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**Spirituality and time perspectives in Vietnam combat veterans
with and without post traumatic stress disorder: A comparative
study**

West, Eleanor Thielen, M.S.

The University of Arizona, 1992

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SPIRITUALITY AND TIME PERSPECTIVES
IN VIETNAM COMBAT VETERANS WITH
AND WITHOUT POST TRAUMATIC STRESS DISORDER:
A COMPARATIVE STUDY

by
Eleanor Thielen West

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A Thesis Submitted to the Faculty of the
COLLEGE OF NURSING
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE
In the Graduate College
THE UNIVERSITY OF ARIZONA

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STATEMENT BY AUTHOR

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DEDICATION

To my daughter, Jessica - you can never know the inspiration you are to me.

To Mom - you taught me to question the status quo, to strive towards my greatest potential.

To Dad - you taught me to consider all angles, to maintain a sense of humor no matter what life throws at me.

ACKNOWLEDGEMENTS

I would like to acknowledge the following persons for their valued contributions:

Dr. Pamela Reed - for her infinite patience in guiding me in my research endeavors from the first disorganized grains of thought to the finished product.

Dr. Carol Bluth - for her encouragement and support throughout my entire Master's program.

Dr. Lee Crosby - for her enthusiasm and personal interest in my research project.

Dr. Judith Forker - for sharing her love of nursing with me and for providing a shoulder to cry on p.r.n.

I would also like to thank the staff of Ward 5 at the Veterans Administration Medical Center for their willingness to share their own experiences in working with PTSD patients and for their ready acceptance of me as "one of the crew" over the past year.

Finally, I would like to thank those in the United States Air Force who made the choice of sponsoring me for an advanced degree in nursing.

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ABSTRACT

The purpose of this study was to compare spirituality and subjective sense of time passage between Vietnam combat veterans diagnosed with post traumatic stress disorder (PTSD) and those without PTSD. Rogers' Principle of Helicy provided a theoretical perspective for the study. The abrupt interactive repatterning that may occur under the extreme conditions of combat can be translated into compromised abilities of the combat veteran to assume an acceptable lifestyle once he is out of the combat situation. A population of 32 Vietnam combat veterans answered questionnaires regarding their perspectives on spirituality and subjective sense of time. It was hypothesized that these variables may differ significantly among Vietnam combat veterans with and without PTSD. Findings revealed a statistically significant difference in sense of time in Vietnam combat veterans with PTSD compared to those without PTSD. There was, however, no significant difference in spiritual perspective when these same groups were compared.

CHAPTER I
INTRODUCTION

More than eighteen years have passed since the end of the Vietnam War. For many of its veterans, however, the war continues in the form of Post Traumatic Stress Disorder (PTSD). According to the Diagnostic and Statistical Manual of Mental Disorders, Third Edition - Revised (DSM-III-R; American Psychiatric Association, 1987), PTSD is a phenomenon resulting from the experience of "an event that is outside the range of usual human experience and that would be markedly distressing to almost everyone..." (Figure 1). This global definition can hardly do justice to the terrifying and often life-threatening conditions many Vietnam combat veterans experienced on a daily basis. It is not surprising, therefore, that almost 19 years after the Vietnam War, combat veterans continue to seek treatment for the symptoms of PTSD.

Although it would be very difficult to state the exact numbers of veterans who have suffered from PTSD at some time in their lives, Kulka et al. (1990) estimated that as many as 829,000 Vietnam combat veterans exhibit symptoms of the disorder as defined by DSM-III-R criteria. Of the 3.14 million Vietnam veterans, this indicates that almost one-fourth of that population either have or continue to suffer from PTSD.

Diagnostic criteria for 309.89 Post-traumatic Stress Disorder	
A.	The person has experienced an event that is outside the range of usual human experience and that would be markedly distressing to almost anyone, e.g., serious threat to one's life or physical integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.
B.	The traumatic event is persistently reexperienced in at least one of the following ways: <ol style="list-style-type: none"> (1) recurrent and intrusive distressing recollections of the event (in young children, repetitive play in which themes or aspects of the trauma are expressed) (2) recurrent distressing dreams of the event (3) sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated) (4) intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma
C.	Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following: <ol style="list-style-type: none"> (1) efforts to avoid thoughts or feelings associated with the trauma (2) efforts to avoid activities or situations that arouse recollections of the trauma (3) inability to recall an important aspect of the trauma (psychogenic amnesia) (4) markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills such as toilet training or language skills) (5) feeling of detachment or estrangement from others (6) restricted range of affect, e.g., unable to have loving feelings (7) sense of a foreshortened future, e.g., does not expect to have a career, marriage, or children, or a long life
D.	Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following: <ol style="list-style-type: none"> (1) difficulty falling or staying asleep (2) irritability or outbursts of anger (3) difficulty concentrating (4) hypervigilance (5) exaggerated startle response (6) physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e.g., a woman who was raped in an elevator breaks out in a sweat when entering any elevator)
E.	Duration of the disturbance (symptoms in B, C, and D) of at least one month.
	Specify delayed onset if the onset of symptoms was at least six months after the trauma.

Figure 1. DSM-III-R Criteria for Post Traumatic Stress Disorder (American Psychiatric Association, 1987).

Nursing concerns itself with "the diagnosis and treatment of human responses to actual or potential health problems" (American Nurses Association, 1980). In the case of Vietnam combat veterans with PTSD, the human responses that nurses treat are indeed very intense and often frightening to the unprepared clinician who may find this population resistant to treatment and difficult to understand (Furey, 1982). With this in mind, an emphasis on nursing research in this area is necessary to facilitate the provision of quality nursing care that is highly sensitive to the unique needs of Vietnam combat veterans. This study focuses on two variables that may be relevant to the subjective experiences of combat veterans, spirituality and sense of time.

Background and Significance

To truly appreciate the development of PTSD among Vietnam combat veterans, one must consider the differences between the Vietnam War and previous wars. Conditions unique to Vietnam include:

1. The arrival and departure of troops to combat duty frequently without the support of peers;
2. Lack of emotional support from the American public in the later years of the war;
3. The abrupt transition from military to civilian life;
4. Difficulty in recognizing exactly who the enemy was (Sirois & Swift, 1987).

As one study participant explained, "I never knew who to trust, who was out to kill me. It could be an old woman or a little kid planted with a bomb. I learned pretty quickly never to let my guard down."

Obtaining some understanding of key subjective experiences as they may occur among persons with PTSD is imperative to the nurse working with this population in order to develop a treatment plan which will provide optimum benefits to the veteran. Symptoms may include anger, guilt, psychic numbing, hyperalertness, difficulty with sleep patterns, flashbacks, feelings of alienation, mistrust, difficulties with interpersonal relationships, cynicism, restlessness and depression (Horowitz, Wilner, Kaltreider & Alvarez, 1980).

Blair and Hildreth (1991) cited many obstacles the combat veteran must overcome for appropriate treatment: public attitudes towards mental illness, resistance among health care professionals, and cultural bias in regard to the nature of psychiatric casualties from warfare. The authors indicated also that Vietnam veterans were victims of political and social conditions of that time in addition to the war itself. As such, nurses treating this population must educate themselves as thoroughly as possible not only to the presenting symptoms of PTSD but also to possible etiologic factors to gain a greater sensitivity of the individual's disorder. It is for this reason that two

variables, sense of time and sense of spirituality, will be studied among this population.

Purpose

The purpose of this study is to compare spirituality and subjective sense of time passage between Vietnam combat veterans diagnosed with PTSD and those without PTSD. It is expected that there may be significant differences across the two groups on each of the two variables.

Conceptual Framework

Three Principles of Homeodynamics have been developed by Rogers from her conceptual system of the Science of Unitary Human Beings (Malinski, 1986). Of particular interest as a parallel perspective in this study is the Principle of Helicy, defined as "the continuous, innovative, probabilistic increasing diversity of human and environmental field patterns characterized by nonrepeating rhythmicities" (p. 194).

It is conceptualized that an alteration of the normal continuity of the human and environmental field patterns may occur under the extreme conditions of combat. Such an abrupt interactive repatterning may alter the veteran's ongoing process of change and diversity over time. This can be translated into compromised abilities of the combat veteran to assume an acceptable civilian lifestyle once he

is removed from the combat situation. What were considered normal reactions under battle conditions are now considered maladaptive in civilian society (Goderez, 1987). The nurse's challenge is to interact with the veteran in a manner that increases the possibility of repatterning beyond what is seen in veterans with PTSD.

Two variables that are viewed as being reflective of this break of field patterns are spiritual perspective and subjective sense of time. These variables are regarded as two potential indicators of the patterning of the human field in that they represent human experiences expressive of the person as a whole. As these are phenomena experienced subjectively by the individual, one may assume that they vary among groups who are characterized by certain significant personal life experiences. Repeated comments alluding to the meaning of life and the lack of intensity in daily life offered by veterans with PTSD, along with a perspective of mental health based on Rogers' (1970) model, have led to this examination of the potential significance of spiritual perspective and subjective sense of time in veterans with PTSD.

Spirituality

Spirituality is a subjective human experience defined in terms of personal behaviors and views that reflect a sense of relationship to something greater than the self

(Reed, 1987). Further, the concept is broader than that of religion. Clark, Cross, Deane and Lowry (1991) view spirituality as the integrating aspect of human wholeness, characterized by meaning and hope. Measurement of spirituality was accomplished in this study by the Spiritual Perspective Scale (Reed, 1986).

This investigator's experiences in working with combat veterans suffering from PTSD have revealed a common theme; the questioning of the presence of a greater power or force than the self. Bradshaw, Ohlde and Horne (1991) suggest that for many combat veterans, their war experiences were the most meaningful experiences of their lives and provided a key source of meaning and relatedness to a purpose greater than the self. Continuing to hold on to that particular source of meaning could become pathological if upon returning home the veteran was unable to adapt the warrior identity he had assumed in Vietnam to an appropriate peacetime identity; this, in turn, may contribute to varying degrees of PTSD (Bradshaw, et al., 1991). It is expected then that levels of spiritual perspective of Vietnam combat veterans with PTSD will differ from those of their peers without PTSD because of the ongoing inability to redefine a source of meaning for their civilian existence.

