

*The International Journal of Social Psychiatry* (1990) Vol. 36 No. 1 18-29

## INFLUENCE OF THERAPIST ETHNICITY AND LANGUAGE ON THERAPY OUTCOMES OF SOUTHEAST ASIAN CLIENTS

JACQUELYN H. FLASKERUD & P.Y. LIU

### SUMMARY

The purpose of this study was to examine the relationship of Southeast Asian client-therapist ethnicity and language match on three therapy outcomes: number of sessions with primary therapist, dropout from therapy and admission-discharge difference in Global Assessment Scale (GAS) scores. The sample consisted of 543 Southeast Asian client episodes in Los Angeles County mental health facilities between January 1983 and August 1988. Various types of multiple regression analyses were used to investigate the relationship of language and ethnicity match to the three outcome variables and to eight sociodemographic variables.

Either therapist-client language or ethnicity match significantly increased the number of client sessions with the primary therapist. Dropout from therapy was significantly affected by a language match in the Cambodian sample only but the effect was to increase dropout. Neither ethnicity nor language match was significantly related to GAS score gain. Several possible explanations for these findings and their clinical significance were explored.

### INTRODUCTION

The mental health problems of Southeast Asian refugees have been widely reported. Refugees who were resettled in the United States, Canada, Australia and the Netherlands all have been reported to be experiencing high rates of psychiatric dysfunction (Beiser *et al.* 1989; Boehnlein, 1987; Boman & Edwards, 1984; Flaskerud & Anh, 1988; Fox, 1984; Hondius & van Willigen, 1989; Kinzie *et al.* 1984; Mollica *et al.* 1987; Westermeyer, 1986). The mental health problems reported most frequently have been stress related disorders, anxiety, depression, and psychosis (Boehnlein, 1987); Flaskerud & Anh, 1988; Kinzie *et al.* 1984; Westermeyer, 1987). These disorders are thought to result, at least in part, from the wartime and resettlement experiences of the refugees: severe trauma, torture and deprivation, massive loss, sudden sociocultural change, geographic migration, role discontinuity and identity loss (Boehnlein, 1987; Flaskerud & Anh, 1988; Hondius & van Willigen, 1989; Kinzie *et al.* 1984; Mollica *et al.* 1987). In 1987, an assessment of the mental health needs of Southeast Asian refugees in California estimated that almost 28% were in great need of mental health assistance compared with 3% of the general population (Kam, 1989).

Mental health professionals and investigators working with these populations have noted the difficulty in providing psychiatric services because of cultural differences in the definition of

problems, the expectations of treatment, and the health care delivery system (Boehnlein, 1987; Flaskerud & Anh, 1988; Fox, 1984; Hondius & van Willigen, 1989; Mollica *et al.* 1987). The refugees are not familiar with the mental health care system in the United States. They are not aware of the mind-body dichotomy that characterises this system nor with the local concepts of mental illness and the different symptoms and therapies that are assigned to mental illness as opposed to physical illness in the Western world (Boehnlein, 1987; Flaskerud & Anh, 1988; Hondius & van Willigen, 1989; Kam, 1989; Mollica *et al.* 1987). There is also a cultural stigma associated with insanity and no gradations of emotional difficulty, only insanity and normality (Kam, 1989). This set of circumstances keeps the refugees from seeking appropriate assistance for their problems.

Many investigators have recommended culture-compatible mental health services to meet the refugees' needs (Boehnlein, 1987; Boman & Edwards, 1984; Flaskerud & Anh, 1988; Fox, 1984). In defining these services all investigators agree that an important factor in providing culturally acceptable services is that the therapist be skilled in the language and well-versed in the culture of the client. The ideal situation is thought to occur when the therapist and client share the same language and ethnicity.

