a]	Group 0 (no depression or medical illness), n = 48	Group 1 (medical illness only), n = 40	Group 2 (depression only), n = 5	Group 3 (depression and medical illness), n = 11	Total, n = 104
Age, mean (SD), y**	33.8 (14.2)	51.4 (14.1)	35.8 (8.7)	48.3 (9.3)	42.2 (15.8)
Men	19	35	20	27	26
Women	81	65	80	73	74
Has a partner (married or living together)*	67	65	60	27	62
Education (completed high school or GED)	60	40	60	64	52
Employed	35	45	60	18	38
Income < $15,000 per y	56	83	50	90	70
General health status (fair or poor)**	8	63	20	55	35
Angina	0	4	0	9	3
Arthritis	0	21	0	45	14
Asthma	0	6	0	36	7
Cancer	0	4	0	9	3
Diabetes	0	69	0	82	40
Heart attack	0	4	0	0	2
Lung disease	0	2	0	18	3
Permanent disability	0	8	0	27	7
Seizure	0	2	0	0	1
Stroke	0	2	0	27	4
One medical condition	0	63	0	27	27
Two medical conditions	0	28	0	27	13
Three medical conditions	0	10	0	18	6
More than 3 medical conditions	0	0	0	27	3
PHQ-9 scores					
0–4 (absent to minimal depression)	62	47	0	0	46
5–9 (mild depression)	38	53	0	0	38
10–14 (moderate depression)	0	0	80	55	10
15–19 (moderately severe depression)	0	0	20	27	4
20–27 (severe depression)	0	0	0	18	2
No. of PHQ symptoms, mean (SD)**	3.29 (2.89)	4.45 (2.76)	11.80 (3.49)	15.18 (5.40)	7.14 (4.83)

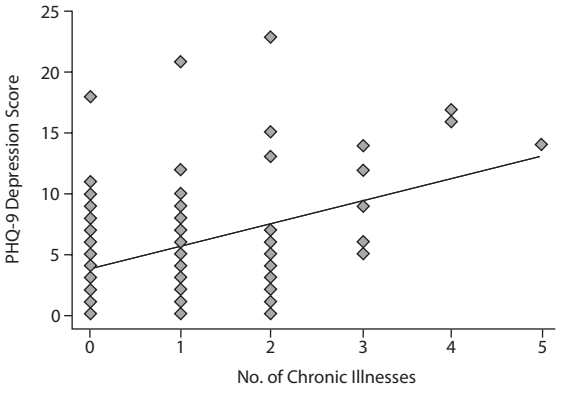
[a]Values are shown as percentages unless stated otherwise.
*$P < .05$, **$P < .01$.
Abbreviations: GED = General Education Development, PHQ-9 = Personal Health Questionnaire-9.

disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism.[40] Respondents are asked to rate how much discomfort each symptom has caused them in the past 2 weeks, from 0 ("not at all") to 4 ("extremely"). The SCL-90-R was tested on Hispanic college students, and no differences in response patterns were found with their non-Hispanic counterparts.[41]

The PHQ-9 and the SCL-90-R scores were calculated using the scoring algorithms provided. Individuals responding yes to having been diagnosed by a medical provider with at least 1 of the listed medical problems were coded as having a medical illness. The PHQ-9 scores were used to determine whether depression was present. Individuals scoring 10 or higher (indicative of at least moderate depression) were categorically considered to have depression.

Patients were divided into 4 groups using a 2 × 2 matrix of medical illness (yes/no) and depression (yes/no). Group 0 (n = 48) had neither depression nor medical illness, group 1 (n = 40) had medical illness only, group 2 (n = 5) had depression only, and group 3 (n = 11) had depression and medical illness. Separate 1-way analyses of variance were conducted, comparing the ratings of the 9 symptom dimensions obtained from the SCL-90-R for each of the 4 groups of patients. The SCL-90-R depression variable was included because the depression symptoms on the SCL-90-R differed from the depression symptoms on the PHQ-9. To address the significant heterogeneity of variances found across these groups for all except the somatization syndrome, we used the weighted least-squares estimation method, and all pairwise

Figure 1. Relationship Between the Number of Chronic Illnesses and Depression



Abbreviation: PHQ-9 = Personal Health Questionnaire-9.