Sense of Time

According to Rogers (1970), "In the real world of

is preferable to the present may be reflective of a perceived lack of excitement in life. Thus, veterans with PTSD, for example, may be expected to perceive time as moving more slowly when compared with veterans without PTSD.

In this study, the Time Opinion Survey (TOS) (Kuhlen & Monge, 1968) was utilized to measure sense of time. Sense of time is specifically defined as a subjective temporal experience of passage of time, time orientation (past, present, future), and attitude about one's past, present, and future. Kuhlen and Monge (1968) proposed a positive relationship between sensed speed of time with degrees of subjective happiness, excitement in life, and future orientation. In this study, five dimensions of time indexed by subscales on the TOS were examined: Speed of time passage, future orientation and achievement, feelings of time pressure, ability to delay gratification, and attitudes about the present. These indicators together and separately may help to better understand PTSD veterans' subjective experiences of their lives as lacking intensity or excitement.

Research Questions

1. Is there a statistically significant difference in sense of spirituality between Vietnam combat veterans with and without PTSD?
2. Is there a statistically significant difference in

physical events, clock time is used to define time duration. However, time perception may vary noticeably from clock time, with a range of variables proposed as correlates of such variations....Persons report perceptions of time flying, of time dragging, of time standing still, of timelessness" (p. 115). Temporal concepts of a person change and develop over time as the person's context changes. These temporal experiences relate to one's subjective well-being and mental health (Fitzpatrick, 1980).

While working with combat veterans suffering from PTSD, a consistent theme emerged regarding life as being mundane now in relation to life in the combat situation. Goderez (1987) has found that many combat veterans only feel "alive" when they are involved in disruptive, risk-taking activities that leave survival to chance, situations which he described as "a direct reenactment of the combat experience" (p. 102). Further, he suggests that the high incidence of risk-taking behaviors among this population is the result of efforts to recreate the intense stimulation of combat with its accompanying state of increased physiological arousal, described by some veterans as a highly pleasurable experience. The perception or sense that life is boring may be indexed in terms of one's sense of the passage of time, and orientation to and attitudes toward one's past, present, and future. In other words, the sense that time is moving more slowly than as measured by the clock or that one's past

sense of time between Vietnam combat veterans with and without PTSD?

Summary

The impact of the Vietnam War on its veterans is particularly relevant today as health care professionals are recognizing and treating persons presenting with symptoms of PTSD. Awareness of symptomatology is one facet of effective treatment. Another includes possible reasons as to why the disorder develops in the first place. Two variables, time and spirituality, were studied to hopefully provide insight into the subjective experiences of combat veterans suffering from PTSD and thereby enabling the health care professional who works with this population a more thorough picture of treatment options.

CHAPTER II
REVIEW OF THE LITERATURE

Introduction and History

While the population of Vietnam veterans has been a subject of great interest to researchers in the years following the war, the development of PTSD symptomatology has not been exclusive to that war. The awareness of mental disorders as a major military medical problem has steadily evolved, particularly since the mid 19th century, paralleling the refinement of modern day psychiatry (Medical Department, United States Army, 1966). Prior to World War I soldiers who developed mental disorders as a result of combat were frequently judged as having had underlying psychological flaws leading to a lack of military discipline and cowardice (Figley, 1978). By the end of World War I, diagnoses of "shell shock" and combat or traumatic neuroses were attributed to being under artillery fire for a prolonged period of time. There was still the prevailing opinion that, although precipitated by events in combat, these disorders were the result of predisposing personality characteristics (Glass, 1969). This belief persisted through World War II and the Korean Conflict with a gradually increasing emphasis being placed on physical fatigue and exhaustion as playing a significant role in the development of mental disorders among men exposed to

prolonged combat (Figley, 1978). Our current knowledge regarding the development of PTSD has evolved over the years from several sources. The phenomenon has been studied from medical, behavioral, developmental and stress researchers' perspectives, to name a few, with emphasis being placed upon aspects common to the particular discipline of the researcher (Scrignar, 1988).

With the Vietnam War came a new generation of veterans returning with many similar manifestations of psychological disorders as had been observed from past combat experiences. These veterans, however, faced other circumstances very unique to Vietnam. Unlike previous wars, the military to civilian transition of Vietnam veterans was often abrupt. In addition, help in the adjustment period after coming home was not readily available and the veterans were often greeted with contempt rather than with national pride, if they were acknowledged at all. Furthermore, the support of the veterans' immediate peer groups did not exist as these men did not come home in groups but, instead, left the combat zones alone. As such, factors that are believed to lead to the development of PTSD were present for far more veterans of the Vietnam War than were present in earlier wars.

Prevalence of PTSD in Vietnam Combat Veterans

A pioneer study by Egendorf, Kadushin, Laufer, Rothbart

and Sloan (1981) , entitled "Legacies of Vietnam: Comparative Adjustment of Veterans and Their Peers", was undertaken to compare the post-war adjustment to civilian life of Vietnam veterans against that of their nonveteran counterparts. The study involved a random sample of 1,440 men and took eight years to complete. Each study participant went through a three to five-hour interview in which the following topics were discussed:

- 1) Educational and work careers;
- 2) Social and psychological problems of Vietnam veterans in the aftermath of the war;
- 3) Long term stress reactions;
- 4) How individual lives of Vietnam veterans were affected by the war.

As a result of this study, the following recommendations were made to the Veterans Administration:

1. Extend the period of eligibility for GI educational and training benefits.
2. Target manpower training programs to reach the chronically unemployed veteran.
3. Enlist employers and other private sector organizations in efforts to assist Vietnam veterans.
4. Continue to provide for outreach by well-trained veteran peer counselors.
5. Develop expertise in the area of post-traumatic disorders through focusing research, training and treatment innovations.

The National Vietnam Veterans Readjustment Study (NVVRS) mandated in 1983 by Congress as part of Public Law 98-160 was organized to establish "the prevalence and incidence of post-traumatic stress disorder and other psychological problems in readjusting to civilian life" among Vietnam veterans. The study, completed over four years' time, is considered to be the most rigorous and comprehensive study examining readjustment problems, including PTSD, among Vietnam Veterans to date (Kulka, et al., 1990).

Three goals were met with the NVVRS: 1) to provide information about incidence, prevalence and effects of PTSD and related psychological problems, 2) to provide a comprehensive description of the total life adjustment of Vietnam veterans, and 3) to provide detailed scientific information about PTSD. The sampling frame was compiled directly from military personnel records and included a total of 3,016 interviews from Vietnam veterans, veterans who served during that time but not in Vietnam, and nonveterans.

Findings from the study include:

1. Prevalence of PTSD Among Vietnam Veterans - 15.2% (479,000) of all male Vietnam veterans currently have cases of PTSD. In addition, another 11.1% of male Vietnam veterans currently suffer from partial PTSD, clinically significant stress reaction symptoms of insufficient intensity to qualify as full PTSD.

2. Prevalence of Other Postwar Psychological Problems Among Vietnam Veterans - these include affective disorders, anxiety disorders, substance-abuse disorders and antisocial personality disorder. Alcohol abuse (39.2%) and generalized anxiety disorder (14.1%) were the most prevalent psychological problems veterans reported that they have ever had, with 11.2% alcohol abuse and 4.5% generalized anxiety disorder reported to be in evidence currently.

3. Relationship Between PTSD and Other Postwar Psychological Problems - male Vietnam veterans with PTSD had significantly higher rates of both lifetime and current psychological problems for each specific category list in #2.

4. Relationship Between Service-Connected Disabilities and Postwar Psychological Problems - Vietnam veterans with service-connected disabilities are almost 50% more likely than those without service-connected disabilities to have PTSD today. In addition, those with service-connected disabilities are more likely to have a positive history of generalized anxiety disorder, to exhibit symptoms of nonspecific psychological distress, and to be dissatisfied with their current life situations.

5. Relationship Between Alcohol and Drug Abuse and Postwar Psychological Problems - veterans who have met the criteria for substance abuse or dependence at some time in their lives show significantly greater impairment on almost every

measure of postwar adjustment and psychological well-being than those who never became heavily involved with these substances.

To summarize the findings of the NVVRS allows one to focus on the larger picture of how Vietnam veterans are currently readjusting. Six significant findings from this study based on more than 3,000 persons indicated that: 1) 75% of Vietnam veterans have not reported PTSD symptoms, 2) 15% report significant PTSD symptoms as a result of Vietnam, 3) those who experienced actual combat suffer the most, 4) not all Vietnam veterans are at equal risk for experiencing PTSD, 5) those involved with troubled veterans have themselves become casualties, ie., loved ones have been affected by the ongoing problems of the Vietnam combat veteran, and 6) most affected veterans are not currently receiving treatment.

Laufer, Brett and Gallops (1985) evaluated symptom patterns associated with PTSD in 251 male Vietnam veterans exposed to war trauma. The purpose of their study was to evaluate the relationship between different traumatic stressors and rates of PTSD based on the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III; American Psychiatric Association, 1980) model for PTSD which predicts that war stressors will lead to rates of PTSD in which symptoms of re-experiencing and denial are represented equally, and a two-dimensional model which

hypothesizes that re-experiencing (repetitions of ideational, affective and/or somatic aspects of war trauma) and denial (efforts to avoid or defend against those repetitions) are two distinct dimensions of PTSD and that rates of PTSD will be associated with varying types of traumatic experiences.

They found that the two-dimensional model may more adequately define the range of PTSD. Analysis suggested that biases in the DSM-III criteria for PTSD could distort the identification of veterans suffering from varieties of PTSD and may lead to underestimation of prevalence of the disorder among Vietnam combat veterans.