Studies of the effect of therapist ethnicity and language on client outcomes are limited in number, but appear to support such a match. Beiser and colleagues (1989) reported that emotional and social support derived from persons of the same ethnicity moderated the risk of developing depressive symptoms among southeast Asian refugees, apparently by enhancing a sense of identity and belongingness. Wu and Windle (1980) examined the utilization rates of black, Latino, Asian and American Indian clients relative to ethnic/racial specificity in staffing. They found that black and Asian clients significantly increased their utilization if therapists were of the same ethnicity or race, but that Latino and American Indian clients did not. In reviewing the literature on counseling and psychotherapy with Asian-Americans, Leong noted (1986) that lack of a common language may result in a diagnosis of more severe psychopathology, decreased client self-disclosure, lower ratings of client-therapist rapport, and lower ratings of therapists' empathy and effectiveness.

Flaskerud and Liu (under review) studied the effects of Asian client-therapist language, ethnicity and gender match on three outcome measures: number of sessions with primary-therapist, dropout from therapy, and change in the Global Assessment Scale (GAS) score. Their sample did not include Southeast Asians. They found that either client-therapist language match or ethnicity match significantly increased the number of client sessions with the primary therapist. However, only ethnicity match had a significant effect on dropout rate. Gain in GAS admission-discharge score was not affected by either a client-therapist ethnicity or language match. Gender match had no consistent effect on any of the outcome variables. They concluded that both client-therapist language and ethnicity match are important variables affecting the outcomes of therapy.

The study reported here examines some of the same variables described above, but with a Southeast Asian sample. Because the need for mental health services to Southeast Asian refugees is reported to be great, it is crucial that the effective aspects of the therapy situation be identified. This study examined the relationship of Southeast Asian client-therapist ethnicity and language match on three therapy outcomes: number of sessions with primary therapist, dropout from therapy, and admission-discharge difference in Global Assessment Scale (GAS) scores.

**TABLE 1**  
**Sample Characteristics (N=543)**

Age	Percent
18-20	7
21-30	36
31-40	30
41-50	15
51-60	9
60 and over	3
<i>Education</i>	
1-6 years (primary)	29
7-9 years (junior high)	10
10-12 years (high school and vocational training)	45
13-16 years (college)	15
17-20 years (graduate)	2
<i>Marital Status</i>	
Never married	46
Now married	31
Ever married (Wid, Div, Sep)	23
<i>Living Arrangement</i>	
With relatives	71
With nonrelatives	18
Alone	5
Unknown	7
<i>Employment Status</i>	
Unemployed	87
Employed	5
Unknown/Other	7
<i>Primary Language</i>	
Vietnamese	58
Cambodian	20
English	9
Other	13

## METHOD

### Sample

The sample consisted of adult (18 years and older), outpatient, non-emergency Southeast Asian clients seen in all Los Angeles County mental health facilities between January 1983 and August 1988. During this period, there were 543 Southeast Asian client episodes with complete information on all the study variables; 95% of clients had only one episode per person; 5% of clients had more than one episode.

Sample characteristics are displayed in Table 1. The majority of clients were between 21 and 40 years of age (66%), with a high school or greater education (62%), male (56%), not currently married (69%), lived with relatives (71%), and were unemployed (87%). Over half (55%) could not speak English; 45% spoke some English. The primary language was Vietnamese for 58% and Cambodian for 20%.

Diagnosis for 42% was a psychotic disorder (schizophrenia, 20%, major depression, 22%). The remainder received nonpsychotic diagnoses including anxiety disorder (12%), adjustment disorder (16%), and affective disorder (11%). Treatment for the majority was one of the talking therapies plus medication (63%) or a talking therapy alone (33%). For 91%, the talking therapy included individual therapy.

The primary therapist was identified as the individual who conducted the greatest number of therapy sessions with the client. The largest percentage of clients were treated by females (55%) and by social workers (40%), followed by unlicensed mental health workers (19%), psychiatrists (15%), psychiatric nurses (12%), and psychologists (9%). Well over half (71%) were treated by Asian therapists (Vietnamese, 29%, Chinese, 22%, Cambodian, 11%, and Philippino, 11%); about 15% were treated by white therapists.

#### Data set

Data for the study originated from the Automated Information System (AIS) currently in use by the Los Angeles County Department of Mental Health. The purposes of the AIS data are for management, revenue collection, clinical management, and monitoring with the potential for research. Data are collected routinely on each client that accesses the County mental health system. Client information is collected on standardized forms by the therapist and then transferred to a computerized file by a clerk. Client files consist of demographic information, clinical information, type and extent of services used, and agency or service provider information.

