

Interpretation of Symptom Presentation and Distress

A Southeast Asian Refugee Example

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Symptom expression or the manifestation of distress is greatly influenced by one's cultural background. This exploratory study investigated symptom presentation of distress among a community sample of Vietnamese, Chinese-Vietnamese, Cambodian, and Lao refugees. The study examined whether or not the Western-designed distress measure used in the study was culturally sensitive enough to accurately capture culturally framed expressions of distress. The results of the factor analyses showed that the four Southeast Asian refugee groups did not express distress in three separate factors as devised in the original measure. Instead, a single robust factor emerged. The single factor comprised items from the depression, anxiety, somatic, and psychosocial dysfunction subscales. The items that made up the single factor strongly resemble the construct for the diagnosis of neurasthenia. Researchers have found neurasthenia to be a culturally sanctioned Asian cultural idiom of distress. The findings strongly suggested that this Southeast Asian refugee population expressed distress in a pattern of symptoms more consistent with Asian nosology. The clinical and research implications of the results of this exploratory study are also discussed.

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Evidence suggests that the expression of symptoms of psychological distress among ethnic minorities is greatly influenced by complex cultural interactions of numerous variables, such as concepts of mental health, the nature of the stresses confronting the individual, culturally framed symptom interpretation, the individual's coping repertoire, and social support and resources (Eyton and Neuwirth, 1984; Fabrega, 1989; Kirmayer, 1989; Kleinman, 1982; Phillips and Draguns, 1969; Tseng and Hsu, 1969; Wenger, 1993). The variability of the expression of distress strongly suggests that the search for universal similarities in psychiatric disorders may distort the type of pathology that exists (Phillips and Draguns, 1969). For example, similar complaints may be found across different cultures, but they seem to appear in different patterns and be subject to different causes. Thus, behaviors that appear to be similar across cultures may not have the same conceptual or functional equivalence. That is, the meaning and symbolic value of similar symptoms may be culture specific and thus are not interchangeable across cultures (Kleinman et al., 1978; Mechanic, 1972; Tseng and Hsu, 1969). It is

the total pattern of complaints within a cultural context that becomes diagnostic, and thereby dictates appropriate intervention (Davitz et al., 1976; Marsella et al., 1973).

This paper explores the nature of symptom expression among Southeast Asian refugees who have come to the United States in large numbers over the past 15 years. This group is at high risk for developing serious psychiatric disorders due to their traumatic premigration experiences of war and genocide (Lin et al., 1979; Mollica and Lavelle 1988; Mollica et al., 1987; Rumbaut 1990). With a few exceptions (e.g., Kinzie et al., 1982), identification and characterization of distress for this population have been conducted primarily using Western measures or diagnostic criteria (as currently embodied in DSM-IV or ICD-10). This is a common approach taken by Western researchers conducting cross-cultural studies of psychiatric distress (Liang et al., 1991; Rogler, 1993). Such studies rarely include other measures designed to capture patterns and concepts of distress that may lie outside categories based upon Western nosology (Kirmayer, 1989). Direct translation of measurements is sometimes the only effort made to address cultural variations in distress and symptom presentation (Fabrega, 1989; Tseng and Hsu, 1969). Efforts to assure conceptual equivalence in these translations, and thus validity, is often overlooked (Jones, 1986; Jones and Kay, 1992).

In this exploratory study, we raised two questions that incorporate the issue of conceptual equivalence in cross-cultural research. The first investigates how

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culture impacts symptom presentation. In this paper, we examine whether a community sample of Southeast Asian refugees expresses psychological distress in a pattern of symptom clusters more culturally consistent with Asian nosology, that is, through somatic and physical symptoms, such as headaches, body weakness, pressure on the chest or head, insomnia, and tenseness (Lin et al., 1979; Mollica et al., 1987; Nguyen, 1982; Rahe et al., 1978), than the patterns required by Western diagnostic criteria. The second question addresses the validity of applying measures developed using Western samples with this Southeast Asian population. Since the success of psychotherapy and adjustment to the United States depends upon accurate diagnoses and effective treatment, and the Southeast Asian refugees are found to be at high risk for developing serious psychiatric disorders, measures used to identify and categorize their distress must be accurate.