Variables Associated with PTSD

A study designed to evaluate premilitary, military and combat exposure influencing factors associated with the development of PTSD, Foy, Rueger, Sipprelle and Carroll (1984) chose a sample of 43 Vietnam-era veterans who were seeking psychiatric services at a Los Angeles Veterans Administration. The purpose of the study was to evaluate the relative contributions of premilitary developmental events, military adjustment and extent of combat exposure to the development of PTSD and post military adjustment problems. Actively psychotic and primary substance-abuse patients were excluded from the study. Twenty one of the subjects were PTSD positive and 22 were PTSD negative.

Patients were categorized using a diagnostic scale which was constructed using items from a patient problem checklist and military history in order to objectively diagnose PTSD based on DSM-III criteria.

A very broad list of potential etiological variables were considered in this study. Among the premilitary adjustment variables were those considering parental relationships, educational level, disciplinary problems, substance use and interaction with peers. Variables studied under military adjustment included disciplinary actions while in service, alcohol and drug use, psychiatric contact, and number of service awards obtained.

A combat exposure scale was developed using items from the military history to place war-related events in order of increasing combat involvement. Postmilitary adjustment variables included marital status, mobility, frequency of job change and disciplinary problems.

It was found that extent of combat exposure and, to a lesser degree, military adjustment were more strongly associated with current PTSD symptomatology than was premilitary adjustment. Specifically, in one of two multiple regression analyses, the PTSD Summary Score was significantly predicted by a combination of the three predictor variables (combat exposure, military adjustment and premilitary adjustment), ($R=.54$, $p<.05$). The second multiple regression analysis revealed that post-military

adjustment was also significantly predicted by a combination of the same three predictor variables, ($R=.59$, $p<.01$).

The authors concluded that combat exposure and military adjustment are significantly related to PTSD symptomatology. Results, however, are limited to the small sample size ($N=43$) and restriction of the target population to veterans seeking psychiatric help. Another study by Card (1987) validated the idea of combat exposure being related significantly to PTSD and added also that in her study certain environmental variables, such as the presence of a spouse or being a churchgoer, were associated with decreased PTSD symptomatology or with a decrease in the degree of association between combat and PTSD.

Solkoff, Gray and Keill (1986) studied potential common characteristics of Vietnam combat veterans who develop PTSD. A comparison of 50 Vietnam combat veterans with PTSD to 50 Vietnam combat veterans without PTSD (total $N=100$) was accomplished through structured interviews, childhood and family histories, immediate preservice experiences, combat experiences, and post-discharge experiences. Three hypotheses were tested: 1) PTSD patients and controls will not differ significantly on predispositional, family or early experience variables, or on variables that immediately preceded entry into the service; 2) PTSD patients will have experienced more intense combat and will have been more involved in death and killing than the controls; 3) PTSD

patients will report more negative perceptions of their post-discharge experiences than will the controls.

Evaluation of the first hypothesis indicated significant differences in three areas: The PTSD patients reported significantly more negative attitudes toward school ($M=-.40$) than the controls ($M=.12$), $t(95)=-2.14$, $p<.0175$, and PTSD patients related a less strict religious upbringing ($M=.19$) than did the controls ($M=.71$), $t(83)=-2.03$, $p<.0225$. Also, the PTSD patients held a more positive attitude toward the Vietnam war ($M=.63$) than the control group ($M=.06$), $t(65)=2.37$, $p<.0105$.

There was a significant difference between the control group and the PTSD patients on many of the combat-related variables posed in the second hypothesis. These variables included perceived closeness to personal death, perceived closeness to deaths of others, personal involvement in killing, more friends killed, witnessing deaths of friends, length of time in combat, sustained combat injuries, survivor guilt, attitudes toward the South Vietnamese, and concern with events occurring at home. The third hypothesis was also supported in this study because the PTSD subjects reported significantly more negative post-discharge experiences than the controls.

Findings in this study are limited by the fact that 84% of the control group was identified through local Agent Orange screening procedures. This may represent a particularly dissatisfied group, as noted by the authors.

Mental Health Problems Accompanying PTSD

A study performed by Frye and Stockton (1982) found that more than ten years after returning from the Vietnam war many veterans still experience sleep disturbance, nightmares, startle reactions, intrusive thoughts, alienation from others, guilt feelings and decreased involvement with their external environments. These findings correlate with the characteristics and symptoms of chronic PTSD as outlined by Scrignar (1988). Scrignar goes on to state that chronic PTSD is also often associated with secondary depression which may actually become quite severe. Thoughts of suicide may become a distinct possibility. Episodes of aggression are more likely to occur when the veteran is currently experiencing excessive stress or is under the influence of alcohol or other drugs.

Hyer, Woods, McCranie and Boudewyns (1990) specifically addressed suicidal behavior among Vietnam veterans suffering from Chronic PTSD. The sample included 60 Vietnam veterans admitted to a PTSD unit at a VA Medical Center. Diagnosis was made according to DSM-III-R criteria. The subjects were divided into two groups based on presence of suicidal behavior; 29 were placed in a suicide group and 31 in a non-suicide group. Evaluations were based upon current symptoms, psychometric measures, military variables, adjustment factors and pre-military parental disciplinary patterns. Tools used for data collection included the

Structured Interview for PTSD, the Combat Exposure Scale, The MMPI (including the MMPI-PTSD scale), the Mississippi Scale for PTSD, the Vets Adjustment Scale, and 14 measures of early parental behavior.

Three significant differences were found between the groups. First, the suicide group experienced more negative paternal behaviors, particularly paternal inconsistency of love. Second, the suicide group exhibited distinctive symptom patterns, including excessive levels of emotional intensity and crying, and survivor guilt. Lastly, this group was cognitively confused, hypersensitive, and suspicious.

Summary

Investigators have studied a broad array of factors that could possibly predict the development of PTSD in combat veterans. The most prominent etiological predictor currently reflected in the literature appears to be that of degree of combat exposure. Other factors include premilitary and military adjustment variables.

Research endeavors are increasingly searching for potential common characteristics in Vietnam combat veterans who currently suffer from PTSD. To date, time perspective and spirituality have not specifically been studied in Vietnam combat veterans with PTSD. The purpose of this investigation was to provide insight into these subjective

experiences, as they may increase understanding of factors relevant to the mental health of Vietnam combat veterans.

CHAPTER III
METHODOLOGY

Research Design and Sample

A comparative descriptive design was used with a population of 32 Vietnam combat veterans to study potential differences related to spirituality and time perspectives. The sample consisted of two groups with 12 in the control group and 20 in the study group. The study group included Vietnam combat veterans who currently have PTSD symptoms, some of whom are seeking either inpatient or outpatient treatment for those symptoms. The control group included Vietnam combat veterans who do not currently exhibit symptoms of PTSD as defined by DSM-III-R criteria. Group placement was accomplished by means of the Mississippi Scale.

Subject selection for non-hospitalized Vietnam combat veterans was accomplished primarily by advertising in a local newspaper (Appendix A), inviting them to participate in the study. In addition, others became involved through word of mouth. Subjects who were hospitalized for PTSD at the time of data collection or who were receiving outpatient therapy for PTSD were invited by this investigator to participate in the study.

Criteria for participation in the study included the following: 1) All subjects were male; 2) they served as

enlisted members of active duty military service during the Vietnam war years of 1964-1973; 3) they were exposed to combat either directly by participation or indirectly through service as medical personnel who retrieved casualties from the battlefield. In addition to these criteria, the hospitalized veterans had no other psychiatric history reported in their charts other than substance abuse which often runs concurrently with a diagnosis of PTSD (Kulka, et al., 1990). Furthermore, they had no acute medical conditions concurrent with their PTSD diagnosis. The veterans in the community who responded to the newspaper ad or through word of mouth were not hospitalized at the time of data collection for any reason, medical or psychiatric.

Protection of Human Subjects

Written informed consent was obtained by all participants prior to their participation in the study (Appendix B). Prior to the initiation of data collection, approval for the project was obtained through the University of Arizona Human Subjects Committee followed by approval from the Tucson Veterans Administration Medical Center (Appendix C). The population being studied was considered to be "at risk" primarily because this investigator had access to the charts of those participants who were being treated for PTSD on an inpatient basis, and because it involved a potentially vulnerable group. There was minimal, if any, risk associated with participation in the study.

Instruments and Scoring

The instruments used for data collection included the Mississippi Scale for Combat-Related Post Traumatic Stress Disorder, the Time Opinion Survey, and the Spiritual Perspective Scale. Approvals for instrument use are included in Appendix D.

Mississippi Scale for Combat-Related Post Traumatic Stress

Disorder (MS). The Mississippi Scale is a 35-item self-report psychological assessment instrument developed by Keane, Caddell and Taylor (1986) from the DSM-III (1980) criteria for PTSD. In this study the MS was used to determine the presence or absence of PTSD in the subjects. It was the belief of this investigator that by using the MS with its proven reliability and ease of administration, it was an effective method in which to determine the subject groups.

A 5-point Likert scale is used in the MS. Items are summed to provide a continuous measure of PTSD severity, with possible scores ranging from 35 to 175. In a sample of 362 male Vietnam-era veterans who were seeking therapy for PTSD symptoms, the coefficient alpha, a measure of internal consistency for the entire scale, was found to be .94. The individual item-to-total score correlation was .58 ($p < .0001$) with a range of .23 to .73 (all p 's $< .0001$) (Keane, et al., 1988). Examples of items on the MS include:

1. Before I entered the military I had more close friends than I have now.
 1. Not at all true
 2. Slightly true
 3. Somewhat true
 4. Very true
 5. Extremely true

2. I do not feel guilt over things that I did in the military.
 1. Never true
 2. Rarely true
 3. Sometimes true
 4. Usually true
 5. Always true

The MS is scored by adding all items to obtain the total score. This could range from 35-175 with PTSD in evidence at the high end of the scale. Means for the three validation groups of PTSD (as determined by DSM-III), psychiatric disorder (PSYCH), and well-adjusted veterans (WAV) are:

PTSD: 130 (sd = 18)
PSYCH: 86 (sd = 26)
WAV: 76 (sd = 18)

Reliability analysis of the MS with the data collected in this study revealed a total alpha of .98 (N=32) which indicates a high level of internal consistency.