The validity of the AIS data is controlled through a variety of mechanisms. First, all data are entered into the AIS through a fixed format screen. Out of range values, and certain logical and substantive inconsistencies are not allowed entry. Second, both the State and the County conduct programme audits and programme evaluations. Third, the County Department of Mental Health also monitors and reviews AIS operations and data entry. Variables of interest to this study are routinely monitored through these means.

Reliability of the AIS data has not been assessed systematically by the County Department of Mental Health. The reliability of two variables was of particular concern to this study: GAS scores and diagnosis. Reliability of GAS scores has been substantiated in experimental settings by Endicott and colleagues (1979). While such experimental controls do not exist in clinical settings, programmes of the Department of Mental Health conduct training sessions for their staff, and an internal study of raters indicated an overall intra-class correlation of .723 for admission GAS. This finding is comparable with the findings of Endicott and colleagues (1979) which ranged from .61 to .91. Reliability and validity of diagnoses has been discussed also in the literature (Coyell *et al.* 1978). While it is possible that reliability may be lower in clinical than in experimental settings, client diagnosis in this case was examined in two ways: it was dichotomized as psychotic and nonpsychotic and then reliability would be expected to be high. It was also examined according to the more specific diagnostic categories listed previously in this report: schizophrenia, major depression, anxiety disorder, adjustment disorder and affective disorder.

## INFLUENCE OF THERAPIST ETHNICITY AND LANGUAGE

**Study variables** Two independent variables were examined: ethnicity match of therapists and clients, and language match of therapists and clients. Client and therapist characteristics on each of the independent and dependent variables are displayed in Table 2. Specific ethnicity of the various Southeast Asian groups was not recorded in County data, but simply listed as Indochinese. To distinguish ethnicity, the primary language of the client and therapist was used.

**TABLE 2**  
**Characteristics of Sample related to Independent and Dependent Variables**  
**(N=543)**

Independent Variables	Percent
<i>Ethnicity Match</i>	
No match	74
Match	26
<i>Language Match</i>	
Match, English	39
Match, non-English	44
No match	17
<b>Dependent Variables</b>	
<i>Sessions with Primary Therapist</i>	
	20
2-9	42
10-19	17
20-29	8
30-39	6
40 and over	8
<i>Drop-out (therapist defined)</i>	
Dropout	16
No Dropout	84
<i>Change in GAS Scores</i>	
GAS admission-discharge score decrease	9
GAS admission-discharge score, no change	55
GAS admission-discharge score gain	36

Using primary language as an indicator, there was a client-therapist ethnicity match for only 37% of the sample. There was a language match for 83% when both English (secondary language) and non-English (primary language) were considered. Dependent variables studied were three measures of treatment outcome: number of sessions with primary therapist; dropout from therapy; and change in the Global Assessment Scale (GAS) score from admission to discharge.

The majority of clients has less than 10 sessions with their primary therapist (62%) and the majority did not drop out of therapy (84%). Dropout was examined initially using two operational

definitions: 1) clients who had attended only one therapy session; and 2) clients determined by their primary therapist to have withdrawn from treatment prematurely without giving a reason. However, in examining the data, it was determined that many clients who left therapy after only one session were referred to other county facilities. Therefore, the definition used for data analysis was therapist — defined dropout. Over half of the clients had no change in their admission-discharge GAS scores.

## ANALYSIS AND RESULTS

Various types of multiple regression analyses were employed to investigate the relationship of language and ethnicity match to the three outcome variables. The covariates included in the analyses were client age, gender, education, diagnosis, treatment mode, therapist discipline, client-therapist gender match, admission GAS, and number of sessions with primary therapist. (When the number of sessions was functioning as the outcome variable, it was not treated as a covariate).