Methods

Sample

The data used in this study are from the California Southeast Asian Mental Health Needs Assessment study conducted for the State of California, Department of Mental Health (Gong-Guy, 1986). The community sample comprised Vietnamese ($N = 867$), Cambodians ($N = 590$), Lao ($N = 723$), and Chinese-Vietnamese ($N = 291$), between the ages of 18 and 68, with a median age of 35. Forty-four percent were females and 56% were males. This sample was drawn from nine counties in California that contain 90% of the Southeast Asian refugee population in the state of California. The Vietnamese and Chinese-Vietnamese have spent an average of 6.6 years in the United States, and the Cambodians and Lao have spent 4.7 and 6.3 years, respectively. The Vietnamese were the most highly educated group, with an average of 10.5 years of education received in their home country, followed by the Chinese-Vietnamese with 7.8 years, Lao with 7.2 years, and Cambodians with 5.9 years. The Cambodians and Lao had spent an average of 3 years in refugee camps, the Vietnamese had spent 1.4 years, and the Chinese-Vietnamese had spent 1 year.

Bilingual interviewers were recruited from within each of the targeted communities in each of the nine counties. The Vietnamese and Chinese-Vietnamese samples were contacted by telephone using a random sampling technique. Telephone sampling and telephone interviews were selected for these samples because of their greater familiarity and comfort with telephones in relatively well-developed Vietnam. The Cambodian and Lao informants were contacted by using multi-cluster sampling strategy for face-to-face interviews and use of key community informants, because many did

not have telephones¹ and these individuals were less familiar with the survey process. The questionnaire was translated into Vietnamese, Khmer, and Lao by bilingual staff. Back translation was conducted through pilot interviews and questions were then tested for accuracy through subsequent pilot interviews.

Measures

The Health Opinion Survey (HOS; Leighton et al., 1963) was used as the screening tool for the original study (Gong-Guy, 1986). For this study, the depression, anxiety (which includes somatic items), and psychosocial dysfunction subscales were selected from the HOS because these are the most common problems presented by Southeast Asian refugees in the clinical setting (Boehnlein et al., 1985; Kinzie and Fleck, 1987; Kinzie et al., 1984; Mollica et al., 1987; Muecke, 1983; Nicassio, 1985; Rumbaut, 1990). Although the use of the HOS with the Southeast Asian populations has been limited to a single previous epidemiological study (Meinhardt et al., 1984), its utility as a screening tool to identify at-risk populations in other ethnic groups, notably African-Americans and Hispanics, has been demonstrated previously (Gong-Guy, 1986). These studies, however, have not examined the factor structure of the HOS.

Statistical Analyses

For this exploratory study, factor analysis appears to be an appropriate method for investigating symptom expression. Factor analysis provides the ability to objectively derive a total pattern of disorders on a standardized measure (Jones and Kay, 1992), and has frequently been used in studies attempting to derive symptom clusters across many ethnic and cultural groups (e.g., Caudill and Schoder, 1969; Lorr and Klett, 1969; Marsella et al., 1971). This technique has also been found useful in generating symptom clusters associated with particular diagnoses. For example, using factor analysis, Kiloh and Garside (1963) reported four subtypes of psychotic depressions.

Principal components analyses and varimax rotations were performed separately for each of the four different cultural groups to examine whether or not the items loaded on the same factors for each group. Analyses of variance were also conducted to examine intergroup differences in the level of distress.

Results

The results of the factor analyses showed that a *single*

¹ A detailed description of the sampling technique is available in the published report from the original study.

² Factor analysis was also conducted separately for males and females in this sample. These results are reported elsewhere.

A robust factor emerged for all four Southeast Asian refugee groups rather than the three separate factors of depression, anxiety, and psychosocial dysfunction. The single factor consisted of 30 items and accounted for 41% of the variance for Vietnamese, 38% for Lao, 37% for Chinese-Vietnamese, and 36% for Cambodians. Six items from the original 36 items that made up the three factors were deleted due to low loadings (below .35) on the single factor.