Time Opinion Survey (TOS). The Time Opinion Survey, developed by Kuhlen and Monge (1968), is a 16-item scale designed to measure the individual's subjective experience of time. The five general areas regarding sense of time included in the survey are speed of time passage, future orientation and achievement, feelings of time pressure, ability to delay gratification, and perception of present life conditions. A review of studies which have used the TOS does not indicate the instrument reliability. However, studies do reflect significant correlations between the TOS and variables under investigation in elderly populations (Fitzpatrick, 1980; Melillo, 1980; Strumpf, 1987). Examples of items included on the TOS are as follows:

2. Have you advanced as far as you had hoped by your present age?
 1. Much less rapidly than I had hoped
 2. Less rapidly than I had hoped
 3. As rapidly as I had hoped
 4. Even more rapidly than I had hoped

12. How fast does time seem to be passing now compared to ten years ago?
1. Much more slowly
 2. Somewhat more slowly
 3. About the same
 4. Somewhat more rapidly
 5. Much more rapidly

The TOS is scored by adding the values assigned to each item to obtain the total score. Separate scores on the five individual subscales can also be examined. However, for this study the subscales were of questionable significance because of the small sample size. Total scores can range from a minimum of 16 to a maximum of 64.

Reliability in terms of estimate of internal consistency were established in this study at $\alpha = .79$ (N=26).

Spiritual Perspective Scale (SPS). The Spiritual Perspective Scale was developed by Reed (1986) to measure the role of spirituality in an individual's life. This 10-item self-report instrument assesses individuals' perceptions of the importance of spiritual issues in their lives. Formerly called the Religious Perspective Scale (Reed, 1986), responses are based upon the extent to which the individual reports (through verbal and nonverbal

activities) that there is a sense of meaning and relatedness to a greater purpose in life. Reliability as measured by Cronbach's alpha is consistently above .90. The average inter-item correlations range from .54 to .60 and all item to total scale score correlations are greater than .60.

Examples of items included on the SPS are:

2. How often do you share with others the problems and joys of living according to your spiritual beliefs?

1. Not at all
2. Less than once a year
3. About once a year
4. About once a month
5. About once a week
6. About once a day

10. My spirituality is especially important to me because it answers many questions about the meaning of life.

1. Strongly disagree
2. Disagree
3. Disagree more than agree
4. Agree more than disagree
5. Agree
6. Strongly agree

Scores on the SPS are obtained by calculating the arithmetic mean across all items. Possible scores range from 1 to 6, 6 indicating a greater spiritual perspective. Reliability analysis of the SPS with the data collected in this study revealed a total alpha of .95 (N=30).

Procedure

After securing voluntary informed consent, subjects were asked to complete a questionnaire. All questionnaires were administered in the same order: Demographic information first, followed by the MS, the TOS and the SPS (Appendix E). In this way, questions proceeded from issues of lesser to greater sensitivity. The rationale for administering questionnaires in this fashion was to minimize response bias and anxiety.

All persons recruited for the study, inpatient as well as community, were given addressed, stamped envelopes in which to return their completed questionnaires to decrease the possibility of response bias and to assure confidentiality. Anonymity for all participants was maintained by using code numbers to identify questionnaires.

Data Analysis

The data analysis for this study included the use of descriptive statistics to examine patterns in the demographic data obtained from the study participants.

Research questions 1 and 2 were analyzed using the Mann-Whitney test to determine if there were significant differences between groups on each of the variables. The Mann-Whitney test is appropriate for analyzing uneven sample groups and indicates significant differences although direction of differences are not stated a priori as indicated by the research questions. Level of significance for data analysis was set at $p < .05$.

CHAPTER IV
FINDINGS

The purpose of this study was to compare spirituality and subjective sense of time passage between Vietnam combat veterans diagnosed with PTSD and those without PTSD. The study was conducted at a Veterans Administration Medical Center and in the community of a large southwestern city. The subjects (N=32) included male veterans who served as enlisted members of active duty military service and were exposed to combat during the Vietnam War. The subjects completed the Mississippi Scale (MS) to determine in which group they would be included, the Time Opinion Survey (TOS) to elicit the individual's subjective experience of time, and the Spiritual Perspective Scale (SPS) to measure the role of spirituality in the individual's life. A description of the sample, psychometric evaluation of the instruments, and findings related to the research questions will be discussed in this chapter.

Description of the Subjects

The 32 subjects who participated in the study met the subject inclusion criteria as outlined in Chapter One. The current ages of the subjects ranged from 40 to 56 years with a mean age of 44.7 and with a standard deviation of 3.3 years. Twenty-five (78.1%) were Caucasian, 4 (12.5%) were

Hispanic, 1 (3.1%) was Black, and 1 (3.1%) was Native American, with one subject (3.1%) not reporting ethnic background. Sixteen (50.0%) of the subjects were married, 10 (31.3%) were divorced and 3 (9.4%) were single, with 3 (9.4%) not reporting marital status. The mean current years of education among the subjects was 14.3 years with a range of 12 to 19 years, and a standard deviation of 2.0 years. Twenty (62.5%) of the subjects reported being employed, 11 (34.4%) being unemployed, and 1 (3.1%) reported being a student. Table 1 illustrates current employment status of the subjects in this study, differentiated by group.

The mean value of current religious involvement was 2.7, (S.D.=1.8), ranging from 1 to 7, with 1 representing no current religious involvement. The mean value of pre-Vietnam religious involvement reported by the subjects was 3.7 (S.D.=2.3). Ten (31.3%) of the subjects reported having been hospitalized at some time during their lives for psychiatric reasons, and 25 (78.1%) reported hospitalization at some time in their lives for medical reasons.

The Mann-Whitney test was chosen to analyze the research questions in this study. Although the t-test is slightly more powerful than the Mann-Whitney test (Burns & Grove, 1987), the assumption of normal distribution cannot be made with the sample in this study; given that the group sizes were unequal and the "N" for each group was small (N=12 and N=20), it was likely that there was a violation of

Table 1. Current Employment Status of Subjects Within the Non-PTSD Group (N=12) and the PTSD Group (N=20)

	Non-PTSD		PTSD	
	Frequency	%	Frequency	%
Employed	10	83.3	10	50.0
Unemployed	2	16.7	9	45.0
Student	0	0.0	1	5.0

the assumptions underlying the t-test. Therefore, the sample was considered nonparametric. As such, the Mann-Whitney test was the most powerful test available to analyze the sample obtained in the study.

Demographic data were analyzed in reference to the two subgroups represented in the sample, the Non-PTSD Group (N=12) and the PTSD Group (N=20). The subgroups were comparable on the variables of current age, years of education, current religious involvement, pre-Vietnam religious involvement, and subjective description of pre-Vietnam personality in terms of risk-taking behavior. In Table 2, the subgroup frequencies on these variables are listed.

The categorical demographic variables of race, marital status, health history and response to the question, "Have you experienced any life events that were significant to you and not connected to your service in Vietnam?", were analyzed in reference to the two sample subgroups as well. Ten (83.3%) of the subjects in the Non-PTSD Group were married in contrast to 6 (30.0%) in the PTSD Group. One (8.3%) subject in the Non-PTSD Group responded positively to the question, "Have you ever been hospitalized for psychiatric reasons?" This is in contrast to 9 (45%) of the PTSD Group who responded positively to the same question. Finally, the responses to the significant life events question yielded proportionately opposite results between

Table 2. Comparison of Selected Demographic Variables Within the Non-PTSD Group (N=12) and the PTSD Group (N=20)

	Non-PTSD			PTSD		
	Mean	S.D.	Range	Mean	S.D.	Range
Age	46.0	3.9	42-56	43.9	2.6	40-50
Years of Education	14.2	2.5	12-19*	14.3	1.7	12-18*
Current Religion(a)	2.9	2.1	1-7	2.6	1.7	1-5*
Pre-Vietnam Religion(a)	3.1	2.1	1-7	4.0	2.4	1-7
Pre-Vietnam Personality(b)	4.4	2.2	1-7	3.6	1.8	1-7

* 1 case not reported

(a) Range Possible = 1-7 with 1 indicating no religious involvement

(b) Range Possible = 1-7 with 1 indicating lowest level of perceived risk-taking behavior

the groups. Of the Non-PTSD Group, 4 (33.3%) reported a negative response and 8 (66.7%) reported a positive response, while in the PTSD Group 12 (60.0%) reported a negative response and 8 (40.0%) reported positively. Table 3 reflects the frequencies and percentages of the categorical data listed above.

An examination of military service variables revealed the mean age of the sample at the time of first tour of combat duty to be 20.0 years with a range of 17 to 26, standard deviation of 2.5 years. A breakdown into subgroups revealed the mean age of the Non-PTSD Group to be 20.6 years (S.D.=3.1) with a range of 17 to 26 years, and the mean age of the PTSD Group 19.6 years (S.D.=2.1), ranging from 18 to 26 years. All subjects (N=32) spent at least one tour of duty in Vietnam. In addition, five subjects (15.6%) reported doing two tours of duty in Vietnam and two (6.2%) did three. Twenty-one (65.6%) members of the sample were in the Army, eight (25.0%) were Marines and three (9.4%) reported being in the Navy. Table 4 contrasts branch of service and highest rank attained in service between the two groups.