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Table 2. Mean Differences and Paired Comparisons Between Groups[a] for Each SCL-90-R Dimension

Dimension	F^b	P	Group 0 vs Group 3	Standard Error	Group 1 vs Group 3, Medical Illness Constant	Standard Error	Group 2 vs Group 3, Depression Constant	Standard Error
Somatization	21.80	<.001	1.44**	0.19	1.15**	0.20	1.26**	0.26
Obsessive compulsive	20.11	<.001	1.45**	0.32	1.42**	0.32	1.34*	0.39
Interpersonal sensitivity	24.94	<.001	1.55**	0.34	1.56**	0.34	1.52*	0.42
Depression	20.73	<.001	1.62**	0.30	1.60**	0.30	1.14	0.48
Anxiety	24.13	<.001	1.31*	0.31	1.28*	0.31	1.00	0.36
Hostility	12.09	<.001	1.08*	0.28	1.09*	0.29	0.94	0.34
Psychoticism	18.45	<.001	1.11*	0.35	1.16*	0.34	0.81	0.40
Phobic anxiety	8.52	<.001	0.82	0.31	0.77	0.32	0.64	0.39
Paranoid ideation	13.57	<.001	0.28	0.35	0.36	0.35	−1.04	0.53

[a]Group 0: no depression, no chronic medical illness (n = 48); group 1: chronic medical illness only (n = 40); group 2: depression only (n = 5); and group 3: depression with chronic medical illness (n = 11).
[b]$df = 3,100$.
*$P \leq .05$; **$P \leq .001$.
Abbreviation: SCL-90-R = Symptom Checklist-90-Revised.

comparisons were conducted using the Games-Howell tests. Post hoc pairwise comparisons were made between groups 1 and 3 (keeping medical illness constant), and between groups 2 and 3 (keeping depression constant). Data entry was checked for accuracy using 50% of the survey data. A 99% concordance rate was observed.

RESULTS

The surveys were conducted between September 2006 and February 2007. Of 126 individuals who participated in the survey, 104 were Hispanic patients (27 men, 77 women), with a mean age of 42.2 years (SD = 15.8). The majority of the Hispanic patients (96%) reported themselves to be of Mexican origin. Forty participants (38.5%) completed the English survey, while the majority (61.5%) completed the Spanish survey. Approximately one-half of the Hispanic patients (51 individuals) reported having at least 1 medical illness. Survey respondent demographics and characteristics are shown in Table 1, which describes patients with and without chronic medical illnesses.

Slightly over half of the participants (54%) endorsed at least mild depressive symptoms, with 16% reporting a severity that suggests major depression. The majority of participants were women, with an average age of 42 years. Individuals with 1 or more medical illnesses had a significantly higher mean age, were less likely to have a partner, and rated their general health less favorably compared to those without medical illnesses. Male participants were significantly more likely to have 1 or more medical illnesses compared to female patients (data not shown; $t_{1,102} = 2.85$, $P < .01$). Diabetes was the most common chronic disease reported in this sample, followed by arthritis. The more chronic illnesses a person has, the more likely that he/she will be depressed ($\chi^2 = 13.2$, $P < .05$). All 3 patients with more than 3 medical illnesses were found to be depressed. Figure 1 shows a scatter plot of the distribution of the PHQ-9 scores among patients with different numbers of chronic illnesses. A linear regression analysis shows that the impact of the number of chronic illnesses on depression score is small but significant (adjusted $R^2 = 0.169$, $P \leq .05$). The small number of patients with a large number of chronic illnesses mitigates further investigation into the relationship between the 2 variables.

