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Payne, Karen Sue

SOCIAL SUPPORT AND POST-TRAUMATIC STRESS SYMPTOMATOLOGY IN VIETNAM VETERANS

The Ohio State University

Ph.D. 1985

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SOCIAL SUPPORT AND POST-TRAUMATIC STRESS
SYMPTOMATOLOGY IN VIETNAM VETERANS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Karen S. Payne, B.A., M.A.

* * * * * *

The Ohio State University
1984

Reading Committee:
Harold B. Pepinsky, Ph.D., Adviser
Pamela J. Highlen, Ph.D.
W. Bruce Walsh, Ph.D.

Approved By

[Signature]
Adviser
Department of Psychology
ACKNOWLEDGEMENTS

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VITA

December 3, 1954 ................... Born - Rochester, New York

1977 ................................ B.A., Boston College, Chestnut Hill, Massachusetts

1977 - 1979 .......................... Child Care Worker, New England Home for Little Wanderers, Boston, Massachusetts

1980 - 1981 .......................... Graduate Associate, Office of Residence and Dining Halls, The Ohio State University, Columbus, Ohio

1981 - 1982 .......................... Graduate Associate, Counseling and Consultation Services, The Ohio State University, Columbus, Ohio

1982 ............................... M.A., The Ohio State University, Columbus, Ohio

1982 - 1983 .......................... Graduate Teaching Associate, Department of Psychology, The Ohio State University, Columbus, Ohio

1983 - 1984 .......................... Psychology Intern, Veterans Administration Medical Center, Sepulveda, California

FIELDS OF STUDY

Major Field: Counseling Psychology

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Social support is a concept that has recently been receiving considerable attention by several groups of researchers, including sociologists, psychologists, psychiatrists and epidemiologists. The concept was discussed primarily within the context of sociological theory until the beginning of the community mental health movement in the 1960s, when closer examination of the potential effects of treatment within our environment was encouraged (Gottlieb, 1983). Since that time, intensified efforts to define and operationalize social support have increased substantially. Epidemiologists have accumulated considerable evidence suggesting that social support may be an effective mediator of acute life stress on physical and emotional symptomatology or that it may be important for well-being independent of stress level (Cobb, 1976, 1982; Dean & Lin, 1977; Porritt, 1979). Further, there has been laboratory research, field experiments, non-experimental research, and comparative animal studies which validate the hypothesis that when under stress or anxiety the presence and support of others can moderate the negative effects of stress or anxiety.

A central problem in the study of social support has been the lack of clarity in definition of the construct. Researchers have adopted various definitions to suit their own theoretical and empirical
frameworks (Caplan, 1974; Cobb, 1976; Kahn & Quinn, cited by Heller, 1979; Lin, Simeone, Ensel & Kuo, 1979; Pilisuk & Parks, 1980). Lack of agreement on a definition of social support has prevented comparison of research results, which Lieberman (1982) suggests is most unfortunate. Lack of precise definition may well explain why researchers have developed numerous instruments to measure social support, all of which have had limited use and psychometric validation (Thoits, 1982; Procidano & Heller, 1983). Two major researchers in that area, Dean & Lin (1977), asserted that "Social support is considered to be the most important concept for future study and it also presents the most difficult task for instrumentation and study" (p. 408). It has been common practice for researchers to develop their own instrument to study social support independently (Barrera, 1981; Sandler, & Ramsay, 1981; Bell, Leroy & Stephens, 1982; Dean & Lin, 1977; Hirsch, 1980; Holahan & Moos, 1981; Porritt, 1979; Sandler & Lakey, 1982; Sarason, 1981).

Another shortcoming among researchers has been the conceptualization of social support as a unitary construct. Thoits (1982) noted the failure on the part of many researchers to operationalize and conceptualize social support within a multi-dimensional framework. Wallston, Alagna, DeVallis & DeVallis (1983) suggest that more complex models, in which social support is conceptualized as a multi-dimensional construct should be the basis for future research in this area.

In an attempt to address the issue of inadequate instrumentation, Morgan (1982) developed a multi-dimensional instrument, The Multiple Scales of Social Support (MSSS) to assess the construct in a more
comprehensive manner. She found five factors to be salient in the perception of social support: (a) emotional resources, (b) esteem resources, (c) assistance resources, (d) affiliative style, and (e) satisfaction. The MSSS has been shown to have sufficient psychometric validation to warrant further use of the instrument. Continued attempts to establish validity and reliability of the instrument are needed at this point. Morgan (1982) suggests that further exploration using other personality measures to validate the instrument and sampling more homogeneous groups would be helpful. The development of this instrument in conjunction with continued research on establishing its psychometric properties offer great potential for unifying both the definition and operationalization of the construct of social support.

The numerous attempts made by researchers to explore the relationship between social support and stress have had one common focus. The studies have all considered acute life stress as the variable under study (Barrera, et al., 1981; Bell, et al., 1982; Cobb, 1976; Dean & Lin, 1977; Lin, et al., 1979; Porritt, 1979; Sandler & Lakey, 1982; Wilcox, 1981). One of the prominent researchers in the social support field, Sidney Cobb (1976), suggested that the effects of social support on chronic stress and symptomatology be explored. The only research in this area to date has been with survivors of the Holocaust (Davidson, 1979). Preliminary findings from this study suggest that social support may be critical in the management of chronic stress conditions. Attempts to study chronic stress with a more extensive subject population would enhance our understanding of the relationship
between social support and chronic stress.

Vietnam veterans are one group of individuals identified by mental health professionals as being at high risk for developing disorders associated with chronic stress. Approximately three million Americans served in Indochina between the years of 1964 and 1975. It has been estimated that as many as 750,000 to 1.5 million Vietnam veterans are currently experiencing moderate to severe adjustment problems attributed to their Vietnam military experiences (Blank, 1982; Figley, 1978b; Langley, 1982; Walker, 1981). These problems in adjustment may reflect either delayed or chronic forms of post-traumatic stress disorder.

There have been several factors associated with the development of post-traumatic stress disorder in Vietnam veterans, one of which is the experience of returning home to find limited social support for their actions from friends, family, or the American society in general (Berkowitz, 1980; Camacho, 1980; Figley, 1978a; Figley & Leventman, 1980; Goodwin, 1980; Horowitz & Solomon, 1978; Keane & Fairbank, 1983; Leventman, 1978; Walker & Cavenar, 1982; Williams, 1980; Kolb, 1984). It has been suggested that veterans of Vietnam have had to struggle alone, without societal support, to integrate their combat experiences (Haley, 1978). Veterans returned home from Vietnam to find themselves alienated from an older generation and also from their peers, who were often opposed to the war (Figley & Leventman, 1980). Consequently, Vietnam veterans had no recourse other than finding support among themselves. Figley & Leventman (1980) describe the lack of social support received by Vietnam veterans in their statement "If, as Emile
Durkheim (1951) pointed out, coherent and cohesive group support can allow an individual to withstand much social stress and tension, such support was precisely what Vietnam veterans lacked" (p. xxvi).

As a result of the alienation felt from other Americans, many Vietnam veterans slowly began isolating themselves from others and withdrawing into a world separated from others. One of the identifying symptoms of post-traumatic stress disorder, as defined in the Diagnostic and Statistical Manual of Mental Diseases (American Psychiatric Association, 1980) is a numbing of responsiveness to or involvement with the external world, as shown by: (a) decreased interest in activities enjoyed before Vietnam, (b) feelings of detachment from others or avoiding contact with people, or (c) marked difficulty in feeling and/or expressing emotions. Emotional isolation and numbing have frequently been noted as important factors in the manifestation of chronic stress conditions in Vietnam veterans (Horowitz & Solomon, 1975; Langley, 1982; Lipkin, Blank, Parson & Smith, 1982; Panzarella, Mantell, & Bridenbaugh, 1978; Shatan, 1973; Stanton & Figley, 1978; Williams, 1983).

Although emotional isolation and numbing have been identified as being present in chronic stress conditions of Vietnam veterans, very little systematic research has been done to explore this area. Roberts, Penk, Robinowitz, Dolan, Gearing & Patterson (1982) explored interpersonal difficulties associated with post-traumatic stress disorder in substance abusers and found significant differences between Vietnam veterans who were and were not experiencing a chronic stress condition. The authors suggest that further work exploring the
relationship between sociability and post-traumatic stress be undertaken. It has been suggested by Martin (1981, cited by Egendorf, 1982) and Kadushin (1981, cited by Egendorf, 1982) that chronic stress experienced by Vietnam veterans may be associated with the support the veterans receive from their immediate family or friends. Stanton & Figley (1978) further note that exploration into the interpersonal networks of Vietnam veterans would be both appropriate and helpful in understanding the stress disorders that are currently being manifested by a significant minority of veterans.

It appears that Vietnam veterans have experienced a unique history of minimal social support from the people surrounding them. This lack of support may be a factor in the etiology of chronic stress conditions. The knowledge we have of the limited support experienced by veterans of Vietnam leads one to suspect that the veterans would perceive a lack of support in many respects. There is however no research evidence either to support or refute this assumption.

Exploration and research into Vietnam veterans' perceptions of what their social support systems are seems warranted and appropriate at this time. Knowledge of the veterans' perceptions of their support systems may be helpful in developing strategies for therapists, families, friends, and community resources to use in responding to the needs of this group.

The purpose of the proposed research is three-fold:

1) To describe the social support system operating in a subsample of Vietnam veterans.
2) To provide further concurrent validation on the Multiple Scales of Social Support using a homogeneous sample (Vietnam veterans).
3) To explore the relationship between chronic stress, defined in this study as post-traumatic stress disorder, and perceived social support.
CHAPTER II

METHOD

The following sections first describe the subject group and procedural steps followed in carrying out this research. Second, the instruments used to generate descriptive data on the sample and provide validation data on the Multiple Scales of Social Support will be described. Finally, the statistical analyses selected for this study, along with the statement of the relevant hypotheses are presented.