The single factor, comprising items from each of the original three factors, consisted of four areas: a) depression (e.g., how often do you feel that life is hopeless? How often do you feel alone and helpless?), b) anxiety (e.g., have you been bothered by your heart beating hard? Have you ever been bothered by shortness of breath when you are not exerting yourself?), c) somatic symptoms (e.g., do your hands ever tremble enough to bother you? Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?), and d) psychosocial dysfunction (e.g., have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going? Have you ever had to stay at home or in bed because of worry or nervousness?). Table 1 gives the factor loadings on the single factor for each of the four Southeast Asian refugee groups.

To assess whether the findings were attributable to cultural influences on symptom expression, three separate sets of factor analyses were then conducted using the total sample. The rationale for combining the four different groups was that the results of the factor analyses showed similar findings and combining the four groups together provided a larger sample size that reduced the probability of errors in the findings. The first set of factor analyses examined the effect of acculturation on the initial findings. Studies on Asian immigrants suggest that acculturation occurs after living in the United States for 5 to 6 years (Sue and Zane, 1985). Therefore, the first set of analyses consisted of dividing the total sample into two groups using years in the United States as the criterion. To more clearly identify the effects of "pre" and "post" migration acculturation effects, the two extreme groups were selected based on Sue and Zane's (1985) definition: those who had been in the United States for less than 4 years ($N = 675$) and those who had been in the United States for more than 7 years ($N = 644$). The results of the factor analyses showed no difference between these groups. Similar to the initial findings, a single factor emerged that accounted for 35% and 36% of the variance.

The second set of analyses used English proficiency as an indicator of Westernization. The total sample was divided into those who reported having low English proficiency ($N = 991$) and those who reported high English proficiency ($N = 542$). The English proficiency

groups were created by taking the mean of the variables speaking, writing, and reading English. Each of these three variables consisted of a 5-point scale ranging from excellent (1) to very poor (5). The results indicated differences between the two English proficiency groups. A single factor emerged for the low English proficiency group that accounted for 35% of the variance. Two or three factors emerged for the high English proficiency group. The first factor represented a combination of depression and anxiety items, the second factor consisted of some psychosocial dysfunction and somatic items, and the third factor comprised dysfunction items.

The third set of analyses used level of education as another indicator of Westernization. The total sample was divided into two groups, those who had received no formal education in their home country ($N = 258$) and those who had received college education in their home country ($N = 564$). Again, the results showed differences between the two groups. A single factor emerged for the no formal education group that accounted for 35% of the variance, and two or three factors emerged for the college education group. The first factor comprised both anxiety and depression items, the second factor consisted of depression and psychosocial dysfunction items, and the third factor comprised somatic and anxiety items.

Thus, no differences in the factor structure appeared between the two groups divided according to the number of years in the United States, but differences were found for the English proficiency and education groups. For those with low English proficiency and no formal education, a single robust factor emerged, whereas for those with high English proficiency and high education, the findings suggested two or three factors. From this analysis, it appeared that the findings suggested that acculturation and/or Westernization might have an effect on symptom expression.

As expected, further examination of the data showed that those with no formal education and low English proficiency also reported significantly higher levels of distress, whereas those with high education and high English proficiency reported significantly lower levels of distress. The direction of effect, however, was unclear. Therefore, the levels of distress may have influenced the findings. That is, the differences found between the high and low groups might have been an artifact of the differences in the levels of distress and not differences in symptom expression. Therefore, to control for the differences in the level of distress between the high and low groups, factor analyses were conducted again. For both the English and education groups, the respondents in the low and high categories were matched on the levels of distress. For each English and education high and low group, the distress