One-way analyses of variance and multiple comparisons were conducted for each of the SCL-90-R symptom dimensions. The between-subjects factor comprises the 4 mutually exclusive groups from the 2×2 matrix of chronic illness and depression. Significant differences were found for all symptom dimensions showing overall differences across the 4 groups (Table 2); however, paired comparisons between groups 0, 1, and 2 with group 3 showed no significant differences for paranoid ideation and phobic anxiety. Comparisons of individual symptoms are shown in Appendix 1.

Differences emerged when groups 0, 1, and 2 were compared with group 3 (Table 2) but not when group 0 was compared with group 1 or group 2 (data not shown). Compared to patients who only have medical illnesses, those with comorbid depression reported increased numbers and types of symptoms (group 1 vs group 3). These patients were more likely to score high on somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, and psychoticism. However, with depression kept constant, patients with comorbid medical illness reported far fewer symptoms, most of which were somatic/physical symptoms. This group was significantly more likely to score high on somatization, obsessive-compulsive disorders, and interpersonal sensitivity.

The impact of acculturation was assessed using the survey language of choice. Those who used the English questionnaires showed a significantly higher PHQ-9 score than those who used the Spanish

questionnaires ($F_{1,104} = 4.67$, $P < .05$). However, 42.5% of the English speakers as opposed to the 53.2% of the Spanish speakers reported having at least 1 chronic illness. Significant interactions were observed between survey language (English, Spanish) and patient group (1–4) for somatization ($F_{3,96} = 3.47$, $P < .05$) and phobic anxiety ($F_{3,96} = 4.51$, $P < .05$). However, since groups 2 and 3 in the Spanish-speaking group and group 3 in the English-speaking group had fewer than 5 individuals in them, no further analyses were conducted.

DISCUSSION

Data from the World Health Surveys from 60 countries suggest that people with comorbid depression and chronic medical illness have the worst health compared to other disease states.[42] Depression increases medical costs[43–45] and negatively impacts general medical treatment outcomes.[46] Most importantly, the said outcomes improve if the patient's depressive symptoms are addressed.[47]

Emotional and psychological symptoms are evident in a large array of chronic medical conditions.[48] They characteristically include feelings of helplessness, hopelessness, inability to cope, and diminished self-esteem[49]; pessimism, anxiety, and self-pity[50]; and significantly high paranoid ideation, interpersonal sensitivity, hostility, and psychoticism.[51] In addition to confirming these findings, our study suggests that for patients with chronic illnesses, those with comorbid depression show a high level of psychopathology as manifested by a greater number of psychological complaints. For example, the severity of depression was the same, regardless of whether the depressed patients did not or did have medical illness (group 2 and group 3 patients, respectively), a finding similar to that of Gaynes et al,[52] who showed that depressed psychiatric patients and depressed primary care patients share identical distributions of depression severity scores. Somatically, however, group 3 patients were significantly more likely to have more severe complaints of shortness of breath, to experience hot or cold spells, and to have heavy feelings in their arms. This result is consistent with that reported by Yates et al[53] that patients with depression and comorbid medical conditions endorsed more somatic complaints. This symptom presentation further supports the assertion that detection of depression in this group is difficult because the somatic symptoms may be attributed solely to medical illness. It should be noted, however, that depressed patients with comorbid medical conditions were more likely to have more medical illnesses than those with medical conditions but not depression.

These results also suggest that somatic complaints have poor discriminatory power to identify depression among patients with chronic illness. In contrast, an increased number of psychiatric complaints may be suggestive of depression. While the number of symptoms provides a good indication of depression, particular symptoms may not. The psychiatric symptoms experienced by depressed medically ill patients differ across studies.[54] This discrepancy should not be surprising because depression is manifested in many different ways.[55]

Differences in the kinds of symptoms experienced may also be due to group characteristics such as those associated with a specific culture.[23,56] Our study described symptoms experienced only by Hispanic patients from rural Arizona communities. These differences may also be affected by the language used in the survey. For example, the severity of symptoms was found to be highest if the patient was assessed in bilingual Spanish/English, followed by Spanish and English, respectively.[57] In our study, patients were asked to rate their symptoms in either English or Spanish, depending on their preference. In contrast with previous research, our results suggest that those who took the English survey endorsed more depression symptoms than those who completed the Spanish survey. However, the small numbers of subjects in the different groups require other research to confirm and show how language and/or acculturation impact the recognition and perception of symptoms.