Subjects

One-hundred male subjects were used in this study, recruited from six sources affiliated with the Veterans Administration Medical Center at Sepulveda, California: (a) two inpatient acute care psychiatric units; (b) the Outpatient Mental Health Unit; (c) two inpatient alcohol and drug abuse units; (d) the Transition Unit (houses patients who have been treated on acute psychiatric, drug, or alcohol units and prepares patients for discharge by assisting in employment and housing placement); (e) vocational counseling services; and (f) Vietnam Veterans Outreach Counseling Center, Northridge, CA. All sources, with the exception of the Veterans Outreach Center, were located at the medical center.
Staff personnel from each source were contacted by the principal investigator, informed of the project and requested to refer patients for the study meeting the following criteria: (a) veteran served at least one week active duty in Vietnam between 1964 and 1975; This criterion was included to prevent veterans who were reassigned to other locations or discharged from the military within one week of duty in Vietnam from being referred to the study, (b) veteran was not experiencing psychotic symptomatology or carrying diagnosis of thought disorder at the time of referral, and (c) veteran was judged by staff person referring to be able to participate in a clinical interview which would include questions regarding stressful experiences in Vietnam and feelings about and reactions to those events since returning home, without experiencing increased anxiety or psychiatric symptomatology. This criterion served as a measure of protection for patients who may have experienced an exacerbation of any existing psychiatric disturbance as a result of participating in the interview. Staff personnel referring patients to this study were requested to fill out a brief referral form (Appendix B) on each patient referred.

Recruitment of subjects from the Veterans Outreach Center varied from the format described above. Veterans using the Outreach Center were recruited by means of articles published in the monthly newsletter distributed by the Outreach Center (Appendix C). Veterans made phone contact with the Outreach Center and scheduled appointments to meet with the principal investigator. In addition, staff counselors at three other local Veterans Outreach Centers referred clients they were working
with to the study. Finally, the principal investigator attended several support groups run by Outreach Center counselors and recruited subjects from those groups to participate in the study.

Procedure

Each subject met individually with the principal investigator for two meetings. During the initial meeting, subjects were informed that their participation in the study would consist of filling out two psychological inventories and participating in one structured clinical interview. Subjects' questions about the study were responded to and any concerns about participating were discussed. Subjects were then shown the two consent forms necessary for participation in the project (Appendix D). The consent forms were explained and subjects were asked to sign the forms after they fully understood what their participation in the study would consist of. The final step during the initial meeting consisted of giving subjects the Jackson Personality Research Form-E and the Multiple Scales of Social Support to complete. Subjects were encouraged to complete the inventories immediately. If subjects were unable to meet this request because of time constraints, they were asked to take the inventories home with them and bring them back completed when they returned for the clinical interview. Finally, appointments were scheduled for the clinical interview and subjects were reminded of the importance of returning for the second meeting.

The second meeting began with collection of assessment materials. The clinical interview followed the format used by Hough & Gongla (Note
The structured format included an introduction, which explained the format of the interview, followed by an inquiry into traumatic events that the subject may have experienced while in Vietnam and a series of questions regarding post-traumatic stress symptomatology, as defined in the Diagnostic and Statistical Manual III (American Psychiatric Association, 1980). Positive responses to post-traumatic stress symptoms were added to arrive at a continuous measure of the subject's current level of chronic stress. At the conclusion of the interview subjects were given time to discuss their reactions to the interview and to the project. Subjects were also given the option of having a summary of findings from the study mailed to them at a later date. Finally, subjects were encouraged to share their feelings and reactions to the interview with appropriate staff personnel whom they had been working with, either at the Outreach Center or at the Veterans Administration Medical Center.

Instruments

Demographic Questionnaire. This questionnaire was developed by the principal investigator and included questions concerning the subjects' age, marital and employment status, and time spent in Vietnam. In addition to these variables, a brief scale was included on the demographic questionnaire and used to assess subjects' levels of experience in combat (Egendorf, Kadushin, Laufer, Rothbart & Sloan, 1981). A copy of the demographic questionnaire can be found in Appendix E. The demographic variables were analyzed to provide descriptive
characteristics of the subject sample. These analyses are reported in
the section dealing with results.

Multiple Scales of Social Support (MSSS, Morgan, 1982). This
instrument provides one with a multi-dimensional measure of the
subjects' perceived social support. The instrument is comprised of 50
items that differentiate subjects with high versus low perceptions of
social support on five subscales and a total scale score. The five
subscales and the total scale with their definitions are as follows:

1. **Emotional Resources** – perception of emotional support, love
and affection, safe base, refuge, intimacy, and attachment.

2. **Esteem Resources** – perceptions of instrumental support, public
affirmation of worth, validation of personal identity, reassurance of
worth.

3. **Assistance Resources** – perceptions of material support,
education and assistance, guidance, aid, informational assistance.

4. **Affiliative Style** – perceptions of network, primary group
affiliation, social integration, social interactions.

5. **Satisfaction** – The extent to which the individual is satisfied
with his/her perceived social support resources.

6. **Total Scale** – combined perception of social support,
expressed by a total score generated from summing the five subscales.

Initial items for this instrument were generated from faculty and
advanced students at The Ohio State University. The items were then
rewritten to fit the proper criteria for test items. Nine-five items
receiving 80% agreement by five judges after two screenings were
accepted as items on five dimensions measuring perception of resources. Morgan (1982) added three items to each subscale to assess satisfaction with the given resource. A series of factor analyses on three groups of subjects (college students, patients in a psychiatric, rehabilitation and orthopedic wards of a VA hospital, and a range of adult citizens) yielded the revised form containing 50 items and four subscales of perception of resources, the Satisfaction subscale, as well as an overall total scale of perceived social support.

Concurrent validity of the MSSS was determined by correlating subjects' scores on each subscale and the total MSSS scale with their scores on selected measures of anxiety, anger, self-esteem, control, interpersonal behavior, and social desirability. Pearson product-moment correlations were all significant at the .0001 level. Levels of perceived social support were positively related to levels of self-esteem and to interpersonal behaviors reflecting needs for inclusion and affection. Negative relationships were found between the MSSS and Powerlessness, State and Trait Anxiety, and State and Trait Anger.

Item analysis of scores on the revised MSSS yielded inter-item correlations among all items ranging from -.0666 to .623 with a mean of .202. The item-total correlations within the subscales ranged from .328 to .705. The entire 50 item MSSS contained item total correlations ranging from .229 to .595 with a mean of .429.

In addition, estimates of internal consistency reliability produced a coefficient alpha for the total scale of .926. The subscales
generated acceptable alpha coefficients ranging from .741 to .862. From these data it appears that both the subscales and the total scale of the MSSS have acceptable degrees of reliability.

**Jackson Personality Research Form-E (PRF-E, Jackson, 1974).** This instrument consists of 352 true-false items comprising 22 16-item scales. It is a modified version of the original PRF, made briefer for quicker administration and use with a wide array of populations, including non-college and psychiatric groups.

The PRF scales were developed from carefully defined, theoretically based conceptions of what each scale should measure. The definitions were drawn from the work of Murray (1938, cited by Jackson, 1974), who conceived of personality in terms of fulfillment of needs. The PRF dimensions of personality were conceived and constructed to be bipolar. On all subscales, low scores, as well as high scores, are assumed to be important measures of personality. After formulating definitions for subscales and having the item pool critically reviewed by at least two "editors" (Jackson, 1974, p.15), Jackson administered the items under controlled conditions to a sample of over 1000 respondents. A series of biserial correlations between each item and the provisional scale to which they belonged were used to eliminate items that did not differentiate subscales.

Two validity scales were included on the PRF-E. An Infrequency Scale is used to identify careless, non-purposeful, invalid responses. Sixty-five items were written as possible items on this scale and subjected to similar item-analysis procedures used for the other scales,
yielding an Infrequency Scale containing 20 items. A Social
Desirability Scale identifies subjects who are responding to the
instrument in what they perceive to be the correct or most desirable
manner. Items were selected for this scale from a large pool of items
previously scaled for desirability. The items were rewritten for
clarity and administered to 305 male and female subjects. They were
subjected to identical procedures used with the content scales to assess
content homogeneity and scale heterogeneity. The result is a Social
Desirability Scale eliciting consistent tendencies to respond desirably
or undesirably. In addition to the two validity scales, acquiescence in
the PRF is suppressed by employing equal numbers of items that are keyed
as true and false.

Item analysis on PRF data has shown the subscales to have an item
to scale median reliability above .92. Data from the PRF-E has yielded
split-half reliabilities of .77 and .70 for psychiatric and college
samples respectively. Test-retest reliability has also been impressive
for the instrument, with retest reliabilities over one week of .77 to
.90 (Bentler, 1964, cited by Jackson, 1974) and two-week coefficients of
.54 to .85 (Jackson, 1974).

Convergent validity in the PRF was evidenced in the research
results of Jackson and Jackson & Guthrie (cited by Jackson, 1974). The
researchers correlated subjects' responses to the PRF with behavioral
ratings by peers and with subjects' self-ratings on the Trait Rating
Form. For every scale, there were significant correlations with the
independent criteria. To validate further both the PRF and the PRF-E,
the scales on those instruments have been correlated with scales on other personality inventories, including the California Psychological Inventory and the Strong-Campbell Interest Inventory, with correlations in the expected directions.

Jackson suggests that the PRF-E may be particularly appropriate for several areas of application, including the study of group differences, perception of personality, as well as evaluation of the PRF-E in relation to other personality tests. It is pertinent to note that the present study is aimed at those three research areas. The following subscales from the PRF-E were used in this research study:

Measures of Orientation Towards Direction From Other People:

1) **Succorance** - High scores describe the tendency to seek the sympathy, protection, love, advice and reassurance of other people.

2) **Autonomy** - High scores describe individuals who attempt to break away from restraints, confinements, or restrictions of any kind.

