

Screening for Depression Among Newly Arrived Vietnamese Refugees in Primary Care Settings

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A brief, culture-specific, self-report screening measure for depression, the Vietnamese Depression Scale, was used to determine the prevalence of depressive symptoms among 1,998 consecutive adult Vietnamese refugees who presented at 10 public health clinics within 2 months of their arrival in the United States. Of these patients, 6% met the criterion for a probable case of depression ("positive"). Being divorced, separated, or widowed and poorly educated were strongly associated with a greater likelihood of screening positive. Somatic complaints were common and induced considerable anxiety about physical health status. Nearly a third of the patients reported sadness and dysphoria; culture-specific symptoms of depression also were prevalent. Our findings document the feasibility of screening for depression using the Vietnamese Depression Scale among Vietnamese refugees, particularly in primary care settings where they are first likely to be seen by health professionals after arrival in their host country.

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A great deal of interest has been shown recently in the detection and management of depression in primary care settings.^{1,4} An estimated 54% of persons suffering from psychiatric disorders are seen only in the primary care or general medical sector.⁵ Among patients with affective disorders, the Epidemiologic Catchment Area study showed that as many as 15% had sought help only in the general health care sector, with a similar number seeking help from mental health specialists.⁶ Other reports indicate that almost half of all office visits to physicians in private practice that resulted in a primary or secondary diagnosis of a psychiatric disorder were to a nonpsychiatrist; 28% of these were for depression.⁷

Similar circumstances may be found among the more than 1 million Southeast Asian refugees who live in the United States (R. Johnson, International Rescue Committee, oral communication, June 1994). Specialized mental health services are in short supply, and it has long been recognized that the cultural stigma attached to mental illness in this population encourages seeking help in primary care settings.⁸ Because most refugees are seen in public health clinics on entry into the United States and psychological distress may be

greatest within the first year of arrival,^{9,11} early screening for depression seems both feasible and warranted.

In this article we describe the use of a previously developed, culture-specific depression scale to examine the nature and extent of this phenomenon among adult Vietnamese refugees seen in primary health care clinics in four states within two months of their immigrating to the United States.

Patients and Methods

Patients

The patients were all ethnic Vietnamese refugees 16 years of age or older who had arrived in the United States in the previous two months and were seen at one of ten study sites. All patients completed the Vietnamese Depression Scale (VDS).¹²

Vietnamese Depression Scale

The VDS is an 18-item, culture-specific self-report instrument that can be completed in five minutes by any Vietnamese person with at least four years of formal education. It is administered orally by an interpreter to persons with less or no formal education. The VDS was

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developed using key informants and a known case-noncase-matched control design.¹² Because the presentation and symptoms of depression may be different across cultures and can be obscured by the use of measures developed for other populations, the VDS contains six culture-specific items associated with depression among the Vietnamese, as well as six questions each about physical and psychological symptoms. The derivation and meaning of these culture-specific symptoms have been previously described in detail.¹² In our initial work, a cutoff of 13 points on the VDS identified 91% of depressed patients and 96% of a community control sample.¹² Subsequently, its sensitivity has been validated in a primary care study that found that 89% of patients identified as depressed by the VDS were confirmed to have major depression on a psychiatric evaluation using a modified structured interview.¹³ Other work among newly arrived Vietnamese refugees showed a sensitivity of 64%, a specificity of 98%, and positive and negative predictive values of 75% and 97%, respectively, using a semistructured interview administered by a native Vietnamese-speaking psychiatrist as the standard.¹⁴

Study Sites

A pilot project at the Multnomah County Refugee Health Clinic in Portland, Oregon, was prompted by inappropriate referrals to the Oregon Health Sciences University Indochinese Psychiatric Clinic and difficulties experienced by community health nurses in assessing the mental health of refugee clients. Six months after its initiation, the Centers for Disease Control and Prevention (Atlanta, Georgia) supported the extension of the pilot project to nine additional sites. The ten refugee health clinics that participated in this study included four in Washington (Seattle, Olympia, Spokane, and Yakima), three in Oregon (Portland, Salem, and Hillsboro), two in California (San Jose and San Diego), and one in Hawaii (Honolulu). At least one Vietnamese ancillary health professional was employed at each site.