Frequently, medical providers focus only on the patient's somatic complaints and lend less attention to nonphysical issues.[58] Similarly, patients with somatizing tendencies are more likely to be perceived by the provider as difficult.[59] Helping the provider to reorient, to interpret such tendencies, and to be sensitive to the broad psychological unease that chronically ill patients report may improve the detection of depression and improve treatment outcome. Patient education is also important. By educating patients about depression and how depression is treated, the communication between patient and provider will improve, increasing the chances of identification.[60,61]

This study is unique because it categorized individuals into mutually exclusive groups, whereas other studies have categorized groups depending on where they were recruited (community respondents, psychiatric patients, or primary care patients). Thus, in spite of our limited sample size, the use of a screening tool to determine the status of depression and other psychiatric problems, and the lack of assessment of medical severity, the findings are robust and consistent with studies obtained with other methodologies. This study adds to the extant knowledge regarding the impact that depression has on the expression of psychiatric symptoms, in addition to the role that culture and/or acculturation may have on the expression of those symptoms.

In conclusion, while somatic symptoms are typically present in medically ill patients with depression, their mere presence lacks discriminatory power for detecting depression. Alternatively, the number of

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psychiatric symptoms reported by patients may be suggestive of depression. It is therefore important for clinicians to look beyond somatic symptoms and be sensitive to the patients' nonmedical complaints.

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Appendix 1 appears on page e8.

Appendix 1. Mean Differences and Paired Comparisons Between Groups[a] for Each SCL-90-R Symptom and Dimension