TABLE 1
Factor Loadings for the Single Factor for the Four Groups

Item no.	Items	V*	C	L	C-V
32	Do your hands ever tremble enough to bother you?	.57	.56	.57	.74
33	Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?	.45	.57	.50	.63
34	Have you been bothered by your heart beating hard?	.52	.58	.66	.66
35	Do you tend to feel tired in the morning?	.57	.60	.57	.74
36	Do you have trouble getting to sleep and staying asleep?	.60	.55	.63	.64
37	How often are you bothered by having an upset stomach?	.36	.55	.56	.51
38	Are you ever bothered by nightmares (dreams which frighten you)?	.59	.35	.47	.62
39	Have you ever been troubled by "cold sweats"?	.50	.60	.54	.53
40	Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?	.69	.68	.63	.75
42	Do you ever have loss of appetite?	.54	.40	.53	.42
43	Has any ill health affected the amount of work (housework) you do?	.67	.67	.62	.78
44	Do you ever feel weak all over?	.71	.67	.70	.72
45	Do you ever have spells of dizziness?	.56	.64	.66	.51
46	Do you tend to lose weight when you worry?	.51	.47	.63	.49
47	Have you ever been bothered by shortness of breath when you were not exerting yourself?	.52	.65	.63	.53
51	Have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going?	.55	.51	.41	.64
52	During the last year, did worry or nervousness get you down physically?	.74	.79	.69	.83
53	During the last year, did worry or nervousness cause problems in your family life?	.67	.77	.66	.77
54	During the last year, did worry or nervousness interfere with your social activities?	.65	.69	.64	.79
55	During the last year, have you ever had to stay at home or in bed because of worry or nervousness?	.67	.74	.69	.72
56	During the last year, were you unable to do your usual work because of worry or nervousness?	.71	.72	.73	.78
63	How often would you say things don't turn out the way you want them to?	.41	.63	.54	.33
64	How often do you have crying spells or feel like it?	.53	.67	.60	.53
65	How often do you feel you don't enjoy (doing) things any more?	.65	.70	.47	.77
66	How often do you feel alone and helpless?	.62	.62	.62	.58
67	How often do you feel that people don't care what happens to you?	.65	.70	.58	.64
68	How often do you feel that life is hopeless?	.65	.70	.61	.73
70	How often do you have trouble with sleeping?	.63	.63	.63	.39
71	When things don't turn out, how often would you say you blame yourself?	.48	.63	.46	.40
72	How often do you think about harming yourself?	.50	.60	.54	.43
Variance		41%	36%	38%	37%

* V = Vietnamese, C = Cambodian, L = Lao, C-V = Chinese-Vietnamese.

score was divided into quartiles. This created a distribution of distress scores for each group on each quartile. As mentioned earlier, the low English and education groups were found mainly in the two highest distress quartiles and the high English and education groups were found mainly in the two lowest distress quartiles.

Due to small sample size in the high and low ends of the quartiles, all four quartiles were included in the analyses. Respondents in each of the quartiles were randomly chosen from within the high and low English and education groups. For example, for the education groups, 97 respondents in the high education group

were in the highest distress quartile, compared with 108 from the no formal education group. Ninety-seven respondents from the latter group were randomly chosen to match the sample size of the former group. From these procedures, the high and low education and English groups were matched on distress levels. The high and low education groups each consisted of 247 respondents and the high and low English groups each comprised of 542 respondents.

The results of the factor analyses showed that once the differences in the distress levels were controlled for, differences in results of factor analyses between the high and low groups disappeared. For all groups, a single robust factor emerged that accounted for 34% of the variance for the low English proficiency group, 30% for the high English proficiency group, 42% for the low education group, and 39% for the high education group. Table 2 shows the factor loadings for these groups. The previous differences in the results of the factor analyses between the high and low education and English proficiency groups therefore appeared to be due to the level of distress. This final analysis confirmed the initial findings which indicated that all four Southeast Asian refugee groups expressed distress with a single, robust, multidimensional factor.