Measures of Degree and Quality of Interpersonal Orientation:

3) **Affiliation** - High scores describe individuals who enjoy being with friends and people in general, and accept people readily.

4) **Nurturance** - High scores describe individuals who give sympathy, comfort, and assistance to others.

5) **Aggression** - High scores describe individuals who enjoy combat and argument.

6) **Defendence** - High scores describe individuals who readily suspect that people mean them harm or are against them.

Measures of Test-Taking Attitudes and Validity:
7) **Desirability** - High scores suggest that the individual describes self in terms judged as desirable; presents favorable picture of self in responses to personality statements.

8) **Infrequency** - High scores suggest that the individual's responses are due to carelessness, poor comprehension, passive non-compliance, confusion or gross deviation.

**Statistical Analysis**

Statistical analyses for this research study were divided into three sections corresponding to the stated purposes of the study:

**Purpose 1:** Describe the social support system operating in a sample of Vietnam veterans

Data analysis for this portion of the study consisted of calculating group means and standard deviations on the subjects' responses to the MSSS. These results were examined in relation to past norms for the instrument.

**Purpose 2:** Validation of the MSSS using a homogeneous sample

Data analysis for this portion of the research consisted of two steps. First, reliability of the MSSS was assessed from item analysis statistics and then compared to equivalent correlations reported by Morgan (1982). The second validation check focussed on concurrent validity. Scores on the six scales selected from the Jackson PRF-E were correlated independently with scores on each of the MSSS subscales. Pearson product-moment correlations were computed to test the hypotheses that high levels of perceived social support are positively related to high scores on the
succorance, affiliation and nurturance subscales and negatively related to high scores on the autonomy, aggression and defendence subscales. This test of concurrent validity was based on previous reviews that have postulated relationships between social support and the personality characteristics chosen from the PRF-E. Affiliation, nurturance and help-seeking behavior are consistently mentioned by social support theorists as being critical factors in support systems. Autonomy, defendence, and aggression appear to be directly opposed to what has been theoretically described as supportive behaviors and characteristics. For these reasons, the six personality characteristics measured in the PRF-E were chosen to test further concurrent validity in the MSSS.

Hypotheses Tested:

1) Levels of perceived social support will be positively related to succorance scores.

2) Levels of perceived social support will be positively related to affiliation scores.

3) Levels of perceived social support will be positively related to nurturance scores.

4) Levels of perceived social support will be inversely related to aggression scores.

5) Levels of perceived social support will be inversely related to defendence scores.

6) Levels of perceived social support will be inversely related to autonomy scores.

Purpose 3: Explore the relationship between chronic stress, defined as post-traumatic stress disorder, and perceived social support.
Data analysis for this final stage in the study consisted of computing Pearson product-moment correlations for each MSSS subscale with the post-traumatic stress disorder measure, assessed in the clinical interview format (Hough & Gongla, Note 1). The theoretical and empirical literature has suggested that the veterans' families, friends and community have had significant impact on their adjustment since their return from Vietnam. Based on those assumptions, it is legitimate to hypothesize that there will be a negative association between perceived social support and the measure of post-traumatic stress disorder.

Hypothesis Tested:

7) Levels of perceived social support will be inversely related to the post-traumatic stress symptomatology scores.

In addition to the above analyses, group means for the two scales measuring style variance (Social Desirability and Infrequency) on the PRF-E were examined independently. These two scales provided a check on those two style variances.
CHAPTER III

RESULTS AND DISCUSSION

Results of this study are presented in four parts. The first section provides demographic information about the sample as background for interpreting the data that follow. The second section identifies subjects' perceptions of the kinds of social support that they receive, in terms of their scores on the Multiple Scales of Social Support (MSSS). In the third section, concurrent validity of the MSSS is determined through tests of the hypothesized relationships between levels of social support as measured by the MSSS and the selected variables from the Jackson Personality Research Form-E (PRF-E). Moreover, the reliability of subjects' responses to the MSSS is reported. Finally, as a further concurrent validation of the MSSS, the relationship between subjects' perceived social support and current levels of post-traumatic stress symptomatology is analyzed.

Demographic Information

A total of 100 adult males, all veterans of Vietnam, participated in the study. Table 1 describes the settings from which subjects were recruited. Fifty-five percent of the subjects were receiving services from local Vietnam Veterans Outreach Centers, 33% were either inpatients
Table 1
Subject Recruitment Sources

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<tr>
<th>Source</th>
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<tbody>
<tr>
<td>Veterans Outreach Centers</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>VA Medical Center</td>
<td>33</td>
<td>88</td>
</tr>
<tr>
<td>VA Staff Members</td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
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*Note*  
*N = 100.*
or outpatients at the Veterans Administration Medical Center at Sepulveda, CA, and 12% were para-professional counselors or staff members at either the Medical Center or an Outreach Center. Eighty-nine percent of the sample were receiving various types of services from the Veterans Administration system.

Table 2 presents information pertaining to the ages, employment, education, and marital status of the sample. Ages ranged from 31-54 years, with a mean of 36.1; 63% were between 34-37 years of age and 75% were between 34-40 years of age. Forty percent of the sample were neither employed nor in training, and 45% were employed full-time. In respect to education, 77% of the sample had completed some training beyond high school, with 19% completing at least four years of college. Given the rate of formal education beyond high school, it appears that individuals within the sample were under-employed and were not functioning at the level for which they had been trained. Nearly half, 48%, of the sample were either currently divorced or separated from their spouses, suggesting tendencies in the sample toward alienation, isolation, and/or interpersonal difficulties.

Table 3 exhibits data for the sample on race, military affiliation, type of assigned service in Vietnam, and level of combat exposure. Results indicate that 72% of the sample were Caucasian, 9% were Black, 16% were Hispanic, and 3% were members of other races. As to military service, 61% had been in the Army, 27% in the Marine Corp, and 12% in either the Air Force or the Navy. In terms of military assignment while in Vietnam, 59% of the sample reported having held combat assignments
Table 2
Sample Descriptive Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>%</th>
<th>Cum.%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-33</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>34-36</td>
<td>44</td>
<td>62</td>
</tr>
<tr>
<td>37-39</td>
<td>30</td>
<td>92</td>
</tr>
<tr>
<td>40-54</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>36.11</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>35.89</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>37</td>
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</tr>
<tr>
<td>SD</td>
<td>3.371</td>
<td></td>
</tr>
<tr>
<td><strong>EMPLOYMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Employed Part-Time</td>
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<td>49</td>
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<tr>
<td>Employed Full-Time</td>
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<td>94</td>
</tr>
<tr>
<td>Disabled</td>
<td>4</td>
<td>98</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
<td>99</td>
</tr>
<tr>
<td>Retired</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No High-School Degree</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>High-School Diploma</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Post High-School Credit</td>
<td>58</td>
<td>81</td>
</tr>
<tr>
<td>Graduated 4-yr college</td>
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<td>94</td>
</tr>
<tr>
<td>Graduate training</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td><strong>MARRITAL</strong></td>
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<td></td>
</tr>
<tr>
<td>Single</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Married</td>
<td>37</td>
<td>52</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

**Note.** N = 100.
Table 3
Sample Descriptive Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>%</th>
<th>Cum.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Black</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>Hispanic</td>
<td>16</td>
<td>97</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>98</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>BRANCH OF SERVICE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Navy</td>
<td>9</td>
<td>70</td>
</tr>
<tr>
<td>Air Force</td>
<td>3</td>
<td>73</td>
</tr>
<tr>
<td>Marines</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td>TYPE OF ASSIGNMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Combat Support</td>
<td>16</td>
<td>75</td>
</tr>
<tr>
<td>Service Support</td>
<td>19</td>
<td>94</td>
</tr>
<tr>
<td>Non-Combat</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>LEVEL OF COMBAT EXPOSURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Medium</td>
<td>37</td>
<td>43</td>
</tr>
<tr>
<td>High</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

Note. \( N = 100 \).
and 16% had held combat-support assignments; 25% reported having held either non-combat or service-support assignments in Vietnam. Data on the subjects' level of combat exposure parallels the self-report on their military assignment. Fifty-seven percent of the sample were classified as veterans exposed to high levels of combat on this scale. This figure corresponds to that based on self-report, where 59% reported having held combat assignments. Six percent of the sample were independently classified as having been exposed to a low degree of combat, which again parallels the self-report data indicating 6% of the sample to have had only non-combat experience. Finally, 37% of the sample were classified as having been exposed to medium levels of combat, which corresponds to the self-report data indicating 35% of the sample to have had combat-support or service-support positions. The data on military experience, assessed by the scale developed by Egendorf et al. (1981), reveals that over half of the sample were exposed to high levels of combat and that nearly all (94%) were exposed to at least a moderate level of combat, which included having been fired upon by the enemy and seeing Americans or Vietnamese killed or wounded.

Table 4 summarizes psychiatric diagnoses given to the subjects by their treating physicians at the Veterans Administration Medical Center, Sepulveda, CA. Diagnoses for subjects who were recruited from the Outreach Centers, along with staff participating in the study were not available. Therefore, the diagnostic breakdown presented reflects only subjects recruited from the Sepulveda Veterans Administration Medical Center. Of these subjects, 72.7% were being treated for drug or alcohol
Table 4

Psychiatric Diagnoses of Subjects

From Veterans Administration Medical Center

<table>
<thead>
<tr>
<th>DIAGNOSIS</th>
<th>n</th>
<th>%</th>
<th>Cum.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Traumatic Stress</td>
<td>3</td>
<td>9.1</td>
<td>3</td>
</tr>
<tr>
<td>Major Depression</td>
<td>3</td>
<td>9.1</td>
<td>18.2</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>1</td>
<td>3</td>
<td>21.2</td>
</tr>
<tr>
<td>Drug Dependency</td>
<td>13</td>
<td>39.4</td>
<td>60.6</td>
</tr>
<tr>
<td>Alcohol Dependency</td>
<td>11</td>
<td>33.3</td>
<td>60.6</td>
</tr>
<tr>
<td>Adjustment Disorder</td>
<td>2</td>
<td>6.1</td>
<td>100</td>
</tr>
</tbody>
</table>

Note  N = 33.
dependency. Approximately 9% of the subjects from the medical center were being treated for Post-Traumatic Stress Disorder, another 9% for Major Depression, and the remainder for either an Adjustment Disorder or Bipolar Affective Disorder. It is unclear exactly why such a small percentage of veterans being treated at the medical center were diagnosed as having post-traumatic stress disorder. It may be that the presenting drug and alcohol symptomatology demands the immediate attention of the clinician and the delayed stress symptomatology becomes clearer when the drug and alcohol abuse is treated. It is also possible that veterans experiencing delayed stress prefer to use the Outreach Centers, where staff personnel themselves are often Vietnam veterans and experienced in the treatment of delayed and chronic stress reactions.