Methods

Two of us (S.M.M. and N.G.D.) traveled to each clinic to conduct half-day orientation and training sessions. These sessions reviewed scale development, the protocol for administering and scoring the scale, pilot study findings, intake logistics, referral procedures, and forwarding of the data for statistical analysis. An audiotape in the native language developed by a Vietnamese colleague explained these same matters and described the nuances of each scale item at greater length. Oregon Health Sciences University staff were available for telephone consultation. Quarterly statistical reports were generated for individual clinics as well as the aggregate.

After staff orientation and training, the VDS was incorporated into the clinic intake procedure, which also elicited information on sociodemographic background, medical history, and reason(s) for the visit. Community health nurses reviewed this information, scored the VDS, and called the results to the attention of the treat-

ing physician, who determined the need and appropriateness of a referral for mental health services.

The length of clinic involvement ranged from 14 to 18 months. Although several factors affected the duration of involvement in the screening project, the primary one was a loss of program funds with corresponding staff reductions. The comprehensiveness of the screening effort was checked at least once at each site by comparing the number of scales administered during a randomly selected month to the clinic's report of the number of adult Vietnamese refugee patients seen during the same month. No clinic evidenced less than 96% completeness in VDS screening.

Statistical Analyses

Percentages were compared using the χ^2 statistic. Student's *t* tests were used to detect differences in continuous variables. In the univariate and multivariate logistic regression analyses, screening positive for depression—that is, a score of ≥ 13 —was used as the dependent variable and demographic factors as independent variables. Internal consistency was examined using Cronbach's α coefficients; because the scale is not the same for each item in the VDS, an adjusted α also was calculated. α Coefficients were determined for the entire sample, as well as for subgroups identified by gender and educational level. Because multiple tests were done, only those with *P* values of .01 or less were considered statistically significant.

Results

During the study period, 1,998 adult Vietnamese refugee patients were screened within two months of their arriving in the United States. Four of the ten clinics contributed 90% of these persons. This disparity in enrollment reflected differences in the relative size of the refugee populations residing in the catchment areas. The average VDS score for all patients was 3.19 (standard deviation ± 4.75); 115 (6%) scored at or above the threshold criterion of 13. As shown in Table 1, the average age of the patients was 31 years (range, 16 to 85), 59% were male, and more than half of the patients were single. Two thirds had received some secondary level education, but almost a quarter had six years or less of formal schooling.

Table 1 also shows important variations in scale scores by patient characteristics. Significantly more women than men met the threshold criterion (7% versus 5%; *P* < .005). Likewise, the number of persons who met the criterion was disproportionate among older patients, particularly those older than 40 years (*P* < .005). Univariate analyses confirmed that persons scoring at or above the threshold were significantly older than those who score below (mean age, 33.9 versus 30.4 years; *P* < .001). Persons with scores of 13 or higher also distributed unequally across the single (4%), married (5%), and other (17%) categories (which included people who were divorced, separated, or widowed), with far more than expected among the last group (*P* < .001). In

TABLE 1.—Patient Characteristics and Scores on Vietnamese Depression Scale (VDS) (n = 1,998)

Patient Characteristics	VDS Score		Total No. (% row)
	<13, n = 1,883 No. (% row) [% column]	≥13, n = 115 No. (% row) [% column]	
Mean age, yr*	30.4	33.9†	31
Age, yr*			
<21.....	365 (20) [96]	16 (14) [4]	381 (19)
21-30.....	754 (41) [96]	35 (31) [4]	789 (40)
31-40.....	415 (22) [95]	24 (21) [5]	439 (22)
41-50.....	213 (11) [89]	26 (23) [11]‡	239 (12)
51-60.....	80 (4) [90]	9 (8) [10]	89 (5)
≥61.....	34 (2) [92]	3 (3) [8]	37 (2)
Sex*			
Male.....	1,131 (60) [95]	55 (48) [5]	1,186 (59)
Female....	746 (40) [93]	60 (52) [7]§	806 (41)
Marital status*			
Single.....	935 (54) [96]	42 (43) [4]	977 (53)
Married...	738 (42) [95]	42 (43) [5]	780 (43)
Other.....	67 (4) [83]	14 (14) [17]‡	81 (4)
Education*			
Mean years	9.6	8.4§	9.5
Highest grade			
None.....	19 (1) [79]	5 (5) [21]‡	24 (1)
1-4.....	92 (5) [91]	9 (8) [9]	101 (5)
5-6.....	297 (16) [92]	25 (24) [8]	322 (17)
7-12.....	1,217 (68) [95]	61 (57) [5]	1,278 (67)
≥13.....	177 (10) [97]	6 (6) [3]	183 (10)