### Number of sessions with primary therapist

Regression models allowing for censored data were used for this part of the analysis. About 36% of the episodes were not closed when the data set terminated. A substantial portion of these not-yet-discharged episodes were unusually long and involved psychotic clients who were receiving talking therapy and medication. They were not recent episodes started just before the end of the data set. Discarding them would have certainly created bias. Therefore, the true number of sessions were not known for these episodes. They were considered in the analysis as truncated or 'censored'. Four distributions were examined: Exponential, Weibull, Lognormal, and Gamma (*SAS User's Guide*, 1985). The Gamma distribution family provided the best fit with the data. It produced uniformly smaller standard errors for all parameter estimates than the other distributions. All distributions gave qualitatively similar results.

Table 3 displays the estimated multiplicative effects of ethnicity and language match relative to the baseline group (nonmatch on both ethnicity and language) for Vietnamese and Cambodians only ( $N = 427$ ) using the Gamma distribution. For example, compared to the baseline, the effect of a Vietnamese primary language match (line 2) was to increase the number of sessions by 4.69 fold with a  $p$  value of less than .0001. The effect was multiplicative; the  $p$  value indicates the statistical significance of the effect as it differs from 1.00 (the baseline). The effect (1.48) of an English language match (line 4) was not significantly different than the baseline. When both Vietnamese ethnicity and language were matched (line 3), the effect, although still highly significant, decreased to 2.72. Each of these effects (lines 2, 3 & 4) were also significantly different than each other. That is, the effect (4.69) of Vietnamese language match (line 2) was significantly different than the effect (2.72) of Vietnamese language and ethnicity match (line 3) and the effect (1.48) of English language match (line 4) ( $p = .007$  and  $.0001$  respectively). Furthermore, the effect (2.72) of a Vietnamese language and ethnicity match (line 3) was significantly different ( $p = .002$ ) than the effect (1.48) of an English language match (line 4).

The results were similar for the Cambodian clients. The effect of a Cambodian language match was to increase the number of sessions by 4.08 fold over the baseline ( $p = .0004$ ). The effect

(2.36) of both Cambodian language and ethnicity match while statistically significant ( $p = .02$ ) was lower than language match alone. There were no English language therapist-client matches in the Cambodian sample.

Of the covariates included in the analysis, client gender, client-therapist gender match, education, admission GAS score of the client, and diagnosis were not significant. The significant covariates were treatment mode, therapist discipline, and age of the client ( $p < .05$ ). Clients who were treated with talking therapy plus medication had a greater number of sessions with their primary therapist than clients treated with talking therapy alone. Psychiatric nurses had the greatest number of sessions with clients followed by social workers and psychologists; psychiatrists had the least number of sessions with clients. Finally, clients who were older had more sessions with their primary therapist than those who were younger.

**TABLE 3**  
**Multiplicative Effect of Ethnicity and Language Match on the Number of Sessions**  
**(N=427)**

Primary Language	Ethnicity* Match	Language Match	N	Effect	p Value
Vietnamese	No	No	43	1.00	(baseline)
Vietnamese	No	Yes, Vietnamese	54	4.69	<.0001
Vietnamese	Yes	Yes, Vietnamese	139	2.72	<.0001
Vietnamese	No	Yes, English	81	1.48	.09
Cambodian	No	No	31	1.00	(baseline)**
Cambodian	No	Yes, Cambodian	41	4.08	.0004
Cambodian	Yes	Yes, Cambodian	38	2.36	.02

\* Ethnicity match: client primary language = therapist ethnicity.

\*\* Cambodian baseline is 2.71 times ( $p = .002$ ) the Vietnamese baseline.

### Dropout

The same censoring situation described for the previous outcome variable (number of sessions with primary therapist) also existed for dropout. That is, for therapy episodes that were ongoing, it was not possible to know whether the client would drop out of therapy or not.

Since the dependent variable 'dropout' was dichotomous, the logistic regression model was used for analysis with the log odds (probability of dropout/probability of non-dropout) as the dependent variable (Breslow & Day, 1980). Two separate analyses were performed: one using only the completed episodes, and the other assuming the not-yet-discharged episodes as non-dropouts. This was considered a reasonable assumption since, as noted earlier, a substantial portion of the not-yet-discharged episodes involved long, psychotic episodes. The results of the two analyses were not qualitatively different.