Response style within the sample is an important characteristic to describe before interpretation of any results can occur. The response style of the sample studied was assessed by the Infrequency and Social Desirability scales on the Jackson Personality Research Form-E (Jackson, 1974). The Infrequency scale measures the number of responses that could be due to carelessness, confusion or randomness in taking the inventory. The sample mean of .51 on that scale is not significantly higher than the normative score of .48 for college students, \( t(99) = .349 \), or significantly lower than Jackson's (1974) norm of .69 for psychiatric patients, \( t(181) = 1.09 \). Jackson assumes that a high score on the Social Desirability scale suggests that the person is responding so as to present him/herself favorably, or is attempting to respond as s/he should, rather than how s/he "honestly" feels. The mean for the
sample (\(M = 8.12\)) is significantly lower than Jackson's (1974) college student norm of 10.78, \(t(99) = 6.12, p < .01\), and not significantly higher than his psychiatric norm group's mean of 7.68, \(t(181) = .94\). On the basis of the Infrequency and Social Desirability scale scores, the response style of the sample does not appear to be atypically "dishonest": there are few instances of confused or careless responses without tendency to respond in a socially desirable manner.

**Perceived Social Support in the Sample**

A statistical summary of subjects' responses on the Multiple Scales of Social Support yields for each subject a multi-dimensional profile of his/her perceptions of social support currently received. Table 5 displays these statistics.

Using Morgan's (1982) norm group as the basis of comparison on the MSSS, subjects' mean scores on four of the five subscales, as well as the Total Scale, were significantly below that of the norm (\(p < .01\)). The subjects' mean score on the subscale measuring Affiliative Style was the lowest of all (\(M = 15.52\)) and resulted in the greatest mean difference, in comparison to the norm group. This subscale measures the subjects' perceptions of social support received from others, their group affiliation and social interactions, as well as degree of social integration. It appears on the average that this sample of Vietnam veterans perceive a limited number of persons in their environment whom they feel close to or supported by. Emotional Resources was the next subscale in which the subjects in this sample differed most markedly.
Table 5
Descriptive Statistics for This Sample and Morgan's (1982) Norm Group on the MSSS

<table>
<thead>
<tr>
<th>Scale</th>
<th>This Sample</th>
<th>Norm Group</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Assistance Resources</td>
<td>22.55</td>
<td>7.05</td>
<td>24.04</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>15.98</td>
<td>7.51</td>
<td>21.43</td>
</tr>
<tr>
<td>Affiliative Style</td>
<td>15.52</td>
<td>9.23</td>
<td>26.76</td>
</tr>
<tr>
<td>Emotional Resources</td>
<td>24.49</td>
<td>7.29</td>
<td>31.46</td>
</tr>
<tr>
<td>Esteem Resources</td>
<td>25.88</td>
<td>7.03</td>
<td>30.41</td>
</tr>
<tr>
<td>Total Scale</td>
<td>104.36</td>
<td>28.63</td>
<td>134.11</td>
</tr>
</tbody>
</table>


*p < .01. Modified Bonferroni test (Keppel, 1982) used to correct for error rate.
from that of the norm, \( t(721) = 9.01, \ p < .01 \). The subscale of "Emotional Support" purports to measure one's perception of received emotional support, love and affection, as well as intimacy and attachment. It appears that this sample perceives itself as receiving significantly less emotional support in the form of intimacy and love than the group on which the MSSS was standardized. These results support the inferences drawn from the demographic information previously discussed pertaining to the sample's high rate of separation or divorce.

The mean scores for subjects in this sample on both the Esteem Resources and Satisfaction subscales were also significantly below the normative scores at the .01 of probability. The results on the Esteem Resources subscale suggest that the subjects in this sample, on the average, perceive themselves as receiving significantly less validation of their identities, ideas, and accomplishments than the group on which the MSSS was standardized. The results on the Satisfaction subscale suggest that the subjects in this sample, on the average, were significantly less satisfied with the social support that they were receiving than the normative group.

Although the mean Assistance Support score for subjects in this sample was below that of the norm group, the two mean scores were not significantly different, \( t(721) = 1.99 \). Given the fact that nearly all of the subjects responding were actively receiving assistance from the Veterans Administration, the finding for Assistance Support might well be expected.

The Total Scale score on the MSSS is interpreted as a combined
measure of a respondent's perception of social support received, and is obtained by summing subjects' scores on those of the five subscales. It is interpreted as an overall perception of one's social support. The mean for the sample ($M = 104.36$) is significantly lower than the normative score of $134.11$, $t(721) = 9.79$, $p < .01$. These results suggest that on the whole, the subjects in this sample perceive themselves as receiving less support in their environment than that of the group on which the instrument was standardized.

This sample of Vietnam veterans clearly perceives less social support in their environment than the population in general. These results support the inferences of researchers with regard to the interpersonal network operating in Vietnam veterans' lives (Figley, 1978; Shatan, 1978; Panzarella, Mantell, & Bridenbaugh, 1978; Williams, 1980).

Validity of the Multiple Scales of Social Support (MSSS, Morgan, 1982)

The concurrent validity of the MSSS was examined by correlating subjects' scores on it with their scores on the Jackson Personality Research Form-E (PRF-E).

In order to examine the applicability of criterion measures used in the current study, comparison of scores obtained by the present sample with those of the original validation groups is necessary. Mean scores and standard deviations for the sample and norm groups on the Jackson PRF-E personality variables are presented in Table 6. The sample's scores on the Autonomy, Nurturance, and Succorance subscales were all
Table 6
Descriptive Statistics of Validation Measures for the Sample and Normative Groups

<table>
<thead>
<tr>
<th>Measure</th>
<th>This Sample</th>
<th>College Norm Group (Jackson, 1974)</th>
<th>Psychiatric Norm Group (Jackson, 1974)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Affiliation</td>
<td>5.94</td>
<td>3.65</td>
<td>8.33</td>
</tr>
<tr>
<td>Aggression</td>
<td>9.39</td>
<td>3.31</td>
<td>7.35</td>
</tr>
<tr>
<td>Autonomy</td>
<td>9.11</td>
<td>3.38</td>
<td>9.54</td>
</tr>
<tr>
<td>Nurturance</td>
<td>8.80</td>
<td>3.03</td>
<td>8.90</td>
</tr>
<tr>
<td>Defendence</td>
<td>7.42</td>
<td>3.56</td>
<td>5.75</td>
</tr>
<tr>
<td>Succorance</td>
<td>5.20</td>
<td>3.59</td>
<td>5.64</td>
</tr>
</tbody>
</table>

Note. N for Sample = 100 N for Psychiatric Norm Group = 83

*p < .01. Modified Bonferroni test (Keppel, 1982) used to correct for error rate.
Table 7
Correlations of MSSS Scales With Selected Personality Measures from the Jackson PRF-E

<table>
<thead>
<tr>
<th>Variables</th>
<th>Emotional Resources</th>
<th>Satisfaction</th>
<th>Affiliative Style</th>
<th>Assistance Resources</th>
<th>Esteem Resources</th>
<th>MSSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation</td>
<td>.371**</td>
<td>.292**</td>
<td>.798***</td>
<td>.625***</td>
<td>.541***</td>
<td>.692***</td>
</tr>
<tr>
<td>Aggression</td>
<td>-.309***</td>
<td>-.361***</td>
<td>-.403***</td>
<td>-.305**</td>
<td>-.388***</td>
<td>-.456***</td>
</tr>
<tr>
<td>Autonomy</td>
<td>-.554***</td>
<td>.007 NS</td>
<td>-.490***</td>
<td>-.424***</td>
<td>-.280**</td>
<td>-.470***</td>
</tr>
<tr>
<td>Nurturance</td>
<td>.256 **</td>
<td>.094 NS</td>
<td>.378***</td>
<td>.330***</td>
<td>.227*</td>
<td>.340***</td>
</tr>
<tr>
<td>Defendence</td>
<td>-.290**</td>
<td>-.421***</td>
<td>-.337***</td>
<td>-.349***</td>
<td>-.438***</td>
<td>-.476***</td>
</tr>
<tr>
<td>Succorance</td>
<td>.238*</td>
<td>-.222*</td>
<td>.413***</td>
<td>.386***</td>
<td>.127 NS</td>
<td>.269**</td>
</tr>
</tbody>
</table>

Note. *p < .05. **p < .01. ***p < .001.

N = 100.
correlated with the Affiliation measure on the PRF-E, with correlations ranging from .292 to .798 ($p < .05$). Four of the five subscales were significantly correlated with the Nurturance measure, with correlations ranging from .227 to .378 ($p < .05$). In addition, the Total Scale scores correlated positively with those measures at the .001 level of probability. Considering the Succorance measure, scores on three subscales from the MSSS were positively correlated with that measure, with correlations ranging from .238 to .413 ($p < .05$). The Total Scale score on the MSSS was positively correlated with the Succorance measure at the .01 level of probability.