The coefficient alpha for the single factor was .92 for Chinese-Vietnamese, .93 for Vietnamese, .94 for Lao, and .95 for Cambodians. These high alphas suggest that this single factor is a reliable measure of distress for this population. To further examine the components of this 30-item single factor, interitem and item-to-total correlations were conducted. All items correlated significantly with the total score, and 18 of the 30 items correlated highly (.6 or above). These 18 items were further examined to establish whether or not a specific cluster of items was associated with the total score, but no such cluster emerged. Instead, these 18 items again evenly represented the four areas that made up the single factor: depression, anxiety, somatic symptoms, and psychosocial dysfunction.

The results of the analysis of variance on the single factor showed a significant main effect ($F[3,2467] = 32.92, p < .0001$), with significant intergroup differences. Both the Cambodians (mean \pm SD, 63.63 ± 17.73) and Lao (63.27 ± 15.79) reported significantly higher levels of distress than did the Vietnamese (57.97 ± 13.95) and Chinese-Vietnamese (55.73 ± 13.49). No significant difference was found between the Cambodians and Lao in the level of distress on the single factor, but the Vietnamese reported significantly higher levels of distress than did the Chinese-Vietnamese.

Discussion

This exploratory study examined symptom expres-

sion among Southeast Asian refugees. The data were derived from the largest community needs assessment study for this population to date. The study used two different data collection techniques based upon cultural appropriateness and feasibility. The Vietnamese and Chinese-Vietnamese were interviewed by telephone and the Cambodian and Lao were interviewed in person. The HOS was used as a screening instrument for general distress. Although the measure does not contain specific scales for DSM-III-R or DSM-IV diagnoses, it does provide a measure of general distress. The high levels of distress found in this community sample raises questions regarding the mental health of this high risk population (Gong-Guy, 1986).

Consistent with previous studies, the findings from this exploratory study found intergroup differences in the distress levels among the Southeast Asian refugee populations (*e.g.*, Chung and Kagawa-Singer, 1993; Mollica and Lavelle, 1988; Mollica et al., 1987). In this study, both the Cambodians and Lao reported significantly higher levels of distress than did the Vietnamese and Chinese-Vietnamese, and the Vietnamese reported significantly higher levels of distress than did the Chinese-Vietnamese. It has been suggested that these intergroup differences are due to differences in the premigration experiences (Mollica and Lavelle, 1988) and also to the availability and accessibility of traditional medicine and culturally congruent resources in the United States. For example, for the Chinese-Vietnamese, and to some extent for the Vietnamese, traditional medicine and social support may be found in the Chinese-American communities (Chung and Lin, 1994).

Results of the factor analyses showed that for all four groups, a strong, robust single factor emerged instead of three discrete factors originally derived in the HOS. The results suggest a difference in symptom expression for this population.

To explore this issue further, the four groups were combined into one group for further analysis. The rationale for this is that similar findings were found for each of the four groups. By combining the groups together, a larger sample size resulted and therefore reduced the probability of error in the findings. Initial analyses indicated that the degree of acculturation, as measured by years in the United States, did not seem to affect the factor structure, that is, the symptom expression for this population. However, when the sample was divided into those with low and high English proficiency and education, two or three separate factors emerged for those with higher education and English proficiency, and a single factor emerged for those with no formal education and little English proficiency. The differences between the high and low groups could be due to Westernization. That is, those with education and English proficiency may be more familiar with in-

TABLE 2
Factor Loadings of the High and Low Education and English Proficiency Groups Controlling for the Level of Distress