Psychometric Evaluation of the Instruments

Reliability of the Mississippi Scale, the Spiritual Perspective Scale and the Time Opinion Survey were examined using Cronbach's alpha as an estimate of internal

Table 3. Frequency and Percentage of Selected Demographic Variables Within the Non-PTSD Group (N=12) and the PTSD Group (N=20)

	Non-PTSD		PTSD	
	Frequency	%	Frequency	%
<u>RACE</u>				
Caucasian	12	100.0	13	65.0
Hispanic	0	0.0	4	20.0
Black	0	0.0	1	5.0
Native American	0	0.0	1	5.0
Not reported	0	0.0	1	5.0
<u>MARITAL STATUS</u>				
Single	0	0.0	3	15.0
Married	10	83.3	6	30.0
Divorced	1	8.3	9	45.0
Not reported	1	8.3	2	10.0
<u>HEALTH HISTORY</u>				
(-) Psychiatric Hospitalization	11	91.7	11	55.0
(+) Psychiatric Hospitalization	1	8.3	9	45.0
(-) Medical Hospitalization	3	25.0	4	20.0
(+) Medical Hospitalization	9	75.0	16	80.0

Table 3. Continued

	Non-PTSD		PTSD	
	Frequency	%	Frequency	%
<u>SIGNIFICANT LIFE EVENTS UNRELATED TO VIETNAM</u>				
(-) Significant Life Events	4	33.3	12	60.0
(+) Significant Life Events	8	66.7	8	40.0

(-) = negative response to question

(+) = positive response to question

Table 4. Comparison of Branch of Service and Highest Rank Attained in Service Within the Non-PTSD Group (N=12) and the PTSD Group (N=20)

	Non-PTSD		PTSD	
	Frequency	%	Frequency	%
<u>BRANCH OF SERVICE</u>				
Army	10	83.3	11	55.0
Navy	0	0.0	3	15.0
Marines	2	16.7	6	30.0
<u>HIGHEST RANK ATTAINED</u>				
E-3	1	8.3	2	10.0
E-4	0	0.0	4	20.0
E-5	6	50.0	7	35.0
E-6	5	41.7	5	25.0
E-8	0	0.0	2	10.0

consistency. In addition, alpha coefficients for the five subscales of the Time Opinion Survey were analyzed. These include 1) Future Orientation and Achievement, 2) Feelings of Time Pressure, 3) Current Life Conditions, 4) Speed of Time Passage, 5) Delayed Gratification. Table 5 reflects the values obtained with the sample population.

Generally, all the instruments used in the study met acceptable criteria for internal consistency. Coefficient values between .80 and .90 are desired for a mature scale, and between .70 and .90 for a new scale. These coefficients indicate that an instrument will reflect more accurately the minute differences in levels of highly abstract concepts (Burns & Grove, 1987). Alpha coefficient values for the five subscales of the Time Opinion Survey were listed in Table 5 as well, although there were too few items listed in each subscale to reach reliable levels of consistency within the subscales.

The correlation coefficient between the Mississippi Scale score and type of group was .81, $p=.00$, indicating that those in the PTSD Group scored higher on the Mississippi Scale than those in the Non-PTSD Group. This adds support to the validity of the scale for this study.

Research Question One

The first research question addressed whether or not there was a difference in subjective sense of spirituality

Table 5. Cronbach's Alpha Coefficients for the Mississippi Scale, the Spiritual Perspective Scale, and the Time Opinion Survey with its Five Subscales

	Alpha	Standardized Alpha
MS (N=32)	.9794	.9800
SPS (N=30)	.9454	.9459
TOS (N=26)	.7692	.7829
FUTOA	.3652	.3599
TIME	.8163	.8194
LIFE	.6523	.8641
PASSAGE	.7832	.7886
GRAT	.3974	.4569

MS = Mississippi Scale

SPS = Spiritual Perspective Scale

TOS = Time Opinion Survey

FUTOA = Future Orientation and Achievement

TIME = Feelings of Time Pressure

LIFE = Current Life Conditions

PASSAGE = Speed of Time Passage

GRAT = Delayed Gratification

between Vietnam combat veterans with and without PTSD. There was no statistically significant difference in subjective sense of spirituality between Vietnam combat veterans with and without PTSD, with $U=106$ ($p=.76$). The mean SPS score in the Non-PTSD Group was 38.25 (S.D.=13.38) and in the PTSD Group it was 36.00 (S.D.=14.08).

Research Question Two

The second research question addressed whether or not there was a difference in subjective sense of time between Vietnam combat veterans with and without PTSD. There was a statistically significant difference in subjective sense of time between Vietnam combat veterans with and without PTSD ($U=62.5$, $p=.02$). The mean TOS score in the Non-PTSD Group was 29.58 (S.D.=5.49) and in the PTSD Group it was 21.45 (S.D.=10.86).

Additional Findings

Pearson's product-moment correlations conducted within each group revealed no significant relationship between demographic characteristics and the study variables. It was found, however, that Vietnam combat veterans in the PTSD Group tended to have sought psychiatric care for their symptoms ($r=.38$, $p=.03$).

Among the five Time Opinion Survey subscales, there was a significant negative correlation between group assignment

and Current Life Conditions ($r=-.55$, $p=.00$). This suggested that those in the PTSD Group perceived their present life conditions more negatively than the Non-PTSD Group. The Speed of Time Passage subscale revealed $r=-.32$ ($N=31$), $p=.08$, indicating a trend towards significance. This negative correlation suggested that those in the PTSD Group perceived time as passing more slowly than did those in the Non-PTSD Group. Table 6 reflects means, standard deviations and differences between the means (t values) of the five Time Opinion Survey subscales.

Summary

Findings indicated a significant difference in subjective sense of time in Vietnam combat veterans with PTSD in comparison to those without PTSD. Specifically, those with PTSD perceived their present life conditions in a significantly more negative light than did those veterans without PTSD. In addition, there was a tendency to perceive time as passing more slowly in the PTSD Group when compared to the Non-PTSD Group. There was, however, no significant difference in spiritual perspective when these same groups were compared.

Table 6. Means, Standard Deviations and Differences Between the Means (t values) of the Five Time Opinion Survey Subscales

	Non-PTSD		PTSD		<u>t</u>
	Mean	S.D.	Mean	S.D.	
FUTOA	10.83	2.82	10.15	4.78	.45
TIME	5.33	2.43	5.45	3.09	-.11
LIFE	11.33	1.78	6.40	4.49	3.62*
PASSAGE	5.75	1.22	4.26	2.66	1.81
GRAT	5.17	1.19	4.20	1.85	1.61

* indicates significance at $p < .05$

FUTOA = Future Orientation and Achievement

TIME = Feelings of Time Pressure

LIFE = Current Life Conditions

PASSAGE = Speed of Time Passage

GRAT = Delayed Gratification

CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

A discussion of the findings that were generated when hypothesized relationships were tested between specific variables is presented in Chapter Five. Recommendations for further research and implications for nursing are also included.

Background and Purpose of the Research

Vietnam combat veterans were victims not only to the war itself but also to the prevailing political and social conditions at that time (Blair and Hildreth, 1991). To gain a greater sensitivity of PTSD, nurses who work with this patient population must thoroughly educate themselves to all aspects of the individuals who present for treatment, not only in PTSD symptomatology but also in the unique characteristics of this group. Greater sensitivity, in turn, will facilitate the provision of quality nursing care which focuses on the unique needs of Vietnam combat veterans.

A comparative descriptive design was used in this study to examine potential differences related to spirituality and time perspectives among Vietnam combat veterans with and without post traumatic stress disorder. Based upon Rogers' conceptual framework (Malinski, 1986), it was theorized that

an abrupt interactive repatterning, such as what may occur to a soldier under the extreme conditions of combat, may alter the veteran's ongoing process of change and diversity over time. Thus, as spirituality and sense of time are subjective human phenomena, it was thought that they may be indicators of the repatterning that is assumed to be represented in PTSD. It was proposed then that spirituality and sense of time may differ between Vietnam combat veterans with and without PTSD.

Discussion

While working with veterans with PTSD, this investigator has frequently heard two common themes: 1) The questioning of the presence of a greater power or force than the self, and 2) The perceived lack of excitement in daily life. From these themes two variables emerged as possible common subjective experiences of combat veterans suffering from PTSD.

The first research question addressed whether or not there was a difference in subjective sense of spirituality between Vietnam combat veterans with and without PTSD. It was thought that because of the frequent references to God or some other greater power in conversations with veterans with PTSD, these veterans were actively seeking, but had not yet necessarily found, a sense of spirituality in their lives. Therefore, assuming they had not yet defined their

own sense of spirituality, it was expected that the PTSD Group would score lower on the Spiritual Perspective Scale than did the Non-PTSD Group. Because the PTSD Group were perceived as actively searching for their own sense of belonging in a greater scheme and for answers as to why they had to go through their combat experiences, they were viewed as unsettled in this matter and perhaps angry or sad that they had not yet found peace within themselves regarding those experiences. The findings of this study did not support a significant difference between the two groups, although the mean SPS score for the PTSD Group was lower than that in the Non-PTSD Group. There could be several reasons for this lack of significant difference.

Perhaps the first thing that comes to mind is the small sample size used in this study ($N=32$). Indeed, there was a negative difference between the groups ($r=-.08$) as expected, but an acceptable level of significance was not obtained ($p=.66$). The sample size may not have been large enough to adequately detect differences in spiritual perspective between groups. Another consideration which is possible but not likely given the good psychometric properties of the instrument, may also include the fact that the Spiritual Perspective Scale was initially tested on over 400 adults of all ages, but it has never been specifically used with populations similar to the one outlined in this study. Perhaps a modified scale addressing issues specific to

combat veterans would yield different results. A final possibility is that the PTSD Group does not differ in spirituality level, only in their expression of spiritual needs.