**TABLE 4**  
**Multiplicative Effect of Ethnicity and Language Match on Dropout (N=427)**

Primary Language	Ethnicity Match	Language Match	N	Effect	p Value
Vietnamese	No	No	43	1.00	(baseline)
Vietnamese	No	Yes, Vietnamese	54	1.66	.52
Vietnamese	Yes	Yes, Vietnamese	139	2.17	.28
Vietnamese	No	Yes, English	81	1.62	.53
Cambodian	No	No	31	1.00	(baseline)*
Cambodian	No	Yes, Cambodian	41	7.37	.05
Cambodian	Yes	Yes, Cambodian	38	1.88	.48

\* The Cambodian baseline is not significantly different from the Vietnamese baseline.

Results using all episodes are presented in Table 4. The only statistically significant effects ( $p = .05$ ) occurred for Cambodian clients when there was a Cambodian language match (line 6) between client and therapist. The odds of dropping out actually increased by 7.37 fold over the baseline when there was a client-therapist language match. However, it should be noted that the 95% confidence interval for this effect was (1.02, 53.29) indicating the extent of uncertainty on this estimate. The effect of both language and ethnicity match was not significant for Cambodians. Neither client-therapist language nor ethnicity match affected dropout for Vietnamese clients. The lack of statistical significance could be due to the larger sample sizes required for dichotomous outcome variables.

Of the covariates examined, client gender, client-therapist gender match, therapist discipline and treatment mode did not have a significant effect on dropout. The significant covariates were admission GAS score and number of sessions with primary therapist ( $p < .05$ ). Clients with higher admission GAS scores dropped out more often than those with lower scores and clients with a greater number of sessions with their primary therapist dropped out less than those with fewer sessions. Covariates of borderline significance ( $.05 < p < .10$ ) were age, education and diagnosis. Older clients dropped out of therapy less often than younger clients; those with more education dropped out more than those with less education; and those with anxiety disorders dropped out more than those with other diagnoses.

#### **Difference between admission and discharge GAS score**

Standard multiple linear regression was used to analyze the effect of the match variables and the covariates on the difference between the admission and the discharge Global Assessment Scale scores. Only completed client episodes ( $N=273$ ) were included in the analysis. Over half (55%) of the client episodes had no change between discharge and admission GAS scores; 9% had a decrease in scores and 36% had a gain in scores (See Table 2). Of the 36% who showed a gain, three-quarters of these had a gain of between only 1 and 10 points. Therefore, this variable

was not expected to be a sensitive indicator of treatment outcome. The results of the linear regression are presented in Table 5. The effects are additive as opposed to the multiplicative effects seen in the previous analyses.

**TABLE 5**  
**Additive Effect of Ethnicity and Language Match on the Difference in GAS Scores**  
**(N=273)**

Primary Language	Ethnicity Match	Language Match	N	Effect	p Value
Vietnamese	No	No	36	0	
Vietnamese	No	Yes, Vietnamese	28	2.5	
Vietnamese	Yes	Yes, Vietnamese	91	0.4	
Vietnamese	No	Yes, English	68	1.3	
Cambodian	No	No	22	0	(baseline)
Cambodian	No	Yes, Cambodian	17	4.6	.33
Cambodian	Yes	Yes, Cambodian	11	5.9	.21

\* No significant different between the 2 baselines.

Neither ethnicity nor language match was significantly related to GAS score gain for either Vietnamese or Cambodian clients. Among the covariates, the largest significant effect occurred with treatment mode. The GAS score gain of clients treated with talking therapy plus medication was 3.6 more than those treated without medication ( $p = .004$ ). Both number of sessions with primary therapist and admission GAS score had a negative effect on GAS score gain. For every increase of 10 sessions with the primary therapist, the effect was a decrease of 2.7 in the GAS score gain; and for every increase of 10 points in the admission GAS score, the effect was a decrease of 1.1 in the GAS score gain. Of the other covariates examined: age, dropout status, client gender, client-therapist gender match, therapist discipline, education and diagnosis, none had a significant effect on GAS score gain.