Item no.	Items	Education		English	
		High	Low	High	Low
32	Do your hands ever tremble enough to bother you?	.52	.61	.53	.54
33	Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?	.47	.55	.36	.53
34	Have you been bothered by your heart beating hard?	.54	.55	.46	.57
35	Do you tend to feel tired in the morning?	.61	.63	.48	.58
36	Do you have trouble getting to sleep and staying asleep?	.65	.59	.51	.60
37	How often are you bothered by having an upset stomach?	.45	.49	.33	.50
38	Are you ever bothered by nightmares (dreams which frighten you)?	.42	.55	.39	.50
39	Have you ever been troubled by "cold sweats"?	.57	.68	.45	.53
40	Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?	.67	.72	.59	.64
42	Do you ever have loss of appetite?	.46	.48	.48	.43
43	Has any ill health affected the amount of work (housework) you do?	.62	.66	.67	.65
44	Do you ever feel weak all over?	.68	.76	.67	.65
45	Do you ever have spells of dizziness?	.61	.67	.51	.51
46	Do you tend to lose weight when you worry?	.45	.51	.54	.49
47	Have you ever been bothered by shortness of breath when you were not exerting yourself?	.60	.67	.55	.55
51	Have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going?	.48	.53	.50	.47
52	During the last year, did worry or nervousness get you down physically?	.77	.81	.68	.71
53	During the last year, did worry or nervousness cause problems in your family life?	.73	.73	.62	.70
54	During the last year, did worry or nervousness interfere with your social activities?	.68	.68	.65	.65
55	During the last year, have you ever had to stay at home or in bed because of worry or nervousness?	.74	.81	.60	.66
56	During the last year, were you unable to do your usual work because of worry or nervousness?	.71	.78	.59	.65
63	How often would you say things don't turn out the way you want them to?	.62	.51	.35	.41
64	How often do you have crying spells or feel like it?	.66	.63	.46	.52
65	How often do you feel you don't enjoy (doing) things any more?	.72	.69	.55	.55
66	How often do you feel alone and helpless?	.66	.69	.55	.51
67	How often do you feel that people don't care what happens to you?	.70	.72	.57	.59
68	How often do you feel that life is hopeless?	.74	.76	.52	.62
70	How often do you have trouble with sleeping?	.64	.63	.54	.60
71	When things don't turn out, how often would you say you blame yourself?	.55	.52	.43	.47
72	How often do you think about harming yourself?	.60	.62	.50	.47
Variance		40%	44%	30%	35%

interviews, self-report measures, and Western terms of distress and may have a high level of reading comprehension (Anderson et al., 1993; Mavreas et al., 1989). The no formal education and low English proficiency groups were also found to report significantly higher levels of distress compared with the high education

and high English proficiency groups. Yet, once the level of distress was controlled for, differences between the high and low English and education groups did not appear, and a single robust factor emerged for all groups that was similar to the findings for the four different Southeast Asian refugee groups. Therefore,

the differences that occurred previously between the high and low groups appear to be attributable to the differences in the levels of distress, and not to the more commonly considered variables of acculturation. Once the distress level was controlled for, the single factor of symptom presentation emerged for all groups.

The single factor that emerged comprised a complex of symptoms that suggests, as hypothesized, that Southeast Asian refugees expressed symptoms in a manner more consistent with Asian nosology than with Western clinical categories. Intriguingly, the items that make up the single factor strongly resemble the construct for the diagnosis of neurasthenia (Cheung, 1989; Lin, 1980; Young, 1989).

Neurasthenia originated as a Western diagnosis in 1869, and has been in and out of fashion in Western therapy for the last hundred years. It was deleted from the *Diagnostic and Statistical Manual of Mental Disorders*, revised (DSM-III-R), but has become a common popular lay and psychiatric diagnosis in Asian countries (e.g., Hong Kong, Taiwan, and China), even where clinicians have been trained in Western techniques and Western diagnostic systems are used (Cheung, 1989; Murakata, 1989). Neurasthenia is considered to fit a culturally sanctioned Asian idiom of distress (Kleinman, 1986).

Two main reasons have been offered for the widespread acceptance of neurasthenia in Asia: a) neurasthenia describes a complex of symptoms that are compatible with the holistic concept of health and illness basic to the traditional Asian medical paradigm in which psychological and somatic factors coexist in a mind/body complementarity, and b) mental illness among Asians is highly stigmatized and viewed as a genetic defect (Cheung, 1989). Neurasthenia offers useful ambiguity, which allows for implicit and discrete admission of a variety of less socially acceptable symptoms and still leaves room for saving face.