As hypothesized, the Aggression, Autonomy and Defendence measures on the Jackson PRF-E were all negatively related to levels of perceived social support, as measured by the MSSS subscales and Total Scale score. All five subscales from the MSSS were negatively correlated with the Aggression and Defendence measures at the .01 level, with correlations ranging from -.290 to -.438. Four of the five subscales from the MSSS were negatively correlated at the same level of probability with the Autonomy measure. Total Scale scores on the MSSS were negatively correlated with these three personality measures at the .001 level of probability.

The data presented provide reasonable empirical support for additional concurrent validation on the Multiple Scales of Social Support. Significant relationships were obtained between the Total Scale score on the MSSS and all selected personality variables from the Jackson PRF-E.
Reliability of the Multiple Scales of Social Support (MSSS)

Reliability of the MSSS was assessed from analysis of item scores on the instrument. Results of an item discrimination analysis on the MSSS, including the means and standard deviations of each item, and item-total correlations both within the items' subscale and the Total Scale are reported by subscale in Appendix E. The standard coefficient alpha for each subscale and for the Total Scale of the MSSS was used as an estimate of internal consistency. Summary data are presented in Table 8 and reveal that inter-item correlations among all items ranged from -.260 to .641 with a mean of .208. The item-total correlations within the subscales ranged from .182 to .675. Standardized item alpha coefficients for each subscale indicate moderate though acceptable item alpha coefficients for the Assistance Support (.780) and Satisfaction (.773) subscales, according to the guidelines suggested by Anastasi (1968). The Emotional Resources, Esteem Resources and Affiliative Style subscales produced coefficients of .807, .848, and .857 respectively. Finally, the entire 50-item MSSS contained item-total correlations ranging from -.024 to .691 with a mean of .438. These data lend supportive evidence for homogeneity of items on the instrument. Estimates of internal consistency reliability on the instrument were quite favorable and produced a standardized item alpha coefficient for the Total Scale of .929. These results clearly provide additional reliability data on both subscales and the Total Scale of the MSSS to supplement the initial reliability data for the instrument generated by
Table 8
Summary Statistics for the MSSS Subscales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Inter-item Correlation Range</th>
<th>Inter-item Mean</th>
<th>Item-total Correlation Range</th>
<th>Item-total Mean</th>
<th>Standardized Item Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Resources</td>
<td>-.075 - .536</td>
<td>.295</td>
<td>.241 - .646</td>
<td>.483</td>
<td>.807</td>
</tr>
<tr>
<td>Esteem Resources</td>
<td>.050 - .598</td>
<td>.358</td>
<td>.300 - .675</td>
<td>.547</td>
<td>.848</td>
</tr>
<tr>
<td>Assistance Support</td>
<td>.039 - .633</td>
<td>.261</td>
<td>.252 - .607</td>
<td>.449</td>
<td>.780</td>
</tr>
<tr>
<td>Affiliative Style</td>
<td>.114 - .611</td>
<td>.374</td>
<td>.387 - .660</td>
<td>.563</td>
<td>.857</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.027 - .557</td>
<td>.254</td>
<td>.182 - .609</td>
<td>.441</td>
<td>.773</td>
</tr>
<tr>
<td>Total Scale</td>
<td>-.260 - .641</td>
<td>.208</td>
<td>-.024 - .691</td>
<td>.438</td>
<td>.929</td>
</tr>
</tbody>
</table>

Note. N = 100.
Morgan (1982).

Relationship Between Post-Traumatic Stress Symptomatology and Perceived Social Support

Analysis of data for this portion of the research consisted of computing Pearson product-moment correlations for scores on each MSSS subscale with those on the measure of post-traumatic stress disorder. The number of symptoms for which the subjects met criteria from the Diagnostic and Statistical Manual III (American Psychiatric Association, 1980) were summed to arrive at a continuous measure of the subjects' current degree of post-traumatic stress disorder. A continuous measure of post-traumatic stress disorder was used in preference to a dichotomous measure indicating whether the subjects fit the necessary criteria for clinical diagnosis of the disorder to allow for more statistical power in the analysis.

Summary data describing the levels of post-traumatic stress symptomatology experienced by subjects is presented in Table 9. Though the difference was not significant, \( t(98) = 1.55, p < .10 \), the mean score for the subjects associated with the Outreach Centers (\( \bar{M} = 6.03 \)) was slightly higher than that of subjects who were inpatients at the Sepulveda VA Medical Center (\( \bar{M} = 4.73 \)).

Results of the correlational analysis, testing the hypothesis of a positive relationship between subjects' perceived social support and their post-traumatic stress symptomatology, are presented in Table 10. As hypothesized, the measure of post-traumatic stress was negatively
Table 9  
Post-Traumatic Stress Measure  
by Recruitment Source

<table>
<thead>
<tr>
<th>Source</th>
<th>n</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterans Outreach Centers</td>
<td>67</td>
<td>6.03</td>
<td>4.40</td>
</tr>
<tr>
<td>VA Medical Center</td>
<td>33</td>
<td>4.73</td>
<td>3.69</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>5.6</td>
<td>4.21</td>
</tr>
</tbody>
</table>
Table 10
Correlations of Post-Traumatic Stress Measure with the Social Support Scales

<table>
<thead>
<tr>
<th></th>
<th>Emotional Resources</th>
<th>Esteem Resources</th>
<th>Assistance Resources</th>
<th>Affiliative Style Satisfaction</th>
<th>Total MSSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Traumatic Stress</td>
<td>-.225*</td>
<td>-.181*</td>
<td>-.266**</td>
<td>-.376***</td>
<td>-.365***</td>
</tr>
<tr>
<td>Stress Measure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p .05. **p .01. ***p .001.
related to levels of perceived social support. This is most clearly indicated by the correlation of -0.365 for the post-traumatic stress symptomatology measure with the Total Scale score (p < .001). Scores on all subscales from the MSSS were also shown to be significantly correlated with the post-traumatic stress measure, with correlations ranging from -0.181 to -0.376 (p < .05). There is strong support for the hypothesized negative relationship between the reported experience of receiving social support and the reported experience of post-traumatic stress symptomatology.

DISCUSSION

The intent of this study was to investigate and describe the social support system operating in a sample of Vietnam veterans. In addition, the instrument used to assess social support was tested for further evidence of its validity and reliability. Finally, the relationship between levels of perceived social support in the sample and the degree of post-traumatic stress symptomatology experienced was also investigated. The present study attempted to provide evidence to support the assertions of many theorists and clinicians that Vietnam veterans perceive less support in their environment than the general population and that interpersonal qualities of isolation and alienation are closely related to post-traumatic stress disorders.

Results of the study support the contention that this sample of Vietnam veterans do perceive significantly less social support in their
environment than the general population perceives. The heterogeneous group on which the MSSS was standardized was comprised of college students, hospitalized medical and psychiatric patients, and community citizens. Given the heterogeneity of the normative group, we may infer group's scores on the MSSS to be more closely representative of social support in the general population than those of this sample. The mean score for subjects in this sample on the Total MSSS was significantly below the normative response, at the .01 level of probability. In addition, the Affiliative Style, Emotional Resources, Esteem Resources, and Satisfaction subscales were all significantly below the means of Morgan's norm group (p< .01). Results clearly imply a smaller network of support, a more limited amount of intimacy, love, attachment, and validation of identity, along with less satisfaction with received social support in this sample than in the group on which the MSSS was standardized (Morgan, 1982).

Results of the study further indicate scores on the MSSS itself to be reliable and valid measures of perceived social support. Concurrent validity is provided by support for the hypothesis that levels of perceived social support, as measured by the MSSS, were positively related to reported interpersonal behavior indicative of needs for Nurturance, Affiliation and Succorance, as measured by the Jackson PRF-E. In addition, levels of perceived social support were negatively related to scores on subscales from the PRF-E purporting to measure needs for Aggression, Autonomy and Defendence. Reliability of scores on the MSSS is indicated by homogeneity of subjects' responses to items in
Lastly, there was support for the hypothesis of a significant relation between responses to the MSSS and evidence of post-traumatic stress. As predicted, subjects' scores on all five subscales and the Total MSSS were negatively correlated with the measured post-traumatic stress symptomatology.

Two specific cautions about interpretations of results obtained in this study should be noted. First, the sample of respondents appears to have been overrepresented by veterans seeking help, suggestive of a bias that prompts caution in viewing the results as characteristic of Vietnam veterans in general. However, the sample does seem to be representative of Vietnam veterans under treatment in the Outreach Centers and Medical Center. Generalization to that population appears to be warranted in view of the relatively large (N = 100) sample of respondents in this study. Given the results obtained here and their relevance for Vietnam veterans who have turned to the VA for professional help in solving their problems, there is also warrant for a comparative study of Vietnam veterans recruited from the community who have not requested VA services.

A second caution focusses on inferences that can be drawn from a correlational study of this sort. The results suggest only that a relation exists between perceived social support and evidence of post-traumatic stress disorder. It remains unclear whether correlation implies causation, i.e., whether one condition is dependent upon the other or whether the two conditions are merely interactive in their
development. Future research on the relationship, using an experimental design, may aid clinicians and theorists in their understanding of the etiology and treatment of the disorder.

The findings of this study thus do have important implications for future research and clinical practice. For one thing, much of the previous research on social support has been handicapped by lack of adequate identification of the construct (Thoits, 1982). Additional evidence yielded by this study for the reliability and validity of the Multiple Scales of Social Support (Morgan, 1982) encourages continued and expanded use of that instrument and points toward increased conceptual and methodological sophistication in further research on social support. In addition, the MSSS has been shown to be effective in measuring social support in a multi-dimensional manner, which has been advised by some social support theorists (Wallston, Alagna, DeVallis & DeVallis, 1983).

Results of the study also suggest directions for clinical work with Vietnam veterans. It would be advisable for clinicians to be aware of conditions that may arise when veterans perceive little emotional and esteem resources and are dissatisfied with the social support they are receiving. These individuals may be isolative, alienated, discouraged, and lacking in self-esteem. Results of the study suggest that it would be advantageous for the clinician to deal directly with issues of social support when treating the Vietnam veteran. Exploration early in the therapeutic process into feelings of isolation and alienation appears warranted. In addition, results of this research support the need for
active work in therapy on increasing both the network and resources comprising the support system of the Vietnam veteran. Family and other systems approaches to therapy may be advisable, given the need to increase the veterans' network of support.

