THE FAMILIES OF U.S. NAVY PRISONERS OF WAR FROM VIETNAM FIVE YEARS AFTER REUNION

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The Families of U.S. Navy Prisoners of War from Vietnam Five Years after Reunion*

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Marital stability and perceptions of marital adjustment and family environment were investigated among Navy prisoners of war repatriated from Vietnam (RPWs) and a Navy comparison group. Study I indicated that the post-repatriation divorce rate among the RPW group was significantly higher than for the comparison group. Predictors of divorce among RPW families included smaller number of children, longer captivity duration, and religious affiliation. Study II yielded no significant differences when perceptions of marital adjustment and family environment were compared between a subset of RPW and comparison families who remained intact. A structure-oriented family profile was found for both groups which indicated a possible general family system adaptation to military life.

For more than a decade, the health and well-being of the American prisoners of war (POWs) from Southeast Asia and their families have been matters of deep personal concern to millions of Americans. Studies of family adjustment during World War II (Boulding, 1950; Hill, 1949) and Vietnam (Bey and Lange, 1974; Cretekos, 1971) found that both the departure and the return of the serviceman represented a crisis or potential crisis situation. While family reintegration difficulties might be expected following any period of war-induced family separation, the POWs of the Vietnam era were expected to face special problems because of the extent of the separation period (70 percent of the men were held captive for periods of four to nine years, [Ballard, 1973]), the family stresses and problems which emerged during separation (Hall and Simmons, 1973), and the vast social and technological changes effected throughout the Vietnam era (Segal, 1973). These factors prompted Segal (1973) to advocate a gradual and buffered program of societal and family reintegration.

In anticipation of family reintegration difficulties, social service outreach and family research initiatives were included in the comprehensive, longitudinal health care follow-up of the returning POWs (Plag, 1974). Prior to the return of the POWs, McCubbin *et al.*, (1975b) interviewed families of men who were POWs or missing in action and reported changes in family

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systems, modifications in wives' personalities and expectations for marriage, and alternations in family life styles. Previously, such changes had been found to interfere with the process of family reintegration (Hill, 1949; Baker *et al.*, 1968) and they signaled the need for continued family follow-up.

Expectations that family reintegration would require substantial adjustment appeared to be borne out as McCubbin *et al.* (1975a) found that approximately one year after repatriation, the process of reestablishing marriages and family structure involved extensive renegotiations between marital partners. The best predictors of the 12 to 16 month follow-up criterion of family reintegration were (1) length of marriage before casualty, (2) wife's retrospective assessment of the quality of marriage before casualty, and (3) wife's emotional adjustment during the separation period. Each of these predictors was positively correlated with the criterion.

Although the separation and reunion experience was highly stressful and often required major adjustments for the families of the repatriated POWs (RPWs), the long-term effects of the captivity experience on family functioning remain unexplored. Long-term effects of captivity have both theoretical implications, regarding adjustment to prolonged family separation, and applied implications, regarding the nature and supportiveness of the post-captivity social environment. The present study investigated the marital stability, marital adjustment, and family environment of the families of Navy RPWs and a matched control group five years after reunion.

Two separate but related investigations are included in the present report. In Study I, the incidence of divorce was investigated for all Navy RPWs and a Navy comparison group. Background factors associated with the occurrence of divorce among the RPWs were explored through correlation and regression techniques.

Study II assessed the marital adjustment and family environments of a subset of RPW and control couples who remained married. This study was conducted in order to explore any differences in family functioning which might be attributed to the prolonged captivity-related separation.

STUDY I

Subjects

Between February and April of 1973, a total of 138 Naval aviators held captive in North Vietnam were repatriated and returned to the continental United States. All of these men were officers and 71 percent were college graduates. Upon repatriation, this group was invited to participate in a longitudinal and systematic program of health care follow-up (Plag, 1974).

In early 1975, procedures were initiated to select a matched comparison group of 138 Naval aviators to participate in the ongoing medical follow-up of the RPWs. The Navy RPWs and the comparison group members were matched using the following variables: (1) the comparison group member was flying missions in Vietnam within one year of the RPW's capture, (2) age, (3) year of commissioning, (4) job designation—pilot or bombardier/navigator, (5) education, (6) marital status, (7) rank, (8) total number of flight hours, and (9) type of aircraft flown in Vietnam (Spaulding *et al.*, 1978). Within these groups, a total of 101 RPWs and 100 comparison group members were married at the time of their tour in Vietnam. At the time of the RPWs' casualties, the men in both groups were approximately 32 years of age, averaged about 16 years of education, had typically obtained the rank of Lieutenant Commander, and had been married for an average of eight years. Although there was a slightly higher proportion of Catholics in the RPW group (28 percent) than in the comparison group (18 percent), the two groups did not differ significantly on any of the demographic variables. All members of both groups who were married at the time of their tour in Vietnam were included in the assessment of marital stability.