## DISCUSSION

Therapist-client language and ethnicity match had what was considered a beneficial effect on only one of the three outcome variables studied: number of sessions with primary therapist. The effect of a therapist-client language match was to significantly increase the number of therapy sessions for both Vietnamese and Cambodian clients. This finding was expected and in agreement with suggestions in the literature of the benefits of shared language between client and therapist. However, with both a language and ethnicity match, the effect on the number of sessions although still significant was actually less for both ethnic groups. Dropout from therapy

was affected also by a language match between the Cambodian therapists and clients but the effect was to increase dropout, considered a negative effect on outcome. These latter findings were unexpected and the opposite of those suggested in the literature. Shared language and ethnicity between therapist and client was expected to enhance the therapy process and to increase understanding between client and therapist because of shared identity and values. These benefits were expected to be evident in an increase in the number of sessions with the primary therapist and in a decrease in dropout from therapy.

Several possible explanations for these results were suggested by clinicians and investigators working with Southeast Asian clients in the Los Angeles County mental health system. It should be noted, however, that none of these explanations can be verified for the present study.

The study is limited by its retrospective design and the fact that the data were collected more for clinical than for research purposes. The generalizability of the results needs to be verified by other studies. In particular the covariate effects should be viewed with caution as they may reflect the nature of the County's policies/practices and the structure of its patient population. The outcome effects could also be influenced by these conditions although to a much lesser degree. On the other hand, generalizability is enhanced by the relatively large sample size and data collected over several years. Several highly statistically significant relationships suggest trends in the data that should be given consideration clinically.

Many of the clinicians working with Southeast Asian clients suggested that the phenomenon of catharsis and client diagnosis are important variables affecting both dropout and the number of sessions with the primary therapist. According to this explanation, when the therapist shares the same language as the client, this has the effect of encouraging a catharsis by the client in the first session. For many clients, and especially those with acute anxiety disorders, this catharsis dramatically decreases anxiety and provides symptom relief for the client. Clinicians suggested that clients drop out of therapy because they experience symptom relief. Conversely, clients with psychotic disorders do not experience symptom relief from catharsis alone and do not drop out of therapy. They, therefore, have more sessions with their primary therapist as a result of sharing language with the therapist.

Clinicians and researchers suggested that cultural values take on importance when clients and therapist share both ethnicity and language. Mental illness is highly stigmatized in Vietnamese and Cambodian cultures. Often it is considered hereditary and a source of shame to families of mentally ill persons. Despite their professional training, Vietnamese and Cambodian therapists may share this cultural attitude toward mental illness and communicate disapproval of the client's behaviour to the client and family. Or the client and family might experience shame related to the client's behaviour with a therapist of the same ethnicity because of what they believe is the shared cultural attitude toward mental illness. In either case, the cultural values that come into play when both ethnicity and language are shared could be an explanation for the lesser effect of this variable on the number of sessions with the primary therapist. According to this explanation, when only language is shared, and cultural values do not enter in, the therapy process is facilitated. In the case where mental illness is culturally stigmatized, cultural values imposed on the therapy process have the effect of inhibiting it.

As noted earlier none of the explanations offered here can be verified. They should be given further consideration in future investigations of mental health treatment for Southeast Asian clients. Given the number of mental health problems experienced by the Southeast Asian refugees, it

is important that the characteristics of effective treatment be identified. This includes the role that cultural values play in treatment.

In addition to conceptual explanations, several methodological issues need to be considered that might have had an influence on the findings of this study. Questions can be raised about the outcome measures used to determine the effects of therapist and client language and ethnicity on the therapy situation. For example, should an increasing number of sessions with the primary therapist be considered a positive outcome? Or should a large number of sessions be equated with lack of improvement? How should dropout from therapy be determined and measured? Should it be therapist determined, client determined, or investigator determined? Is change in the GAS score a sensitive, valid, and reliable measure of client improvement?

These questions have implications for further research. One suggestion is that investigators come to some agreement on the use of common outcome measures to evaluate the effectiveness of therapy. Comparison of study results would be facilitated by such an endeavour. Secondly, it would be extremely useful to decide on standard definitions for outcome variables such as dropout or utilization. Furthermore, additional information is needed on whether GAS scores should continue to be used as outcome measures. Clinicians and researchers could make a meaningful contribution to the mental health disciplines by coming together and making decisions on these methodological issues. Finally, it is recommended that other investigators consider the use of large data sets in their studies. Several large data sets similar to the one used in this study are in existence. Although their primary purpose is often for billing, auditing, and management, the use of such a data set in this study suggests that they can also be used meaningfully in research.