Lastly, results of the study provide additional evidence of the need for community and veterans' organizations to develop outreach programs to meet the needs of the Vietnam veteran group. The creation of Veterans Outreach Centers has given the Vietnam veteran a valuable resource agency and support network within the community. Continued development of the Outreach program appears needed and justified, from the results of this study. In addition, continued efforts to educate the public on the issues affecting the Vietnam veteran are warranted, with the goal of enabling community members to be of assistance individually and to create community programs that could be of benefit to the veteran. Efforts on the part of veterans organizations, as well as community groups, to address the emotional, esteem, and material support that veterans perceive themselves to be lacking would clearly be advised on the basis of these findings.
BIBLIOGRAPHY


Gottlieb, B. Social support as a focus for integrative research in psychology. *American Psychologist*, 1983, 38, 278-287.


Reference Notes


Social Support - Definition

In the study of social support, lack of clarity in definition of the construct has been a central problem. Gerald Caplan (1974) suggests that social support implies a lasting pattern of continuous or intermittent ties that play a significant part in maintaining emotional and physical well-being of the individual over time. He later clarified his definition somewhat by suggesting that the ties or attachments people have with others decrease stress through (a) promoting emotional mastery, (b) offering guidance, and (c) providing feedback that fosters support and improved performance (Caplan, 1976). Sidney Cobb (1976; 1982) defines social support as information leading the subject to believe that s/he is (a) cared for and loved, (b) esteemed, and (c) a member of a network of mutual obligations. The elements of emotionality and mutuality in relationships appear to be agreed upon by these two theorists.

Pilisuk and Parks (1980) appear to have integrated much of Caplan's definition in their research efforts. They defined social support as the range of interpersonal exchanges that provides an individual with information, emotional reassurance, physical or material assistance, and a sense of the self as an object of concern. The element of mutual obligation does not appear to be salient in their definition of social support.
Kahn and Quinn (1977, cited by Heller, 1979) defined social support as an interpersonal transaction consisting of (a) expression of affect, (b) expression of affirmation, and (c) provision of aid. Emotionality is again suggested to be of importance, as well as esteem and direct aid or guidance.

Lin, Simeone, Ensel and Kuo's (1979) definition of social support appears to be less precise than the definitions suggested by Caplan, Cobb, or Kahn & Quinn. Lin, et al. defined social support as support accessible to an individual through social ties to other individuals, groups, and the larger community. The imprecision in definition of one of the major constructs in their study creates confusion over what they were actually measuring in their research efforts.

James House (1981) summarizes definitions of the construct by asserting that the experts in the field agree that social support is an interpersonal transaction involving one or more of the following elements: (a) emotional concern (liking, love, empathy); (b) instrumental aid (goods and services); (c) information (about one's environment); and (d) appraisal (self-evaluation information). This definition is a broadly based conceptualization and seems to take into account previous efforts satisfactorily.

Wallston, Alagna, DeVallis & DeVallis (1983) reviewed the research literature on the relationship between social support and physical health and found that conceptualizations of social support varied widely. They suggest that social support may generally be described as "the comfort, assistance, and/or information one receives through formal
or informal contacts with individuals or groups" (p.369). They further note that most concepts of social support can be placed along two dimensions: (a) quantity versus quality, meaning that the concept can be discussed either in terms of amount of people, contacts, and so forth, or quality of those measures (perceptions or judgements about adequacy); and (b) instrumental versus expressive, meaning that the concept can be discussed either in terms of provision of material assistance from others or acceptance and understanding by others. Wallston, et al. (1983) also reviewed assessment techniques used in the study of social support and noted that researchers have often failed to recognize that social support is not a unitary construct. The authors endorse a multi-dimensional view and assessment of social support.

Procidano and Heller (1983) defined social support as having two distinct factors: (a) perceived support from one's family, and (b) perceived support from one's friends. These authors developed two separate inventories to assess the two factors and reported that both measures were separate from each other and independent from social network measures. Procidano and Heller suggest that differentiating perceived social support from social network characteristics has value, which theoretically argues against the notion of considering social support to be a multi-dimensional construct.

**Effects of Social Support on Life Stress**

Researchers in epidemiology have been instrumental in developing the framework behind the study of the effects of social support on
stress and well-being. Their questions have been:

1. Does social support act directly to reduce life stress?
2. Does having good support systems result in better physical and psychological health?
3. Does social support act to mediate the effects of life stress on well-being?

The first two questions are aimed at assessing the main or direct effects of social support. The third question describes what has been called the possible buffering role of social support (Heller, 1979; House, 1981; Thoits, 1982). The buffering effect of social support on health suggests that the deleterious impact of stress on health is decreased or eliminated as social support increases. Implicit in this conceptualization is the understanding that support will have its strongest beneficial effect on health among people under stress and may have little positive effect for people not under stress. Researchers differ on whether the effects of social support are to be construed as direct or mediating. The buffering hypothesis has been articulated and supported by Caplan (1974, 1976) and Cobb (1976), and also in a research study by Nuckolls (1972, cited by House, 1981). In contrast, Lin, Ensel and Simeone (1979), Holahan and Moos (1981), and Turner (1981) discuss the significant main effects they found for social support on health and well-being.

The issue of main versus buffering effects may be both premature and unnecessary for researchers to debate. Here, too, the interpretation of research findings is hindered by inadequate definition
of social support. In addition, the statistical analyses conducted on much of the data collected thus far have been primarily centered on correlation and regression (Nuckolls, 1972, cited by Heller, 1979; Lin, Ensel, Simeone, & Kuo, 1979; Hirsch, 1980; Turner, 1981; Holahan & Moos, 1982; Husaini, Neff, Newbrough & Moore, 1982), which on their own do not imply causality. Sidney Cobb (1982) notes that the issue of main versus buffering effects is not as important as researchers have made it seem to be.

Evidence from the epidemiological research suggests that social support can aid people in their recovery from a wide variety of physical and psychological problems: low birth weight, arthritis, depression, alcoholism, recovery from surgery and various illnesses, the stress of unemployment, bereavement, or the threat of death (Cobb, 1982; Lieberman, 1982). Most of the epidemiological research has consisted of field experiments, in which there has been an attempt to vary interventions assumed to affect well-being followed by outcome measures of both psychological and physical symptomatology.

There has been a limited amount of non-experimental research on the effects of social support on life stress well-being. One well documented study of this type was reported by Berkman and Syme (1979). It is cited by several authors as having been quite influential in the epidemiological study of social support (Antonovsky, 1979; House, 1981; McCubbin, 1982). Berkman and Syme's (1979) research design was longitudinal, following people over a period of nine years to determine the effects of presence or absence of marriage, friends, church
membership, and informal/formal group association on whether a person lived or died within the nine years. The researchers found that people who reported little or more of each social tie were from 30 to 300 percent more likely to die than those who had these relationships.

A field study reported by Hirsch (1980) also adds support to the hypothesis that social support can enhance one's ability to cope with the stress of changes in life. In this project (Hirsch, 1980), 20 young widows and 14 mature women returning to college were studied. Dependent measures included daily logs kept by the women and inventoried measures of mental health and self-esteem. Findings were reported to be consistent with the hypothesis that support enhances adaptation to stress. The author states that multi-dimensional support systems appear to lead to increased health and self-esteem, but does not adequately substantiate his claim. His identification of social support rests solely on inferences drawn from his interpretation of information contained in the logs.

Lin, Ensel, Simeone and Kuo (1979) examined the effects of social support and stressful life events on psychiatric symptoms. Subjects' feelings of depression, anxiety, alienation, and discontent were identified through self-report checklists. The authors attempted to clarify whether social support had direct or buffering effects on stress and psychiatric symptomatology. A multiple regression model was used, with psychiatric symptoms identified as the independent variable and marital status, occupational prestige, life events, and social support as dependent measures. The results of the multiple regression analyses
showed that social support contributed significantly to the explained variance in psychiatric symptoms, though the evidence for its buffering effect remained inconclusive.

The importance of quality versus quantity of support was examined by Wilcox (1981), in his study of the influence of social support on the relationship between stressful life events and psychological adjustment. Five inventories measuring social support, psychological distress and stressful life events were completed by 320 subjects. One measure of social support assessed quantity and another measure assessed quality of support. The assumption that social support mediates between life events and psychological distress was supported for each social support measure, using two psychological distress variables. The percent of variance accounted for, however, was much greater when the support measure used assessed quality rather than quantity of support. Wilcox notes the importance of quality versus quantity of support in mediating between life stress and psychological distress. However, the results do not indicate the manner in which social support functions in the buffering process. The importance of quality versus quantity of social support has also been found in research efforts by Holahan & Moos (1981) and Porritt (1979).

**Social Support Experienced by Vietnam Veterans**

The Vietnam war, lasting fifteen years, was the longest in American history and the only one in which the United States did not emerge as the clear-cut victor (Leventman, 1978). Current statistics suggest that
somewhere between 500,000 and 1.5 million Vietnam veterans may be suffering from a chronic stress disorder (Blank, 1982; Walker, 1981; Walker & Cavenar, 1982). The development of stress disorders in Vietnam veterans has been associated with several factors; support experienced during and after the war being just one of many.

The veterans' experience during their time in Vietnam seems to have been characterized by a sense of aloneness. The Vietnam veteran entered the war alone with a specified date of return. This was the first time in American history that soldiers did not enter a war with a unit and remain with that group of men throughout the experience (Walker & Cavenar, 1982). This change in procedure was instituted by the United States government as a means to make combat stay briefer and decrease fatigue and psychiatric problems. Initial psychiatric reports during the war years suggested that the new procedures were effective in decreasing combat fatigue and neuroses from the stress of war (Horowitz & Solomon, 1978; Kormos, 1978; Panzarella, Mantell, & Bridenbaugh, 1978). The procedure, however, resulted in a lack of unit morale and identification. The soldiers' goal became survival until dearture date rather than unity to achieve victory (Goodwin, 1980; Horowitz & Solomon, 1975; Langley, 1982; Moskos, 1975; Panzarella, et al., 1978; Walker & Cavenar, 1982). Soldiers felt very little support from comrades or officers, which added to the stress felt from the combat experience itself.