Measures

Marital stability. The incidence of divorce during the five years following repatriation was used as the criterion of marital stability. Background characteristics such as age, rank, education, and age at marriage have been shown to be related to marital stability (Glick and Norton, 1977) and were included in this study as potential predictor variables of marital stability among the RPW families.

TABLE 1. ANNUAL NUMBER OF DIVORCES IN THE RPW AND COMPARISON GROUPS

	Number Married at Time of Casualty	1973	1974	1975	1976	1977	1978	Total
RPW	101	16	6	1	5	2	1	31
Comparison	100	6	1	2	1	3	0	13

Religion, length of marriage, number of children, and length of captivity were also included as potential predictors of marital stability. The assessment of marital stability and background characteristics of the RPW and control families involved analyses of existing records and required no active data collection.

Results of Study I

Marital stability, as measured by the annual incidence of divorce, is shown in Table 1. The overall incidence of divorce among the RPW families was significantly higher than among the comparison families [x^2 (1) = 8.20, $p < .01$].[1]

In order to derive a composite of variables to identify those RPW families who have a higher probability of divorce following the capitivity-induced separation, eight background variables conceptually related to marital stability were entered into a Pearson product-moment correlation matrix with the criterion measure of divorce (Table 2). This procedure permitted the elimination of those variables which did not obtain a statistically significant relationship with the criterion. Three of the original eight predictor variables demonstrated a significant relationship with the criterion measure and were entered into a stepwise multiple regression analysis.[2] These variables were: number of children, religion (Catholic/Non-Catholic), and length of captivity. A regression equation was derived which yielded a significant multiple R of .39 [F (3,96) = 5.94, $p < .001$]. These results will be discussed in conjunction with the results of Study II.

[1]The correction for continuity was used in the computation of the x^2 statistic.

[2]The limited amount of criterion variance in the comparison families precluded the development of a regression equation in this group.

STUDY II

Subjects

A subset of 29 RPW families and 38 comparison families participated in a more extensive follow-up assessment of marital adjustment and family environment. The three criteria for participation in this follow-up were: (1) that the family had been interviewed at least once during an annual family follow-up initiated in 1972 (McCubbin *et al.*, 1975b), (2) that the couple was married prior to the husband's tour in Vietnam, and (3) that the marriage remained intact at the time of this study. A comparison of this subset of RPW and comparison group members indicated that at the time of the RPWs' casualties, the men in both groups averaged 33 years of age, had typically obtained the rank of Commander, had completed 16 years of education, and had been married for an average of nine years. The two groups did not differ significantly on any of these demographic variables. There was, however, a significantly larger proportion of Catholics in the RPW group than in the comparison group [x^2 (1) = 4.26, $p < .05$].

Measures

Marital adjustment. The 32-item Dyadic Adjustment Scale (Spanier, 1976) was used to assess the marital adjustment of the husbands and wives in each group. The scale is composed of four empirically derived subscales which assess dyadic consensus, affectional expression, dyadic satisfaction, and dyadic cohesion. The internal consistency estimates (coefficient *alpha*) of the scales range from .73 to .96. Other psychometric properties of this scale are presented in the literature (Spanier, 1976).

Family environment. Family environment was measured by the Family Environment Scale, Form R (Moos, 1974). The 10 subscales of this 90-item questionnaire are clus-

TABLE 2. ZERO ORDER CORRELATIONS OF BACKGROUND PREDICTORS AND DIVORCE CRITERION AMONG RPWS (N = 101)

	(y_1)	(x_1)	(x_2)	(x_3)	(x_4)	(x_5)	(x_6)	(x_7)	(x_8)
Marital Status (Divorced = 1; Married = 0)[a] (y_1)	—	—	—	—	—	—	—	—	—
Age Husband at Time of Casualty (x_1)	-.11	—	—	—	—	—	—	—	—
Pay Grade at Time of Casualty (x_2)	.02	.90**	—	—	—	—	—	—	—
Husband Education at Time of Casualty (x_3)	.16	.18	.17	—	—	—	—	—	—
Number of Children (x_4)	-.29**	.56**	.50**	-.02	—	—	—	—	—
Husband Age at Marriage (x_5)	.09	.18	-.16	.16	.10	—	—	—	—
Religion (Catholic = 1; Non-Catholic = 0) (x_6)	-.23*	.07	-.13	-.02	.19*	.09	—	—	—
Length Marriage at Time of Casualty (x_7)	-.14	.80**	.72**	.11	.66**	.00	-.15	—	—
Length of Captivity (x_8)	.18*	.10	.03	.11	.09	-.17	.00	.06	—