#### ACKNOWLEDGEMENTS

This study was supported in part by a grant from the National Institute of Mental Health # MH 44331, and the National Research Center on Asian American Mental Health, UCLA

#### REFERENCES

- BEISER, M., TURNER, R.J. & GANESAN, S. (1989) Catastrophic stress and factors affecting its consequences among Southeast Asian refugees. *Social Science and Medicine*, **28**, 183-195.
- BOEHNLEIN, J.K. (1987) Clinical relevance of grief and mourning among Cambodian refugees. *Social Science and Medicine*, **25**, 765-772.
- BOMAN, B. & EDWARDS, M. (1984) The Indochinese refugee: An overview. *Australia—New Zealand Journal of Psychiatry*, **18**, 40-52.
- BRESLOW, N.E. & DAY, N.E. (1980) *Statistical Methods in Cancer Research*. Lyon, France: International Agency for Research on Cancer, 192-247.
- COYELL, W., LOWRY, M. & WASEK, P. (1978) Diagnostic instability and depression. *American Journal of Psychiatry*, **137**, 48-51.
- ENDICOTT, J., SPITZER, R.L., FLEISS, J.L. *et al.* (1979) The global assessment scale: A procedure for measuring overall severity of psychiatric disturbance. *Archives of General Psychiatry*, **33**, 766-771.
- FLASKERUD, J.H. & ANH, N.T. (1988) Mental health needs of Vietnamese refugees. *Hospital & Community Psychiatry*, **39**, 435-437.

- FLASKERUD, J.H. & LIU, P.Y. Effects of an Asian client-therapist language, ethnicity and gender match on client outcomes. *Community Mental Health Journal*, under review.
- FOX, R. (1984) The Indochinese: Strategies for health survival. *International Journal of Social Psychiatry*, **30**, 285-291.
- HONDIUS, A.J. & VAN WILLIGEN, L.H. (1989) Baseline health care for refugees in the Netherlands. *Social Science & Medicine*, **28**, 729-733.
- KAM, K. (1989) A false and shattered peace. *California Tomorrow*, **4**, 8-21.
- KINZIE, J.D., FREDRICKSON, R.H., BEN, R., *et al.* (1984) Posttraumatic stress disorder among survivors of Cambodian concentration camps. *American Journal of Psychiatry*, **141**, 645-650.
- LEONG, F.T. (1986). Counseling and psychotherapy with Asian-Americans: Review of the literature. *Journal of Counseling Psychology*, **33**, 196-206.
- MOLLICA, R.F., WYSHAK, G., DE MARNEFFE, D., *et al.* (1987) Indochinese versions of the Hopkins Symptom Checklist-25: A screening instrument for the psychiatric care of refugees. *American Journal of Psychiatry*, **144**, 487-500.
- SAS USER'S GUIDE: *Statistics*. (1985) Version 5 Edition, Cary, NC: SAS Institute Inc., 507-528.
- WESTERMEYER, J. (1986) Two self-rating scales for depression in Hmong refugees: Assessment in clinical and nonclinical samples. *Journal of Psychiatric Research*, **20**, 103-113.
- WU, I.H. & WINDLE, C. (1980) Ethnic specificity in the relative minority use and staffing of community mental health centers. *Community Mental Health Journal*, **16**, 156-168.

---

Jacquelyn H. Flaskerud, PhD, FAAN, Professor, School of Nursing, UCLA, 10833 Le Conte Ave, Los Angeles, CA 90024-1702, USA.

P.Y. Liu\*, Statistician, Southwest Oncology Group — Statistical Center, Fred Hutchinson Cancer Research Center, Seattle, WA 98104-2092, USA.

\* At the time the study was conducted, Dr. Liu was employed with the National Research Center on Asian American Mental Health, UCLA.

Correspondence to Dr. Flaskerud.