Another factor relating to the lack of support experienced by Vietnam veterans during the war was the nature of guerilla warfare that
the veterans were forced to live with (Blank, 1982; Langley, 1982). It was difficult for Vietnam veterans to feel support for their actions from the South Vietnamese people, whom the soldier was supposedly fighting for. Soldiers were forced to trust no one and were often victims of booby traps set by insurgent South Vietnamese troops. American soldiers were unable to identify friend from enemy and at times were forced to kill women and children, who were active agents in guerilla warfare techniques (Goodwin, 1980; Leventman, 1978; Walker & Cavenar, 1982).

The American troops were aware of mixed political support from Americans at home while fighting the war (Blank, 1982; Horowitz & Solomon, 1978). This awareness was the beginning of what has been described as a particularly salient problem for the Vietnam veteran. When the troops returned to the United States the lack of support was more evident and was instrumental in creating an extremely stressful homecoming experience. The Vietnam veteran was sent home alone in a very brief period of time, sometimes within 48 hours of being in combat (Figley, 1978; Walker & Cavenar, 1982). Many veterans were often greeted at the airport by Americans protesting the war. There were no welcoming parties or parades, as had been experienced by previous war veterans (Berkowitz, 1980; Figley, 1978a; Langley, 1982; Walker & Cavenar, 1982). The veterans of Vietnam received no sanctions from the American people for their actions; rather they were confronted with hostility for having been part of the war experience (Blank, 1982; Goodwin, 1980). After living with the daily stress of survival in a war
where there was little support from comrades, officers or civilians, the veteran returned to a homeland to be greeted by hostile and angry Americans.

The homecoming experience is said to have been instrumental for the gradual withdrawal of many Vietnam veterans from other people. It was common for veterans to discover that their family and friends did not want to hear about the war experiences and that when they did listen, they often could not understand the depth of emotions felt (Williams, 1983). As a result, one symptom that has frequently been identified in Vietnam veterans experiencing chronic and delayed forms of post-traumatic stress disorder is a "numbing of responsiveness to or reduced involvement with the external world" (American Psychiatric Association, 1980, p. 238). Lack of intimacy with others and an inability to sustain interpersonal relationships have been noted to be particularly difficult problems for many veterans suffering from post-traumatic stress disorder (Egendorf, 1982; Haley, 1978; Lipkin et al., 1982; Roberts, Penk, Robinowitz, Dolan, Gearing, & Patterson, 1982; Shatan, 1973; Stanton & Figley, 1978). Fairbank, Keane and Malloy (1983) examined Minnesota Multiphasic Personality Inventory profiles on combat veterans suffering from post-traumatic stress disorder. They found that, on the average, the 2-8/8-2 profile code characterized the group. This profile code is associated with various symptoms, including avoidance of close interpersonal contacts. Rozynko and Schutz (Note 2) found evidence suggesting personality characteristics of self-alienation and social withdrawal, along with limited needs for affiliation and
nurturance in a Vietnam veteran group they assessed, using the Millon Clinical Multiaxial Inventory and the Jackson Personality Research Form-E. Delayed stress disorders began to manifest themselves as early as a few months after return from Vietnam. In some cases the disorders have become evident several years after return (Horowitz & Solomon, 1978; Shatan, 1978). It is inferred that the brief period of time in combat coupled with a definite departure date allowed the combat veteran to temporarily withstand the acute stress experienced during the war. The delayed stress conditions that have manifested themselves after release from the military indicate that many Vietnam veterans were exposed to unusually stressful conditions and that many continue to experience residual problems as a result of that stress.

It has further been suggested that delayed and chronic stress conditions that many Vietnam veterans experience may be effectively aided by the veterans' support system. Stanton & Figley (1978) suggest that systems, such as family, co-worker, or neighborhood could be used as agents of change in treating Vietnam veterans experiencing post-traumatic stress symptomatology. Martin (1981, cited by Egendorf, 1982) found in his research that the active support of wives can aid in reducing the demoralization felt in Vietnam veterans. Kadushin (1981, cited by Egendorf, 1982) emphasizes the importance of a veteran's family and friends in decreasing the severity of chronic stress. Candis Williams (1980) agrees that family, friends, community, and country need to lend active support to Vietnam veterans. She suggests that these agents of support be the focus of attention for mental health
professionals in developing treatment programs for the veterans.
APPENDIX B

SUBJECT REFERRAL FORM

Your Name: ___________________________________________

Position (check one):  
A. Staff Psychiatrist  
B. Staff Psychologist

Unit You Work On (check one):  
A. Inpatient Psychiatric  
B. Drug Dependency  
C. Alcohol Dependency  
D. Outpatient Psychiatry  
E. Vocational Counseling

Phone Extension: _____________________________

Patient Name: _____________________________________

Current Psychiatric Diagnosis: _________________________

Current Medications: ________________________________

Is the patient on any medications that could interfere with his being able to complete a 20-45 minute interview in any way? ________________

Thank you again for your support in my completing this project. You can contact me at X2501 or leave this referral form in my mailbox on 5-2A or the Psychology Office. I will contact you when I complete the testing on your patient.

Karen Payne, M.A.
There is a research project currently underway at the VA Medical Center in Sepulveda on Vietnam veterans. The project is aimed at exploring the help and support veterans feel they have received from family, friends and community. The other purpose of the project is to explore the relationship between help veterans receive from others and stress reactions they experience from events that occurred in Vietnam. This project may provide evidence that the VA and other agencies can use to understand and respond to your needs.

Your help by participating in this project is being requested. The project is being run by Karen Payne, a clinical psychology intern at the VA. If you participate, it will take about two hours of your time. If you want to be part of the project, or just find out more about it, call the Vet Center and talk with your counselor. Bill, Rod, or Fred will arrange for you to meet with Karen at the Vet Center at a time most convenient for you.

Research projects like this one are valuable and long over-due. Your support and participation in this project is encouraged.
SEPULVEDA, CA. - The research project that was described in last month's SALUTE is still underway at the Vet Center. Thanks go out to those who called in to volunteer. The project coordinator, Karen Payne, reports that she is still in need of help from more of you. It involves about two hours of your time and can be done at a convenient time for you. Call and arrange time to talk with Karen. Be part of this valuable experience!
ARTICLE # 3 – JUNE SALUTE

* * * * * * * * * * * *

RESEARCH PROJECT CONTINUING – TIME TO GET INVOLVED

The research project that was described in the past two issues of SALUTE is still underway at the Vet Center. Thanks go out to those who called in to assist in the collection of data. The project coordinator, Karen Payne, reports that she is still in need of help from more of the Vietnam veterans living in our area. It involves about two hours of your time and can be done at a convenient time for you. Call and arrange time to talk with Karen. Be a part of this valuable experience! Call and sign up today.

* * * * * * * * * * * *
APPENDIX C (Continued)

NEWSLETTER RECRUITMENT ARTICLES

ARTICLE #4 - JULY SALUTE

LAST CALL  LAST CALL

THIS IS YOUR LAST CHANCE TO CALL THE VET CENTER AND BE A PART OF THE RESEARCH PROJECT THAT HAS BEEN IN PROGRESS THERE THE LAST THREE MONTHS. YOU MAY HAVE (PROBABLY DID!) READ ABOUT THE PROJECT IN THE MAY AND JUNE SALUTE. THE PROJECT COORDINATOR, KAREN PAYNE, REPORTS THAT ABOUT 80 VETS HAVE GOTTEN INVOLVED SO FAR. SHE IS HOPING TO TALK WITH 100 VETS BEFORE THE PROJECT IS COMPLETED. JUST AS A REMINDER, IF YOU AGREE TO PARTICIPATE IN THE PROJECT, KAREN WILL ARRANGE TO MEET WITH YOU AT A CONVENIENT TIME FOR YOU AT THE VET CENTER.

THE PROJECT EXPLORES THE SOCIAL SUPPORT SYSTEM OPERATING IN THIS GROUP OF VIETNAM VETERANS. IT HAS BEEN SUGGESTED THAT THE LACK OF SUPPORT FROM FAMILY, FRIENDS, AND SOCIETY MAY HAVE BEEN AN IMPORTANT FACTOR IN THE READJUSTMENT OF VETS. KAREN IS EXPLORING THIS QUESTION IN HER PROJECT.