[a]One-tailed test was used to derive significant levels between the predictors and the criterion.
*$p < .05$.
**$p < .01$.

tered into three major dimensions: (1) *relationship*—cohesion, expressiveness, conflict; (2) *personal growth*—independence, achievement orientation, intellectual-cultural orientation, active recreational orientation, moral-religious emphasis; and (3) *system maintenance*—control and organization. The internal consistency estimates (coefficient *alpha*) of the scales ranged from .64 to .79. Further psychometric information is presented elsewhere (Moos, 1974).

In addition to the psychometric information presented in the Family Environment Scale Manual (Moos, 1974), Moos and Moos (1976), using cluster analysis on the normative Family Environment Scale data, developed a number of empirically derived typologies of the social environments of families. Six distinctive clusters of families were identified in this research: expression-oriented, structure-oriented, independence-oriented, achievement-oriented, moral/religious-oriented, and conflict-oriented. Each typology was graphically represented on a normative standard score profile and related to various background characteristics.

Procedure

The Dyadic Adjustment and Family Environment Scales were included in a larger research protocol which was administered to the members of the RPW and comparison groups during a series of home interviews conducted between March and December, 1978. The interviews were distributed among a staff of two civilian psychologists, a civilian social worker, and an Army social worker. Because of the length of the assessment protocol and the occasional absence of a family member from the interview, questionnaires were sometimes left with the families to be completed and returned at a later date. On those occasions when questionnaires were left, separate return envelopes were provided and each participant agreed to respond independently.

Results of Study II

For each of the four subscales of the Dyadic Adjustment Scale and each of the ten subscales of the Family Environment Scale, *t*-tests for independent samples were computed between RPW and comparison fami-

TABLE 3. ANALYSIS OF RPW AND COMPARISON FAMILY GROUPS ON THE SUBSCALES OF THE DYADIC ADJUSTMENT SCALE

	RPW (N = 52)[a]		Control (N = 76)[b]			
	Mean	S.D.	Mean	S.D.	$t(df = 126)$	p
Dyadic Consensus	50.98	7.06	51.57	12.75	-.30	n.s.
Affective Expression	9.27	2.18	9.26	5.08	.01	n.s.
Dyadic Satisfaction	39.83	6.41	38.33	7.67	1.16	n.s.
Dyadic Cohesion	15.47	4.48	15.24	6.21	.22	n.s.

[a]The RPW sample is represented by 23 couples with complete data and six individuals whose respective spouses had incomplete data. The group statistic represents the sum of all individual husband and wife scores.
[b]For the comparison group all 38 couples had complete data.

TABLE 4. ANALYSIS OF RPW AND COMPARISON FAMILY GROUPS ON THE SUBSCALES OF THE FAMILY ENVIRONMENT SCALE

	RPW (N = 47)[a]		Control (N = 71)[b]			
	Mean	S.D.	Mean	S.D.	$t(df = 116)$	p
Cohesion	6.91	2.27	6.99	2.21	-.17	n.s.
Expressiveness	5.62	2.14	5.85	2.29	-.56	n.s.
Conflict	2.94	2.02	2.48	2.03	1.20	n.s.
Independence	7.00	1.14	6.80	1.51	.76	n.s.
Achievement Orientation	5.53	1.86	6.08	1.83	-1.59	n.s.
Intellectual-Cultural Orientation	5.47	1.95	5.62	2.38	-.37	n.s.
Active-Recreational	5.74	2.05	5.63	2.11	.30	n.s.
Moral-Religious	6.38	2.16	5.98	2.39	.94	n.s.
Organization	6.19	2.07	6.08	2.18	.27	n.s.
Control	5.87	2.03	5.32	2.15	1.39	n.s.

[a]The RPW sample is represented by 19 couples with complete data and nine individuals whose respective spouses had incomplete data. The group statistic represents the sum of all individual husband and wife scores.
[b]The comparison sample is represented by 34 couples with complete data and three individuals whose respective spouses had incomplete data.

lies.[3] The critical level of α was set at .01 to correct for the experimentwise error rate introduced by the number of comparisons (Harris, 1975). As shown in Tables 3 and 4, no significant differences were found between these groups on any of the subscales of either the Dyadic Adjustment Scale or the Family Environment Scale. The absence of significant differences between the RPW and comparison families indicated that the stresses of captivity-related family separation had not significantly affected the long-term adjustment or patterns of interaction of the intact RPW families.