The construct of neurasthenia combines both somatic and psychological manifestations of distress. It is conceived as natural in response to inevitable life events and carries less stigma than a psychiatric disorder, whereas Western psychiatric classifications contain too many negative connotations associated with innate characteristics. Interestingly, the ambiguity in the diagnosis of neurasthenia that appears to make it more useful for Far East Asian cultures, as well as its overlap with other psychoneurotic disorders, has led to the progressive decline in the use of this concept in Western psychiatry and its eventual removal from DSM-III (Abbey and Garfinkel, 1991; Young, 1989).

Clinical Implications

The results of this exploratory study have both clinical and theoretical implications. Numerous studies

have found that Asians tend to underutilize mainstream mental health services (Sue et al., 1991). This has been attributed to differences between therapist and client in the conceptualization of mental health and expectations of the treatment process (Kagawa-Singer and Chung, 1994), language barriers, and accessibility factors, such as inconvenient hours of service and stigma against "mental" problems (Chung and Lin, 1994). When and if Asians seek mainstream services, the mental health problems are often more severe than for other clients (Sue et al., 1991). It has been suggested that severity of symptoms presented at mainstream services is due to the fact that Asians seek these services as a last resort, when the symptoms become too severe and unmanageable by their caretakers (Durvasula and Sue, 1992; Okazaki, 1994; Sue and Morishima, 1982).

Most of the studies on utilization of mental health services by Asians have been conducted using a clinical population or those who have sought services. With the low rates of use by Asians, the assumption has been that Asians have few mental health problems (Sue et al., 1991). Epidemiological studies, however, are necessary to accurately assess mental health disorders among Asians. As yet, large scale national surveys, such as the epidemiological catchment area studies (Robins and Regier, 1991) and Michigan's national comorbidity study (Kessler et al., 1994), have not targeted the Asian American and Pacific Islander population for oversampling. Thus, no baseline data presently exist for the Asian American and Pacific Islander community. The first epidemiological study on Asians is currently being conducted at the University of California Los Angeles (National Research Center on Asian American Mental Health, 1994), and will provide information on the prevalence rates of mental health disorders in the community and utilization patterns of mental health services.

Most studies on the Southeast Asian refugee population have documented the enormous health and mental health needs of this population. However, Southeast Asian refugees may be reluctant to seek mainstream services for the reasons noted above. It is obvious that more effective outreach efforts and/or appropriate intervention strategies need to be implemented to assist them in overcoming their premigration trauma and moving toward successful resettlement (e.g., Chung and Kagawa-Singer, 1993; Lin et al., 1979; Mollica and Lavelle, 1988).

The findings from this study indicate that differences in patterns of symptom clusters among Southeast Asian refugees appear to exist. As with any client, to understand and intervene accurately, the therapist should be able to view mental health from within the client's conceptualization. For this population, it would be an Asian perspective (Kagawa-Singer and Chung, 1994). The results of this study suggested that had the re-

spondents sought mental or physical health assistance, their treatment expectations may not have been congruent with those of the therapist (Mezzich et al., 1992). Effective treatment without conceptual equivalence between therapist and client would be compromised at best, and the chances of their resolution become remote. Additionally, prescribing treatment common for European Americans for symptom relief without consideration of ethnic and biological differences also may be problematic. For example, adherence to the relatively longer time requirements for some psychotropic medications to reach therapeutic levels before symptom relief is experienced and the need to continue taking them once symptom relief is achieved are counterintuitive, and may be confusing. In addition, variations in the psychopharmacological and psychokinetic properties of some of the psychotropic drugs may cause unpleasant side effects, resulting in the premature termination of the drug by the client before the therapeutic effects occur (Lin et al., 1993; Zhou et al., 1989). The resulting lack of the client's perception of a positive response would reduce the credibility of mental health services.

Accurate assessment with conceptual equivalence in symptom expression both emotionally as well as medically is therefore essential before a cluster of symptoms is labeled with a diagnosis (Good and Good, 1981). The results of this study strongly suggest the need for more in-depth investigation of the presentation of distress of this Southeast Asian refugee population.

Intergroup differences in the level of distress were also found that have important implications for services. To provide effective treatment, it is crucial for services to be tailored to the specific needs of each group instead of aggregating all Southeast Asian refugees in one group. Services might then have a greater likelihood of being effective in meeting the unique needs of these clients and their families.