The second research question addressed whether or not there was a difference in subjective sense of time between Vietnam combat veterans with and without PTSD. It was proposed that the veterans with PTSD would view their subjective experience of time as moving more slowly than veterans without PTSD because of reference commonly being made by those veterans that they enjoy high-risk activities because of the "adrenalin rush" they get from those activities (Goderez, 1987). As such, veterans with PTSD were expected to perceive time as moving more slowly when compared to veterans without PTSD.

The findings of this study did support a significant negative difference in subjective sense of time in Vietnam combat veterans with PTSD when compared to those without PTSD ($r=-.40$, $p=.02$). In addition, the Current Life Conditions subscale indicated a significant negative difference between groups which indicates that veterans with PTSD perceive their current life conditions less positively than veterans without PTSD. The other four subscales of the Time Opinion Survey revealed no significant differences between groups although differences noted were in the expected directions.

Referring once again to Rogers' Principle of Helicy (Malinski, 1986), it can be conceptualized that when there is an alteration in the normal continuity of the human and environmental field patterns as may occur in combat, an abrupt interactive repatterning takes place. Subjective sense of time, as measured in this study, was significantly different between the PTSD Group and the Non-PTSD Group. This finding lends support to the idea that differences in human field patterning (time perspective in this case) may be reflected in differences in mental health of human beings (i.e., having or not having PTSD). Indeed, time experience did serve to differentiate two groups of veterans (PTSD and Non-PTSD), both groups of which were characterized by the significant personal life experience of combat.

Other Findings

One point of interest while gathering the raw data for the study sample was that of the 40 veterans who took questionnaires to fill out, only 13 (32.5%) were undergoing inpatient treatment for PTSD or related issues at the time they received their questionnaires. The other 27 (67.5%) were from the community. Because of this, this investigator thought that there would be a very small PTSD Group in comparison to the Non-PTSD Group. In fact, the opposite turned out to be true. Of the 32 questionnaires used in the data analysis, 20 (62.5%) fell into the PTSD category as

determined by the responses given on the Mississippi Scale and the remaining 12 (37.5%) fell into the Non-PTSD Group. Whether the veterans were currently undergoing inpatient treatment for PTSD or related issues could not be determined by the demographic information provided. This might indicate, therefore, that there are many veterans currently experiencing PTSD symptoms who are not seeking or receiving inpatient treatment.

Another noteworthy observation made during data analysis was that of the 40 questionnaires distributed, 34 (85.0%) were actually returned. One (2.5%) was unusable because an entire page of the Mississippi Scale was missed by the respondent and another (2.5%) was returned after the raw data had been analyzed and, therefore, could not be used. Nevertheless, a total response rate of 85% is an indication that the veterans in this study had an active interest in the problem and in being included in the results. Indeed, each veteran had the opportunity to speak to this investigator about individual experiences he had while serving in Vietnam, which may have added to the incentive to participate.

Recommendations for Further Research

Several recommendations can be made for further research. First, the study should be replicated with a larger sample which would provide more accurate estimates of

reliability and more power to test the theorized differences between groups. A convenience sample yielded a disproportionate number of subjects assigned to the groups; 12 (37.5%) in the Non-PTSD Group and 20 (62.5%) in the PTSD Group. A more equal distribution between the groups and a larger sample size may yield different results by allowing the researcher to use parametric statistics.

Second, replication of the study using a longitudinal design might reveal significant changes in spiritual and time perspectives over a period of time. This is in contrast to the current study which measured respondents at only one point in time. This in turn could provide evidence for planning various treatment programs for individuals with PTSD.

Third, a study comparing subjective sense of time and spiritual perspective among comparable groups of veterans from different wars may provide insight into variables that influence mental health adjustment over increasing lengths of time in veterans suffering from chronic PTSD symptoms. Information gained from a study of this nature may provide insight into the course of the disorder over time, thus enabling care givers to modify treatment according to the predicted level of PTSD at the time the affected veteran seeks help.

Implications for Nursing

Nurses concern themselves with all aspects of the human being in developing an individualized plan of patient care. When working with persons in a mental health setting it is of particular importance for nurses to consider treatment issues from the patient's point of view. Vietnam combat veterans who enter the health care system for treatment of PTSD issues pose a unique challenge to the nurses who work with them. The literature on PTSD among Vietnam combat veterans reflects the exploration of many possible developmental and sociological factors contributing to PTSD development in some veterans. In this study, two variables - spirituality and subjective sense of time - were examined as possible contributing factors in the development of PTSD in this population.

While findings in this study did not reveal a significant difference between spiritual perspective of Vietnam combat veterans with PTSD as compared to those without PTSD, the fact still remains that many veterans with PTSD are concerned about the presence of a greater power or force than the self. For many, the most meaningful experiences of their lives were the experiences of war and these now provide a key source of relatedness to a purpose greater than the self (Bradshaw, Ohlde and Horne, 1991). Therefore, it continues to be an important aspect of the

individual that must not be overlooked in the development of a comprehensive plan of nursing care. Nurses may oftentimes tend to avoid spiritual issues with patients because of the intensely personal nature of the subject. In addition, nurses may have many unresolved spirituality issues within themselves which can cause a great deal of discomfort when discussing this very personal topic with their patients. Research findings in this area of human experience may provide nurses with more information and confidence to include spirituality in their patient care.

The study did reveal a significant difference between Vietnam combat veterans with and without PTSD when surveyed about subjective sense of time. Realizing that veterans with PTSD may indeed think differently than those without PTSD in regard to time perspective may give nurses a more comprehensive understanding of risk-taking behaviors that are seen not infrequently among Vietnam combat veterans who have PTSD (Goderez, 1987). Employment in high risk career fields, antisocial behavior tendencies and substance abuse problems that occur among Vietnam combat veterans may be related to a need for excitement and increased sense of time passage. With this understanding nurses can better develop a plan of care from the patient's perspective in an effort to institute more effective relief of symptoms in this population.

Summary and Conclusions

Many years have passed since the end of the Vietnam War and yet American society has been deeply and permanently changed by the continuing problems of this generation of veterans. The hardships encountered by Vietnam combat veterans upon returning home from the war have remained for many of them in a chronic form of post traumatic stress disorder. Many theories have been generated regarding the nature of PTSD but, as is the case in so many studies involving human beings, no one definite response can be made to answer the question, "Why does PTSD develop in some combat veterans and not in others?" While working with veterans with PTSD, the questioning of the presence of a greater power or force than the self and the perceived lack of excitement in daily life are two variables that have been presented as possible common subjective experiences of combat veterans suffering from this disorder.

In this study, a significant difference was found in subjective sense of time between Vietnam combat veterans with and without PTSD. Time to the Vietnam combat veterans with PTSD was perceived as passing more slowly in comparison to those without PTSD. However, no significant difference could be determined by the data analysis of this same sample of veterans in regard to spiritual perspective. Further research must be performed before the conclusions of this study can be generalized to the entire population of Vietnam

combat veterans suffering from PTSD. It is the belief of this investigator that increased insight by health care professionals in these areas will facilitate a more comprehensive picture of treatment options.

APPENDIX A

NEWSPAPER ADVERTISEMENT

VIETNAM COMBAT VETERANS

If you were enlisted in military service during the Vietnam War years of 1964-1973 and participated in combat, you are invited to take part in a nursing study of Vietnam Combat Veterans. Interested persons should be in good health. If you would like to participate in this study, call:

Eleanor West, R.N.

577-6656

for further information

APPENDIX B

SUBJECT'S CONSENT

SPIRITUAL PERSPECTIVE AND SENSE OF TIME
AMONG VIETNAM COMBAT VETERANS

SUBJECT'S CONSENT

I AM BEING ASKED TO READ THE FOLLOWING MATERIAL TO ENSURE THAT I AM INFORMED OF THE NATURE OF THIS RESEARCH STUDY AND OF HOW I WILL PARTICIPATE IN IT, IF I CONSENT TO DO SO. SIGNING THIS FORM WILL INDICATE THAT I HAVE BEEN SO INFORMED AND THAT I GIVE MY CONSENT. FEDERAL REGULATIONS REQUIRE WRITTEN INFORMED CONSENT PRIOR TO PARTICIPATION IN THIS RESEARCH STUDY SO THAT I CAN KNOW THE NATURE AND THE RISKS OF MY PARTICIPATION AND CAN DECIDE TO PARTICIPATE OR NOT PARTICIPATE IN A FREE AND INFORMED MANNER.

The purpose of this project is to study spirituality and time perspectives in Vietnam combat veterans. I am being invited to voluntarily participate in the above-titled research project because I am a Vietnam combat veteran. Approximately 40 subjects will be enrolled in this study. Findings from this study will be useful in helping nurses better understand the mental health needs of Vietnam veterans who come to them for care.

If I agree to participate, I will be asked to agree to the following: Answer a questionnaire relating to demographic information, experiences I've had after returning home as a veteran, time perception, and spiritual perspective. There is slight risk only that some of the questions on the questionnaire may increase anxiety minimally. There are no benefits to be derived by me from this study. Confidentiality will be maintained through the use of code numbers in the upper right-hand corner of each set of questionnaires. There will be no connection between my name and the code number on the questionnaire given to me.

The investigator will be happy to answer questions I may have about this project. Although it would be appreciated if I complete all the questions, I may withdraw from the study at any time.