*Information on some patients is missing.
†P < .05. ‡P < .001. §P < .01.

addition, a lack of formal education was associated with a significantly higher percentage of persons reaching the threshold score: 5 (21%) of those with no education, 9 (9%) completing first to fourth grades, and 25 (8%) with a fifth- to sixth-grade education met the criterion compared with 61 (5%) persons with secondary level education and 6 (3%) with college experience ($P < .001$). Last, patients with VDS scores of 13 or higher had resided longer in the United States than those not classified as depressed (0.79 months versus 0.87 months; $P < .05$), a finding of unlikely clinical importance. Univariate logistic regression models using these same demographic variables confirmed these findings. When these variables were entered into the model simultaneously, however, thereby adjusting their relationship with VDS scores for the confounding effects of other variables in the model, only being separated, widowed, or divorced ($P = .008$) and level of education ($P = .01$) were significant predictors.

As seen in Table 2, the frequency and level of physical symptom endorsement also revealed several interesting patterns. Overall, headaches were reported by 414 (21%) persons, backaches by 253 (13%), and limb aches by 240 (12%). Altogether, 26% of patients reported being anxious about one of these symptoms. In addition, 20% experienced loss of appetite and physical fatigue. For each physical symptom, the prevalence was significantly

higher in the depressed than the nondepressed group (data not shown, $P \leq .001$).

Dysphoria was the most frequently reported psychological symptom, having been experienced by 610 persons (31%). Difficulty in concentrating was almost as common, with 597 (30%) patients indicating that they often or always had this problem. Other symptoms of depression—notably downhearted and low-spirited, low-spirited and bored, exhausted, and feeling hopeless—were described as present by about 10% of the sample. Again, patients who met the threshold criterion reported a significantly greater presence of all psychological symptoms than those who did not meet the criterion (data not shown, $P \leq .001$).

Finally, culture-specific symptoms also were frequent. For example, 321 (16%) patients were sad and bothered, and 199 (10%) were bothered. Anger, shameful and dishonored, and desperation were expressed by about 7% each, and 65 (3%) patients often or always had the feeling that they were going crazy. Compared with those scoring less than 13, all culture-specific symptoms were more common in the depressed group (data not shown, $P \leq .001$).

The reliability of the VDS in this population and setting was adequate. α Coefficients were calculated for the entire sample and by sex and educational level. Overall, the standardized α was .89; for gender and educational level, it ranged from .87 to .91.

Discussion

Several community-based surveys among Vietnamese refugees have found substantial and continuous physical and mental dysfunction following migration, related to

TABLE 2.—Prevalence of Individual Symptoms in Vietnamese Patients, (n = 1,998)

Type of Symptom	Patients, No. (%)
Physical symptoms	
Headaches.....	414 (21)
Backaches.....	253 (13)
Limb aches.....	240 (12)
Anxiety about above symptoms.....	504 (25)
Loss of appetite.....	391 (20)
Fatigue.....	382 (19)
Psychological symptoms	
Sad.....	610 (31)
Difficulty concentrating.....	597 (30)
Exhausted.....	231 (12)
Downhearted and low-spirited.....	219 (11)
Low-spirited and bored.....	162 (8)
Hopeless.....	137 (7)
Culture-specific symptoms	
Sad and bothered.....	321 (16)
Bothered.....	199 (10)
Angry.....	133 (7)
Shameful and dishonored.....	138 (7)
Desperate.....	112 (6)
Going crazy.....	65 (3)

instability in work, finances, spouse relations, lifestyle, traumatic experiences, and duration of residence in the host country.¹⁵⁻¹⁸ For example, in one study Southeast Asian refugees at highest risk for clinically important psychological distress were found to be the least educated and English-proficient, the most dependent on welfare, the poorest and most frequently unemployed, older and widowed, and those with the most traumatic migration histories.⁹ In a more recent survey in which a structured clinical interview was administered to 201 newly arrived Vietnamese refugees, war veterans and married persons were substantially more likely to have a psychiatric disorder.¹¹ Of interest, the rate of major depression (5.5%) reported by the investigators is remarkably similar to the 6% of patients in our study who had VDS scores suggestive of depression (≥ 13). A similar prevalence of VDS scores of 13 or higher was observed in a group of young adults screened in a refugee camp.¹⁹