Dimension/Symptom	F^b	P	Group 0 vs Group 3	Standard Error	Group 1 vs Group 3, Medical Illness Constant	Standard Error	Group 2 vs Group 3, Depression Constant	Standard Error
Somatization	86.97	<.001	1.44**	0.19	1.15**	0.20	1.26**	0.26
Headaches			0.73	0.34	0.68	0.34	0.73	0.70
Faintness or dizziness			2.09**	0.41	1.97**	0.42	2.07**	0.45
Pains in heart or chest			0.69	0.40	0.68	0.40	0.80	0.43
Pains in lower back			0.97	0.50	0.91	0.50	−0.02	0.87
Nausea or upset stomach			0.52	0.38	0.41	0.40	−0.02	0.87
Soreness of your muscles			1.75**	0.41	1.00	0.45	1.35	0.83
Trouble getting your breath			1.00	0.42	1.05	0.41	1.27*	0.41
Hot or cold spells			1.61*	0.51	1.24	0.53	1.62*	0.54
Numbness or tingling in parts of your body			2.39**	0.34	1.39**	0.40	2.04**	0.52
A lump in your throat			1.48	0.53	1.37	0.53	1.22	0.57
Feeling weak in parts of your body			2.18**	0.27	1.66**	0.31	2.04**	0.47
Heavy feelings in your arms			1.87**	0.49	1.41	0.51	1.98**	0.52
Obsessive compulsive	41.62	<.001	1.45**	0.32	1.42**	0.32	1.34*	0.39
Repeated unpleasant thoughts that won't leave your mind			1.49	0.51	1.58*	0.51	0.71	0.76
Trouble remembering things			1.71**	0.46	1.55*	0.47	1.95*	0.59
Worried about sloppiness or carelessness			1.64**	0.37	1.60**	0.39	2.05**	0.53
Feeling blocked in getting things done			1.95**	0.45	1.98**	0.45	1.45	0.62
Having to do things very slowly to insure correctness			0.64	0.48	0.36	0.50	−0.02	0.87
Having to check and double-check what you do			1.93**	0.43	1.90**	0.44	1.65	0.64
Difficulty making decisions			1.42	0.57	1.52	0.57	1.49	0.68
Your mind going blank			1.25*	0.42	1.28*	0.42	1.13	0.57
Trouble concentrating			1.42*	0.44	1.39*	0.44	1.69*	0.48
Having to repeat the same actions such as touching, counting, washing			1.02	0.44	1.07	0.43	1.27	0.43
Interpersonal sensitivity	48.3	<.001	1.55**	0.34	1.56**	0.34	1.52*	0.42
Feeling critical of others			2.24**	0.37	1.94**	0.39	1.96**	0.44
Feeling shy or uneasy with the opposite sex			1.03	0.50	1.14	0.50	1.36	0.49
Your feelings being easily hurt			1.74**	0.47	1.81**	0.46	2.44**	0.48
Feeling others do not understand you or are unsympathetic			1.89*	0.53	2.15**	0.52	1.45	0.93
Feeling that people are unfriendly or dislike you			1.15	0.57	1.54	0.56	1.82*	0.55
Feeling inferior to others			1.52	0.50	1.43	0.51	0.93	0.94
Feeling uneasy when people are watching or talking about you			1.98**	0.51	1.97**	0.52	1.67	0.78
Feeling very self-conscious with others			1.06	0.45	0.88	0.46	0.65	0.57
Feeling uncomfortable about eating or drinking in public.			1.34	0.51	1.19	0.52	1.36	0.51
Depression	46.84	<.001	1.62**	0.30	1.60**	0.30	1.14	0.48
Loss of sexual interest or pleasure			1.99**	0.54	1.93*	0.56	1.51	0.72
Feeling low in energy or slowed down			2.20**	0.28	1.82**	0.31	1.89	0.78
Thoughts of ending your life			0.46	0.29	0.47	0.29	0.55	0.28
Crying easily			1.22	0.53	1.13	0.55	1.58	0.64
Feeling of being trapped or caught			1.24	0.46	1.16	0.47	0.16	0.86
Blaming yourself for things			1.70*	0.48	1.71*	0.48	0.58	0.82
Feeling lonely			1.37	0.53	1.51	0.53	0.58	0.84
Feeling blue			1.78**	0.44	1.76**	0.45	1.04	0.79
Worrying too much about things			1.98**	0.35	1.92**	0.37	0.87	0.74
Feeling no interest in things			1.80**	0.46	1.86**	0.46	1.56	0.65
Feeling hopeless about the future			1.75**	0.45	1.92**	0.45	1.47	0.72
Feeling everything is an effort			1.75**	0.34	1.80**	0.34	2.00**	0.33
Feelings of worthlessness			1.85**	0.41	1.78**	0.42	1.00	0.68
Anxiety	53.58	<.001	1.31*	0.31	1.28*	0.31	1.00	0.36
Nervousness or shakiness			1.62*	0.45	1.36*	0.45	0.91	0.70
Trembling			1.36*	0.43	1.09	0.45	−0.04	0.97
Suddenly scared for no reason			1.00	0.37	1.15*	0.36	1.27*	0.36
Feeling fearful			1.14	0.49	1.33	0.48	1.25	0.51
Heart pounding or racing			0.65	0.44	0.53	0.45	0.60	0.49
Feeling tense or keyed up			1.94**	0.36	1.82**	0.38	1.35	0.81
Spells of terror or panic			1.19	0.49	1.22	0.49	1.27	0.49
Feeling so restless you couldn't sit still			1.35	0.50	1.35	0.52	1.33	0.55
The feeling that something bad is going to happen to you			1.48*	0.41	1.57**	0.41	0.62	0.71
Thoughts and images of a frightening nature			1.33	0.46	1.40*	0.46	1.45*	0.45

(continued)