BEFORE GIVING MY CONSENT BY SIGNING THIS FORM, THE METHODS, INCONVENIENCES, RISKS, AND BENEFITS HAVE BEEN EXPLAINED TO ME AND MY QUESTIONS HAVE BEEN ANSWERED. I UNDERSTAND THAT I MAY ASK QUESTIONS AT ANY TIME AND THAT I AM FREE TO WITHDRAW FROM THE PROJECT AT ANY TIME WITHOUT CAUSING BAD FEELINGS OR AFFECTING MY MEDICAL CARE. MY PARTICIPATION IN THIS PROJECT MAY BE ENDED BY THE INVESTIGATOR OR BY THE SPONSOR FOR REASONS THAT WOULD BE EXPLAINED. NEW INFORMATION DEVELOPED DURING THE COURSE OF THIS STUDY WHICH MAY AFFECT MY WILLINGNESS TO CONTINUE IN THIS RESEARCH PROJECT WILL BE GIVEN TO ME AS IT BECOMES AVAILABLE. I UNDERSTAND THAT THIS CONSENT FORM WILL BE FILED IN AN AREA DESIGNATED BY THE HUMAN SUBJECTS COMMITTEE WITH ACCESS RESTRICTED TO THE PRINCIPAL INVESTIGATOR, ELEANOR T. WEST, OR AUTHORIZED REPRESENTATIVE OF THE NURSING DEPARTMENT. I UNDERSTAND THAT I DO NOT GIVE UP ANY OF MY LEGAL RIGHTS BY SIGNING THIS FORM. A COPY OF THIS SIGNED CONSENT FORM WILL BE GIVEN TO ME.

Subject's Signature

Date

I have carefully explained to the subjects the nature of the above project. I hereby certify that to the best of my knowledge the person who is signing this consent form understands clearly the nature, demands, benefits, and risks involved in his participation and his signature is legally valid. A medical problem or language or educational barrier has not precluded this understanding.

Signature of Investigator

Date

APPENDIX C

HUMAN SUBJECTS APPROVAL

AGENCY APPROVAL

Human Subjects Committee



1690 N. Warren (Bldg. 526B)
Tucson, Arizona 85724
(602) 626-6721 or 626-...

December 12, 1991

Eleanor Thielen West, BSN
5800 N. Kolb Road #12164
Tucson, Arizona 85714

**RE: A COMPARATIVE STUDY OF SPIRITUALITY AND TIME PERSPECTIVES IN
VIETNAM COMBAT VETERANS WITH AND WITHOUT POST TRAUMATIC STRESS
DISORDER**

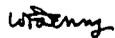
Dear Ms. West:

We received documents concerning your above cited project. Regulations published by the U.S. Department of Health and Human Services [45 CFR Part 46.101(b)(3)] exempt this type of research from review by our Committee.

Please be advised that approval for this project and the requirement of a subject's consent form is to be determined by your department.

Thank you for informing us of your work. If you have any questions concerning the above, please contact this office.

Sincerely yours,


William F. Denny, M.D.
Chairman,
Human Subjects Committee

WFD:sj

cc: Departmental/College Review Committee

College of Nursing

Tucson, Arizona 85721
(602) 626-6154

MEMORANDUM

TO: Eleanor Thielen West, B.S.N.

FROM: Leanna Crosby, D.N.Sc., R.N., Director of Intramural Research *Leanna Crosby*

DATE: December 16, 1991

SUBJECT: Human Subjects Review "A Comparative Study of Spirituality and Time Perspectives in Vietnam Combat Veterans with and without Post Traumatic Stress Disorder"

Your research project has been reviewed and approved by William Denny, M.D., Chairman of the University of Arizona Human Subjects Committee, and deemed to be exempt from review by their full committee. You will be receiving a confirmation letter from Dr. Denny. In addition, your project has been reviewed and approved as exempt by the College of Nursing Human Subjects Review Committee. At the completion of your research, please bring your signed consent forms to the Office of Nursing Research.

We wish you a valuable and stimulating experience with your research.

LC/ga

DEPARTMENT OF
VETERANS AFFAIRS

Memorandum

Date: February 13, 1992

From: ACOS/Research Service (151)

Subj: 0001 - COMPARATIVE STUDY OF SPIRITUALITY & TIME PERSPECTIVES IN VIETNAM COMBAT VETERANS WITH AND WITHOUT POST TRAUMATIC STRESS DISORDER

To: Judy Forker, Ph.D. (118)

1. Your protocol has been reviewed and granted administrative approval. The full R&D Committee will meet on February 26, 1992. You will be notified of their decision.

2. The study may begin as soon as an initial report is filed with the Research Office. A new report form (Form 10-1436) is attached. It requires coded information for which a code sheet is provided. Items for Project Uses and Research Focus are included. All items are to be completed except in the case when the co-principal investigator is not a VA investigator. If your co-principal investigator has not completed paperwork to be entered into the research data base, including him/her would cause a computer reject. Also, please include a minimum of three key words. The abstract should consist of the plan, methodology, objectives, and progress, if any, in 500 words or less. Thereafter, reports are due annually, on the anniversary date. Final reports are due upon cessation of the study for any reason.



Murray A. Katz, M.D.

Attachment

APPENDIX D

APPROVALS FOR USE OF INSTRUMENTS



DEPARTMENT OF VETERANS AFFAIRS
Medical Center
150 South Huntington Avenue
Boston MA 02130

In Reply Refer To

National Center of PTSD

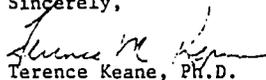
October 29, 1991

Eleanor T. West
5800 N. Kolb Rd. #12164
Tucson, AZ 85715

Dear Eleanor:

I have received your request for my permission to use the Mississippi Scale for Combat-Related PTSD in conjunction with your graduate thesis. Please feel free to use it. I am enclosing a copy of the Mississippi Scale and scoring instructions in case you do not already have them. I wish you luck in your endeavors and feel free to make any inquiries or requests in the future. I would appreciate it if you would keep us abreast of your results. Thank you very much.

Sincerely,


Terence Keane, Ph.D.
Director
National Center for PTSD
Behavioral Science Division

Request Form

I request permission to copy the Spiritual Perspective Scale (SPS) for use in my research entitled, COMPARATIVE STUDY OF SPIRITUALITY AND TIME PERSPECTIVE IN VIETNAM COMBAT VETERANS WITH AND WITHOUT POST TRAUMATIC STRESS DISORDER

In exchange for this permission, I agree to submit to Dr. Reed a copy of the following:

1. An abstract of my study purpose and findings, especially which includes the correlations between the SPS scale scores and any other measures used in my study. (This will be used by Dr. Reed to assess construct validity).
2. The reliability coefficient as computed on the scale from my sample (Cronbach's alpha).
3. A copy of the one-page scoring sheet for each subject tested.
4. My data coding dictionary (if data are sent on disk).

Any other information or findings that could be helpful in assessing the reliability or validity of the instrument would be greatly appreciated (e.g. problems with items, comments from subjects, other findings).

This data will be used to establish a normative data base for clinical populations. No other use will be made of the data submitted. Credit will be given to me in reports of normative statistics that make use of the data I submitted for pooled analyses.

Eleanor J. West
(Signature)

Position and Full Address

MSN Candidate

5800 N. Kolb Rd. #12164

Tucson, AZ 85715

Permission is hereby granted to copy the SPS for use in the research described above.

Pamela G. Reed
Pamela G. Reed

November 13, 1991
(Date)

Please send two signed copies of this form, and a self-addressed, stamped envelope to:

Pamela G. Reed, Ph.D., R.N.
College of Nursing
University of Arizona
Tucson, Arizona 85721

APPENDIX E

DEMOGRAPHIC DATA
MISSISSIPPI SCALE
TIME OPINION SURVEY
SPIRITUAL PERSPECTIVE SCALE

Participant # _____

BACKGROUND INFORMATION

1. Current age: _____ Race: _____
2. Marital status: Single Married Divorced Widowed
3. Current years of education: _____
4. Current type of employment: _____
5. Current religious involvement:
(none) 1 2 3 4 5 6 7 (very involved)
6. Pre-Vietnam religious involvement:
(none) 1 2 3 4 5 6 7 (very involved)
7. Age at time of Vietnam combat duty: _____
8. Branch of Service: Army Navy Marines Air Force
Other: _____
9. Highest grade held (ex. E-4): _____
10. Dates of Vietnam combat duty (mo/yr): _____
11. Primary job while in service: _____
12. Have you ever been hospitalized for psychiatric reasons? Yes No
If so, what was your diagnosis? _____
13. Have you ever been hospitalized for medical reasons? Yes No
If so, what was your diagnosis? _____
14. Have you experienced any negative life events that were significant to you and not connected to your service in Vietnam? If so, what?

15. How would you describe your personality prior to Vietnam in terms of risk-taking behavior?
(no risk) 1 2 3 4 5 6 7 (high risk)

The Mississippi Scale

Terence M. Keane, Juesta M. Caddell, & Kathryn L. Taylor
 Psychology Service (116B)
 VA Medical Center
 Boston, Massachusetts 02130
 Copyright 1986

CIRCLE THE NUMBER THAT BEST DESCRIBES HOW YOU FEEL ABOUT EACH STATEMENT

1. Before I entered the military I had more close friends than I have now.

1	2	3	4	5
NOT AT ALL TRUE	SLIGHTLY TRUE	SOMEWHAT TRUE	VERY TRUE	EXTREMELY TRUE

2. I do not feel guilt over things that I did in the military.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	USUALLY TRUE	ALWAYS TRUE

3. If someone pushes me too far, I am likely to become violent.

1	2	3	4	5
VERY UNLIKELY	UNLIKELY	SOMEWHAT LIKELY	VERY LIKELY	EXTREMELY LIKELY

4. If something happens that reminds me of the military, I become very distressed and upset.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

5. The people who know me best are afraid of me.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	VERY FREQUENTLY TRUE

6. I am able to get emotionally close to others.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

7. I have nightmares of experiences in the military that really happened.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

8. When I think of some of the things that I did in the military, I wish I were dead.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	VERY FREQUENTLY TRUE

9. It seems as if I have no feelings.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	VERY FREQUENTLY TRUE

10. Lately, I have felt like killing myself.

1	2	3	4	5
NOT AT ALL TRUE	SLIGHTLY TRUE	SOMEWHAT TRUE	VERY TRUE	EXTREMELY TRUE

11. I fall asleep, stay asleep and awaken only when the alarm goes off.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

12. I wonder why I am still alive when others died in the military.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

13. Being in certain situations makes me feel as though I am back in the military.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

14. My dreams at night are so real that I waken in a cold sweat and force myself to stay awake.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

15. I feel like I cannot go on.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMETIMES TRUE	VERY TRUE	ALMOST ALWAYS TRUE

16. I do not laugh or cry at the same things other people do.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMEWHAT TRUE	VERY TRUE	EXTREMELY TRUE

17. I still enjoy doing many things that I used to enjoy.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	VERY TRUE	ALWAYS TRUE

18. Daydreams are very real and frightening.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	VERY FREQUENTLY TRUE

19. I have found it easy to keep a job since my separation from the military.

1	2	3	4	5
NOT AT ALL TRUE	SLIGHTLY TRUE	SOMEWHAT TRUE	VERY TRUE	EXTREMELY TRUE

20. I have trouble concentrating on tasks.

1	2	3	4	5
NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	VERY FREQUENTLY TRUE

21. I have cried for no good reason.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

22. I enjoy the company of others.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

23. I am frightened by my urges.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

24. I fall asleep easily at night.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

25. Unexpected noises make me jump.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

26. No one understands how I feel, not even my family.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMEWHAT TRUE	VERY TRUE	EXTREMELY TRUE

27. I am an easy-going, even-tempered person.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	USUALLY	VERY MUCH SO

28. I feel there are certain things that I did in the military that I can never tell anyone, because no one would ever understand.