Although the family environments of the intact RPW and comparison families did not differ significantly, the availability of normative data (Moos, 1974) suggested an interesting comparison between these Naval aviator families and the broader constituency of families sampled in the development of the scale norms. A normative standard score profile of the RPW and comparison families generally resembled the structure-oriented family typology discussed by Moos and Moos (1976). Both the RPW and comparison families who participated in the present investigation and the structure-oriented families discussed by Moos and Moos (1976) exhibited relatively high standard scores on cohesion, moral-religious emphasis, and organization and relatively low standard scores on conflict.[4]

[3]In this sample the pattern of intercorrelations of the 10 subscales of the Family Environment Scale roughly paralleled the pattern presented by Moos (1974). The intercorrelations of the four subscales of the Dyadic Adjustment Scale ranged from .68 to .85.

[4]Complete standard score profiles of the RPW, comparison, and structure-oriented families are available from the author upon request.

DISCUSSION

As the POWs of the Vietnam Era were repatriated and returned home after the war, the process of reestablishing their marriages and family structure involved substantial renegotiations between marital partners (McCubbin *et al.*, 1975a). While the large majority of the marriages (70 percent) survived this process, a significant number did not. McCubbin and his colleagues reported that during the first year following repatriation, the wives were in control of the reintegration process. Some wives had determined before their husbands' return that they had no recourse but to terminate their marriages and begin new lives for themselves (McCubbin *et al.*, 1975a). This observation is indirectly supported by the fact that 52 percent of all post-captivity divorces among RPWs occurred within the first year following repatriation (Table 1).

The results of the present investigation indicated that the best background predictors of divorce among the RPWs were number of children, length of captivity, and religion. Those couples who had been separated for longer periods of time, had few or no children, and were non-Catholic were most at risk for divorce. The prolonged and indeterminate absence of the husband/father during the POW situation encouraged families to develop behaviors which may have actually lessened the probability of a successful post-reunion adjustment (McCubbin *et al.*, 1975a). Increases in the maturity, independence, and self-confidence of the waiting wives oftentimes interfered with the reintegration process. The presence of the children, on the other hand, may have signified a stronger commitment to family life and thus have reduced the probability of divorce. Likewise, membership in the Catholic Church was a factor in reducing the probability of divorce. Religious beliefs have previously been found to play an important role in the family's ability to manage stress, particularly in the more severe stress situations (McCubbin, 1979).

Among the RPW and comparison families who remained intact over the five years after repatriation, analyses were conducted to identify any residual or long-term effects of the POW experience on family functioning. These analyses revealed no significant differences between the RPW and comparison families on any of the various aspects of marital adjustment or family environment. Although the family separation and reintegration experienced by the RPW families represented a prolonged period of stress and adaptation, long-term residual effects of this experience were not evident among the couples who remained together. It appears that separation-related difficulties which did not result in a dissolution of the marriage had been successfully resolved by the fifth year following repatriation.

The Family Environment Scale profile of the RPW and comparison families who remained intact closely paralleled the structure-oriented family typology derived by Moos and Moos (1976). According to these authors, structure-oriented families typically show a strong emphasis on structuring family activities and on explicitness and clarity with regard to family rules and responsibilities. In addition, family members are strongly committed to the family and consider themselves, in general, to be mutually helpful and supportive (Moos & Moos, 1976). Such emphasis on structured activities, role clarity, and intrafamily support may represent an adaptation of the family system in order to stabilize the effects of disruptions, such as family separation and geographic mobility, which are inherent in Navy life. This hypothesis is consistent with a dynamic model of family stress proposed by McCubbin (1979). Building on the work of Hill and Hansen (1962), Burr (1973), and others, McCubbin postulated that family adaptation to stress involved a complementary relationship between the reactive management of stress-reducing resources within the family unit and the active processes of coping and adaptation. McCubbin hypothesized that "families manage their internal affairs to maximize the flow of energy into the employment of coping behaviors effective in diverting, reducing, or possibly removing the sources of stress" (McCubbin, 1979:238). While specific coping behaviors were not assessed in the present investigation, we believe that the structure-oriented pattern of conflict inhibition and moral-religious emphasis may facilitate the rapid mobilization of coping resources and thereby reduce family vulnerability to stress and enhance recovery. Although the results of this small, select

subsample of Naval aviators should not be generalized, more extensive investigations of the social environments of military families may prove valuable in understanding the processes of family adaptation to military life, the health and health care utilization implications of the military family as a social support, and the potential effectiveness of various family support programs.

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