Research Implications

Theoretically, instrumentation and the conceptualizations that underlie the development of standardized tools to measure psychological distress become paramount (Rogler, 1993). The measures used in this study were asymmetrically translated (Jones and Kay, 1992). That is, the HOS measure was translated into the three Southeast Asian languages accurately, but the procedure assumed that the measure of depression, anxiety/somatic symptoms, and psychosocial dysfunction as defined in Western nosology was valid and reliable for this refugee population. Variances in the conceptualization of emotional distress in Cambodian, Lao, Vietnamese, or Chinese-Vietnamese nosology were not considered (Kirmeyer, 1989; Liang et al., 1991). A symmetrical translation was not conducted. In this latter technique,

translation is conducted for conceptual accuracy in the target language.

The factor analysis conducted in this study is an initial step in ferreting out potential differences in conceptualization, and this technique clearly defined a more culturally constituted nosology from the intended structure of the HOS. The single factor that emerged "fits" the Asian conceptualization of distress, that of neurasthenic symptoms, as a multidimensional concept. However, these findings warrant further confirmation and refined efforts to identify more culturally accurate diagnoses of distress. Further studies should incorporate the use of sophisticated statistical techniques, such as confirmatory models of factor analysis, other methodologies, such as, ethnographic interviews, use of comparison groups, and controlling for differences in socioeconomic status to fully examine the significance of cultural effects on symptom expression.

Conclusions

The results of this exploratory study of a community sample of Southeast Asian refugees suggested that Vietnamese, Cambodians, Lao, and Chinese-Vietnamese expressed distress in a pattern of symptom clusters more consistent with Asian nosology. Distress was expressed as a single robust factor comprising depression, anxiety, somatic symptoms, and problems in daily functioning rather than three separate dysphoric factors. The study also found that those who are educated and have high English proficiency report lower levels of distress compared with those who are not educated and who have low English skills. Attainment of these two factors is helpful in the adjustment process; however, education and English skills are not necessarily accurate indicators of acculturation. These commonly used indicators of acculturation cannot be assumed to ameliorate psychosocial distress. The process of acculturation itself poses additional stressors, as indicated by the varying levels of distress in the more highly acculturated groups. Therefore, more research concerning factors contributing to acculturation is required.

Although further research needs to be conducted to confirm these findings, two notable findings emerged from this study. First, the presentation of distress symptoms by the four Southeast Asian refugee groups strongly resembles the diagnosis of neurasthenia, not three discrete dysphoric symptoms as derived in the measurement tool. Second, significant intergroup differences were found in the levels of distress within the Southeast Asian refugee sample. These two findings, along with the growing attention and supporting evidence addressing ethnic differences in symptom expression, have direct implications for both theoretical development of stress responses and clinical develop-

ment of more accurate assessment, instrumentation, and outreach efforts. If researchers are assessing symptomatology with asymmetrically translated tools and defining distress in discrete Western categories, the findings may be reliable, but they may not be valid for the Southeast Asian refugee population. Discrepancies between definitions of the problem and treatment expectations between therapist and client would likely create barriers to effective treatment outcome.

Previous researchers have found that misclassification of psychiatric disorders of ethnic clients (Asians, African-Americans, and Latinos) have been due to the therapist's lack of understanding of cultural and/or linguistic differences (Baskin et al., 1981; Huertin-Roberts and Snowden, 1993). Growing evidence, including the findings from this study, demonstrates that efforts to force culturally expressed symptoms into discrete Western classifications may result in erroneous diagnoses and thus ineffective treatment. Therapists must become knowledgeable about Asian cultural variations in the expression of distress before effective treatment can begin. Researchers and therapists can no longer afford to ignore ethnic differences in symptom expression (Lopez, 1993). Both must examine the psychometric properties of the measures used in order to attain valid and reliable results. They must also be constantly alert to the ethnocentric bias inherent in diagnostic categories in both research and clinical practice, and make every effort to overcome the influences of these deep-rooted biases in their research and clinical practices.

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