INVOLVEMENT IN MEANINGFUL ACTIVITIES AND PROJECTS IS HEALTHY AND CAN IMPROVE YOUR FEELINGS ABOUT YOURSELF. CALL THE VET CENTER TODAY AND INVOLVE YOURSELF IN THIS PROJECT. IT MAY HAVE SOME IMPORTANT AND BENEFICIAL EFFECTS ON FELLOW VETS.
# Appendix D
## Consent Forms

### Consent Form #1 - VA Form 10-1086

**Part I: Agreement to Participate in Research**

**By or Under the Direction of the Veterans Administration**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Details</th>
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<tbody>
<tr>
<td>1. a.</td>
<td>I, ____________________, voluntarily consent to participate as a subject in the investigation entitled _____________________. (Type or print subject's name)</td>
</tr>
<tr>
<td>2.</td>
<td>I have signed one or more information sheets with this title to show that I have read the description including the purpose and nature of the investigation, the procedures to be used, the risks, inconveniences, side effects and benefits to be expected, as well as other courses of action open to me and my right to withdraw from the investigation at any time. Each of these sheets has been explained to me by the investigator in the presence of a witness. The investigator has answered my questions concerning the investigation and I believe I understand what is involved.</td>
</tr>
<tr>
<td>3.</td>
<td>I understand that no guarantees or assurances have been given to me since the results and risks of an investigation are not always known beforehand. I have been told that this investigation has been carefully planned, that the plan has been reviewed by knowledgeable people, and that every reasonable precaution will be taken to protect my well-being.</td>
</tr>
<tr>
<td>4.</td>
<td>In the event I sustain physical injury as a result of participation in this investigation, if I am eligible for medical care as a veteran, all necessary and appropriate care will be provided. If I am not eligible for medical care as a veteran, humanitarian emergency care will nevertheless be provided.</td>
</tr>
<tr>
<td>5.</td>
<td>I realize I have not released this institution from liability for negligence. Compensation may or may not be payable, in the event of physical injury arising from such research, under applicable federal laws.</td>
</tr>
<tr>
<td>6.</td>
<td>I understand that all information obtained about me during the course of this study will be made available only to doctors who are taking care of me and to qualified investigators and their assistants where their access to this information is appropriate and authorized. They will be bound by the same requirements to maintain my privacy and anonymity as apply to all medical personnel within the Veterans Administration.</td>
</tr>
<tr>
<td>7.</td>
<td>I further understand that, where required by law, the appropriate federal officer or agency will have the access to information obtained in this study should it become necessary. Generally, I may expect the same respect for my privacy and anonymity from those agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.</td>
</tr>
<tr>
<td>8.</td>
<td>In the event that research in which I participate involves certain new drugs, information concerning my response to the drug(s) will be supplied to the sponsoring pharmaceutical house(s) that made the drug(s) available. This information will be given to them in such a way that I cannot be identified.</td>
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**NAME OF VOLUNTEER**

I, ____________________, have read this consent form, all my questions have been answered, and I freely and voluntarily choose to participate. I understand that my rights and privacy will be maintained. I agree to participate as a volunteer in this program.

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### VA Facility

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<th>Subject's Signature</th>
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### Witness's Name and Address (if any)

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### Investigator's Name (if any)

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<th>Signed information</th>
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**Subject's I.D. No.**

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**Agreement to Participate in Research by or under the Direction of the Veterans Administration**

VA Form 10-1086

SEP 1993

This form will not be used.
CONSENT FORM #2 - VA Human Studies Form

HUMAN STUDIES CONSENT FORM
(Addendum to VA Form 10-1086)

Date: January 12, 1984

Sepulveda VA Medical Center
Sepulveda, CA 91343

RESPONSIBLE INVESTIGATOR: Carl Sipprella, Ph.D.
CO-INVESTIGATORS: Karen Payne, M.A.
TITLE OF PROTOCOL: Social Support and Post-traumatic Stress Disorders in Vietnam Veterans

TITLE OF CONSENT FORM: SAME

I have been asked to participate in a research study that is investigating social support and post-traumatic stress disorders in Vietnam veterans.

I agree to fill out two questionnaires. One questionnaire will take approximately 30 minutes, and the other will take approximately one hour to fill out. The items on the questionnaires will relate to my perceptions of my social support and my attitudes and behaviors. I also agree to participate in a clinical interview, which will take approximately 15-20 minutes. During this interview I will be asked about my experience in Vietnam and my reactions after returning home.

I understand that:

a. The possible risk of participating in this study is increased anxiety resulting from remembering and/or discussing distressing events that may have occurred in my life. Help will be available from the staff person on the unit at the time and from my primary care person.

b. There are no known benefits of my participating in this research project.

c. Any questions I have concerning my participation in this study will be answered by Karen S. Payne, M.A., (818) 891-7711, extension 2509.

d. I may withdraw from the study at any time without prejudice.

e. The results of this study may be published, but my name or identity will not be revealed and my records will remain confidential unless disclosure of my identity is required by law.

Date

PATIENT OR RESPONSIBLE PARTY

PATIENT’S SOCIAL SECURITY NUMBER

AUDITOR/WITNESS

INVESTIGATOR/PHYSICIAN REPRESENTATIVE
APPENDIX D (cont.)
CONSENT FORMS

Consent Form #2 (cont.) - VA Human Studies Form

HUMAN STUDIES CONSENT FORM
(Addendum to VA Form 10-1086)

Date: January 12, 1984

Sepulveda VA Medical Center
Sepulveda, CA 91343

RESPONSIBLE INVESTIGATOR: Carl Sipple, Ph.D.
CO-INVESTIGATORS: Karen Payne, M.A.

TITLE OF PROTOCOL: Social Support and Post-traumatic Stress Disorders in Vietnam Veterans

TITLE OF CONSENT FORM: SAME

f. My consent is given voluntarily without being coerced or forced.

g. In the event physical injury is sustained as a result of participation in this program, non-veterans may receive emergency medical care and, in appropriate cases, may be entitled to compensation under the provisions of the Federal Tort Claims Act (28 U.S.C. 1346(b), 2671-2680).

Continuing medical care will be provided eligible veterans in the event physical injury is sustained as a result of participation in this program. Additionally, compensation may be payable to eligible veterans under 38 U.S.C. 331 or, in appropriate cases, under the provisions of the Federal Tort Claims Act (28 U.S.C. 1346(b), 2671-2680).

For clarification of these laws, I may contact the VA District Counsel at (213) 209-7379.

h. If I have any complaints about the study I may express them to Karen Payne, M.A., or the Associate Chief of Staff for Research, telephone (818) 891-2481, Bldg. 7, Room C-121.

i. I have received a copy of this consent form for my file.

I have read the above and understand it and hereby consent to the procedure(s) set forth.

Data PATIENT OR RESPONSIBLE PARTY

PATIENT'S SOCIAL SECURITY NUMBER

AUDITOR/WITNESS

INVESTIGATOR/PHYSICIAN REPRESENTATIVE

Page 2 of 2
APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE

1. S.S.# ________________________

2. Age: ____________


5. Time Served in Vietnam: ____________ (in months)

6. Type of Discharge: 1) honorable 2) general honorable 3) general dishonorable 4) dishonorable

7. Employment Status: 1) unemployed 2) employed part-time 3) employed full-time 4) in job-training 5) physical disability prevents work 6) in educational program that is not job training

8. How many of the last 12 and 24 months employed? ____________

9. Annual Income: 1) <$3000/yr 2) $3000--$5000/yr 3) $5000--$10,000/yr 4) $10,000--$15,000/yr 5) >$15,000

10. Marital Status: 1) Single 2) Married 3) Divorced or Separated 4) Widowed

11. Educational Level: 1) no high school diploma or GED 2) graduate from high school 3) GED 4) some post high-school education 5) graduate from 4-year university 6) graduate work
APPENDIX E (cont.)

DEMOGRAPHIC QUESTIONNAIRE

12. Occupation: 1) laborer
   2) blue-collar worker
   3) tradesman
   4) white collar worker
   5) professional
   6) unemployed

13. Type of Service: 1) combat
       2) combat support
       3) service support (non-combat duty
           in a combat zone
       4) did not serve in combat zone

14. Which of the following, if any, describes your exposure to combat in Vietnam?
   A. Was part of a land or naval artillery unit which fired on the enemy
   B. Flew in aircraft over South or North Vietnam
   C. Stationed at a forward observation post
   D. Received incoming fire from enemy artillery, rockets or mortars
   E. Unit patrols encountered mines and booby traps
   F. Unit received sniper or sapper fire
   G. Unit patrol was ambushed
   H. Unit patrol engaged the Vietcong (or guerilla troops) in a firefight
   I. Unit patrol engaged the NVA (organized military forces) in a firefight
   J. Saw either Americans or Vietnamese killed or wounded.

   Scoring: A-F = 1 point
   G-J = 2 points

   Results (Circle One): Low Combat: 0-3
                        Medium Combat: 4-9
                        High Combat: 10-14
### APPENDIX F

Descriptive Item Statistics for MSSS by Subscales

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Mean</th>
<th>SD</th>
<th>Item - Total Correlations</th>
<th>Stand. Item</th>
</tr>
</thead>
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<td>1.41</td>
<td>.577</td>
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<td>3.57</td>
<td>1.3</td>
<td>M = .483</td>
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| 5           | 3.83 | .95  | .539                      | .359        |
| 10          | 3.38 | 1.25 | .532                      | .610        |
| 15          | 3.27 | 1.14 | .423                      | .401        |
| 20          | 3.56 | 1.15 | .620                      | .512        |
| 25          | 4.09 | .84  | .603                      | .524        |
| 30          | 3.44 | 1.02 | .500                      | .463        |
| 35          | 3.81 | .85  | .622                      | .478        |
| 40          | 4.23 | .85  | .300                      | .250        |
| 45          | 3.20 | 1.01 | .660                      | .691        |
| 50          | 3.55 | .96  | .675                      | .721        |
| Scale Total | 3.64 | 1.00 | M = .547                  |             |

| 3           | 1.84 | 1.12 | .353                      | .306        |
| 8           | 3.53 | 1.30 | .431                      | .442        |
| 13          | 3.23 | 1.40 | .567                      | .483        |
| 18          | 2.89 | 1.41 | .349                      | .310        |
| 23          | 3.92 | 1.32 | .423                      | .451        |
| 28          | 2.60 | 1.28 | .607                      | .443        |
| 33          | 3.67 | 1.12 | .410                      | .400        |
| 38          | 3.57 | 1.10 | .547                      | .502        |
| 43          | 4.24 | .85  | .252                      | .318        |
| 48          | 3.48 | 1.18 | .556                      | .510        |
| Scale Total | 3.29 | 1.21 | M = .450                  |             |

**Note:** The mean and standard deviation values are given for each item, followed by the item's correlation with the total score and the subscale score, as well as the standard item score (Stand. Item). The table also includes the scale total mean and standard deviation values. The alpha coefficient (Alpha) is provided for each scale to indicate the internal consistency reliability of the scale.
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<th>Full Scale</th>
<th>Alpha</th>
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