More selected samples from primary care facilities also have been the subject of investigation. The screening of Southeast Asian refugees using standardized instruments revealed that almost two thirds had scores suggestive of depression.^{20,21} Among Vietnamese, the VDS was used to assess the prevalence of depression among 97 patients in a community health clinic.¹³ Depression was detected in more than half, yet most cases had not been diagnosed by the primary care physician, perhaps because virtually all patients presented with physical complaints. At the Khao I Dang refugee camp in Thailand, a third of all unselected patients examined by a psychiatrist received a psychiatric diagnosis compared with 2% of those examined by a general physician during the same interval.²² Though not exclusively concerned with depression, this last report further underscores the frequency with which mental health problems escape detection even by trained health care professionals working with Southeast Asian refugees at highest risk.

Last and not surprising, at least half of Southeast Asian refugee patients seen at special psychiatric clinics met criteria for major depression and anxiety.²³⁻²⁷ Widowhood and traumatic experiences were correlated with more symptoms. Of particular interest, a review of Vietnamese patient records from two Los Angeles County mental health centers produced similar results²⁸ and reconfirmed the predominance of somatic complaints among Southeast Asians.^{24,28} Again, traumatic experiences, isolation, or estrangement from family were closely associated with the presence of depression. Even more important, 87% of all patients either rejected or prematurely terminated treatment.²⁸

The results of the current study are congruent with this body of knowledge. Specifically, the multivariate analysis excluded sex, age, and duration of residence as predictors of depressive symptoms, yielding marital status and educational level as the most salient factors. Moreover, as emphasized in previous investigations, Southeast Asian patients frequently somatize their depression, presenting with apparently physical com-

plaints that may be mistakenly accepted as such by their physician.²⁹ Our results can be seen as consistent with this observation, although there was no systematic attempt to attribute symptoms to medical or psychological causes. Vietnamese refugees also are able to describe their distress in relatively sophisticated psychological terms. The meaning of some of these terms overlap with those used by non-Vietnamese providers; others do not. Hence, the communication problems—and real differences in symptom presentation—that may occur across such cultural boundaries diminish the likelihood of depression being detected among this population.

A discrepancy between our results and much of the existent literature is the relatively low prevalence of probable depression. This finding can be understood in several ways. First, although only 6% of our patients had VDS scores of 13 or higher, 31% reported a dysphoric mood during the past week. Dysphoria is a central feature of depression; yet, it is a necessary but insufficient condition for the disorder. Second, the specificity of the VDS as a screener for depression may be greater than its English counterparts, perhaps due in part to the careful attention given to culturally specific symptoms. Third, although recruited through primary care settings, study participants actually approximated the population of all adult Vietnamese refugees entering the United States through these ten geographic areas during the study period. Pressure from sponsors, volunteer agencies, public health services, and the Immigration and Naturalization Service to submit to health screening soon after arrival virtually guaranteed their visit to the clinics in question. Indeed, most patients had no special medical needs that would motivate their return to the clinic after the initial visit. Thus, the dynamics of seeking help that characterize other primary care patient groups may not have been at work in the same way with this one. Finally, the relatively low prevalence of probable depression may be due to the correspondence of the screening period with the euphoria or brief “honeymoon” period refugees may experience shortly after immigration.^{9,11,15,30,31}

In conclusion, the primary medical care setting is a highly appropriate focus for detecting depression among Southeast Asians. This study demonstrates the feasibility of screening with the VDS for such problems in Vietnamese refugee patients. Multiple somatic symptoms coupled with any indication of depressed mood should alert clinicians to the possible presence of an affective disorder. Primary care patients already have come for help and accepted the “patient” role; therefore, psychiatric case finding and offering treatment may be less intrusive than it would be in other settings. Furthermore, because this setting is not defined as “psychiatric,” the stigma associated with mental health treatment may be more easily minimized, especially for populations similar to the one considered in this article. Primary care professionals should consider incorporating the VDS into the clinical assessment of Vietnamese patients seen in general medical practices.

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