Appendix 1 (continued). Mean Differences and Paired Comparisons Between Groups[a] for Each SCL-90-R Symptom and Dimension

Dimension/Symptom	F^b	P	Group 0 vs Group 3	Standard Error	Group 1 vs Group 3, Medical Illness Constant	Standard Error	Group 2 vs Group 3, Depression Constant	Standard Error
Hostility	24.83	<.001	1.08*	0.28	1.09*	0.29	0.94	0.34
Feeling easily annoyed or irritated			1.87**	0.29	2.01**	0.32	1.71	0.63
Temper outburst that you could not control			1.48	0.52	1.40	0.53	0.80	0.89
Having urges to beat, injure, or harm someone			0.74	0.42	0.76	0.42	0.51	0.58
Having urges to break or smash things			0.67	0.36	0.69	0.36	0.82	0.35
Getting into frequent arguments			0.92	0.46	0.87	0.47	0.87	0.51
Shouting or throwing things			0.80	0.44	0.78	0.44	0.91	0.44
Phobic anxiety	20.13	<.001	0.82	0.31	0.77	0.32	0.64	0.39
Feeling afraid in open spaces or on the streets			0.41	0.33	0.46	0.32	0.64	0.31
Feeling afraid to go out of your house alone			0.75	0.44	0.78	0.44	0.20	0.91
Feeling afraid to travel on buses, subways, or trains			0.74	0.45	0.56	0.46	0.91	0.44
Having to avoid certain things, places, or activities because they frighten you			0.67	0.27	0.54	0.28	0.42	0.48
Feeling uneasy in crowds, such as shopping or at a movie			1.04	0.48	0.87	0.48	1.27	0.47
Feeling nervous when you are left alone			1.37	0.56	1.39	0.55	0.84	0.66
Feeling afraid you will faint in public			0.78	0.44	0.77	0.44	0.22	0.75
Paranoid ideation	26.19	<.001	0.28	0.35	0.36	0.35	−1.04	0.53
Feeling others are to blame for most for your troubles			0.86	0.43	0.97	0.42	0.49	0.73
Feeling that most people cannot be trusted			1.17	0.43	1.14	0.43	0.42	0.85
Feeling that you are watched or talked about by others			1.61	0.56	1.74	0.56	2.09	0.55
Having ideas or beliefs that others do not share			1.34	0.50	1.39	0.50	1.64	0.49
Others not giving you proper credit for your achievements			1.44	0.56	1.48	0.56	0.60	0.81
Feeling that people will take advantage of you if you let them			1.48	0.52	1.68	0.52	1.00	0.74
Psychoticism	37.23	<.001	1.11*	0.35	1.16*	0.34	0.81	0.40
The idea that someone else can control your thoughts			0.54	0.37	0.70	0.36	0.73	0.36
Hearing voices that other people do not hear			0.45	0.28	0.45	0.28	0.45	0.28
Other people being aware of your private thoughts			0.78	0.47	0.87	0.46	0.09	0.90
Having thoughts that are not your own			0.86	0.52	0.97	0.52	1.09	0.51
Feeling lonely even when you are with people			1.48	0.46	1.39*	0.47	0.82	0.77
Having thoughts about sex that bother you a lot			1.12	0.63	1.30	0.62	0.85	0.85
The idea that you should be punished for your sins			0.90	0.52	0.99	0.52	0.49	0.65
The idea that something serious is wrong with your body			1.55*	0.51	1.51*	0.51	1.31	0.78
Never feeling close to another person			2.00**	0.45	2.12**	0.44	1.67	0.59
The idea that something is wrong with your mind			1.25	0.52	1.45	0.51	1.35	0.55

[a]Group 0: no depression, no chronic medical illness; group 1: chronic medical illness only (n = 40); group 2: depression only (n = 5); and group 3: depression with chronic medical illness (n = 11).
[b]$df = 3,100$.
*$P \leq .05$; **$P \leq .001$.
Abbreviation: SCL-90-R = Symptom Checklist-90-Revised.