1	2	3	4	5
NOT AT ALL TRUE	SLIGHTLY TRUE	SOMEWHAT TRUE	TRUE	VERY TRUE

29. There have been times when I used alcohol (or other drugs) to help me sleep or to make me forget about things that happened while I was in the service.

1	2	3	4	5
NEVER	INFREQUENTLY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

30. I feel comfortable when I am in a crowd.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	USUALLY	ALWAYS

31. I lose my cool and explode over minor everyday things.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	VERY FREQUENTLY

32. I am afraid to go to sleep at night.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	ALMOST ALWAYS

33. I try to stay away from anything that will remind me of things which happened while I was in the military.

1	2	3	4	5
NEVER	RARELY	SOMETIMES	FREQUENTLY	ALMOST ALWAYS

34. My memory is as good as it ever was.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMEWHAT TRUE	USUALLY TRUE	ALMOST ALWAYS TRUE

35. I have a hard time expressing my feelings, even to the people I care about.

1	2	3	4	5
NOT AT ALL TRUE	RARELY TRUE	SOMETIMES TRUE	FREQUENTLY TRUE	ALMOST ALWAYS TRUE

TIME OPINION SURVEY

(Please check the best answer for you.)

1. How important to you is advancement or "getting ahead" in your career?
 of little or no importance
 slightly important
 fairly important
 extremely important
2. Have you advanced as far as you had hoped by your present age?
 even more rapidly than I had hoped
 as rapidly as I had hoped
 less rapidly than I had hoped
 much less rapidly than I had hoped
3. Is there an important objective(s) or goal(s) that you want to achieve, within the next ten or fifteen years?
 no
 yes, but the objective(s) is not very important
 yes, a rather important objective(s)
 yes, an extremely important objective(s)
4. Do you have a feeling that "time" is running out or that there is a certain urgency with respect to time in the achievement of any major goals or hopes?
 no
 yes, but only slightly so
 yes, somewhat so
 yes, very much so
5. About how long do you think it will take to obtain or accomplish what you want in life?
 have already achieved it
 am just now achieving what I want
 another five years
 another ten years
 another twenty years or more

6. How much thinking do you do about things you want to do or accomplish in the future versus events and satisfying experiences you have had in the past? Check the phrase that best describes you.

much more thinking about the past than the future
 somewhat more thinking about the past than the future
 the present dominates my thinking much more than either the future or the past
 about equally divided between future, present, and past
 somewhat more thinking about the future than the past
 much more thinking about the future than the past

7. About how many hours of spare time (in which you are free to "loaf" or do whatever you please) do you have in a typical week? Estimate as accurately as you can, including all seven days of the week in your total figure. Check the figure that comes closest to your estimate.

<input type="checkbox"/> 0-4 hours	<input type="checkbox"/> 30-34 hours
<input type="checkbox"/> 5-9 hours	<input type="checkbox"/> 35-39 hours
<input type="checkbox"/> 10-14 hours	<input type="checkbox"/> 40-44 hours
<input type="checkbox"/> 15-19 hours	<input type="checkbox"/> 45-49 hours
<input type="checkbox"/> 20-24 hours	<input type="checkbox"/> 50-54 hours
<input type="checkbox"/> 25-29 hours	<input type="checkbox"/> 55-60 hours
	<input type="checkbox"/> 60 hours or more

8. Do you have enough free time to do the things you want to do?

always or almost always
 usually
 sometimes
 no, hardly ever
 no, never

9. To what degree do you feel under time pressure in your current living?

rarely or never
 only occasionally
 sometimes
 frequently
 almost all of the time

10. How would you describe your life during the past year?

- extremely boring
 somewhat boring
 in-between, neither particularly exciting nor boring
 somewhat exciting
 extremely exciting

11. How rapidly does time seem to pass for you now?

- extremely slowly
 fairly slowly
 neither rapidly nor slowly
 fairly rapidly
 extremely rapidly

12. How fast does time seem to be passing now compared to ten years ago?

- much more slowly
 somewhat more slowly
 about the same
 somewhat more rapidly
 much more rapidly

13. How would you rate your present happiness? Use the following 11-point scale and encircle one number.

1	2	3	4	5	6	7	8	9	10	11
Extremely				Average						Extremely
Unhappy				Happiness						Happy

14. If a wealthy relative of yours offered you a gift of \$1,000 now or \$5,000 five years from now, which would you accept?

- accept the \$1,000 now
 take nothing now but accept the \$5,000 five years from now

15. A friend of yours of your own age has had two jobs offered to him. One job has a relatively good starting salary, but little promise of advancement or better income. The other job offers a starting salary which is considerably lower but with the possibility of substantial advancement and much higher later income. Which job would you advise him to accept?

- the job starting with a higher immediate salary
 the job starting with a lower immediate salary, but with the possibility of much better later income

16. Taking everything into consideration so as to arrive at an overall judgment of yourself, which of the following statements best describes you?

- I have a very strong tendency to enjoy myself today and let the future take care of itself
- While not a very strong tendency, I am somewhat inclined to live for today, and to pay little attention to the future
- I believe I balance about evenly between stressing present and future satisfaction in life
- I am somewhat inclined to deprive myself at present for the sake of greater satisfaction later
- I am very much inclined to deprive myself at present for the sake of greater satisfaction later

SPIRITUAL PERSPECTIVE SCALE

Introduction and Directions: A person's spiritual views may be an important part of their life. In general, spirituality refers to an awareness of one's inner self and a sense of connection to a higher being, nature, others, or to some purpose greater than oneself. I am interested in your response to the questions below. There are no right or wrong answers, of course. Answer each question to the best of your ability by marking an "X" in the space above that group of words which best describes you.

1. In talking with your family or friends, how often do you mention spiritual matters?

Not at all	Less than once a year	About once a year	About once a month	About once a week	About once a day
---------------	--------------------------	----------------------	-----------------------	----------------------	---------------------

2. How often do you share with others the problems and joys of living according to your spiritual beliefs?

Not at all	Less than once a year	About once a year	About once a month	About once a week	About once a day
---------------	--------------------------	----------------------	-----------------------	----------------------	---------------------

3. How often do you read spiritually-related material?

Not at all	Less than once a year	About once a year	About once a month	About once a week	About once a day
---------------	--------------------------	----------------------	-----------------------	----------------------	---------------------

4. How often do you engage in private prayer or meditation?

Not at all	Less than once a year	About once a year	About once a month	About once a week	About once a day
---------------	--------------------------	----------------------	-----------------------	----------------------	---------------------

Directions: Please indicate the degree to which you agree or disagree with the following statements by marking an "X" in the space above the words which best describe you.

5. Forgiveness is an important part of my spirituality.

Strongly Disagree	Disagree	Disagree more than agree	Agree more than disagree	Agree	Strongly Agree
----------------------	----------	--------------------------------	--------------------------------	-------	-------------------

6. I seek spiritual guidance in making decisions in my everyday life.

/	Strongly Disagree	/	Disagree	/	Disagree more than agree	/	Agree more than disagree	/	Agree	/	Strongly Agree	/
---	----------------------	---	----------	---	--------------------------------	---	--------------------------------	---	-------	---	-------------------	---

7. My spirituality is a significant part of my life.

/	Strongly Disagree	/	Disagree	/	Disagree more than agree	/	Agree more than disagree	/	Agree	/	Strongly Agree	/
---	----------------------	---	----------	---	--------------------------------	---	--------------------------------	---	-------	---	-------------------	---

8. I frequently feel very close to God or a "higher power" in prayer, during public worship, or at important moments in my daily life.

/	Strongly Disagree	/	Disagree	/	Disagree more than agree	/	Agree more than disagree	/	Agree	/	Strongly Agree	/
---	----------------------	---	----------	---	--------------------------------	---	--------------------------------	---	-------	---	-------------------	---

9. My spiritual views have had an influence upon my life.

/	Strongly Disagree	/	Disagree	/	Disagree more than agree	/	Agree more than disagree	/	Agree	/	Strongly Agree	/
---	----------------------	---	----------	---	--------------------------------	---	--------------------------------	---	-------	---	-------------------	---

10. My spirituality is especially important to me because it answers many questions about the meaning of life.

/	Strongly Disagree	/	Disagree	/	Disagree more than agree	/	Agree more than disagree	/	Agree	/	Strongly Agree	/
---	----------------------	---	----------	---	--------------------------------	---	--------------------------------	---	-------	---	-------------------	---

Do you have any views about the importance or meaning of spirituality in your life that have not been addressed by the previous questions?

Thank you very much for answering the questions

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