MEASURING VETERANS’ PSYCHOSOCIAL STATUS IN THE CONTEXT
OF GENERAL SELF-EFFICACY

by

JOHN B. DOHERTY

(Under the Direction of Nancy P. Kropf)

ABSTRACT

This study examined the relationships between older veterans’ psychosocial status, their perceived general self-efficacy and their use of health care services. This study will assist Department of Veterans Affairs (VA) social workers in assessing and helping veterans with significant psychosocial needs. It examined veterans’ self-reported physical, mental and social health. It also explored how they subjectively perceived their general self-efficacy in coping with challenges in different life domains. The sample consisted of 122 veterans age 60 and older. The study revealed significant relationships between these older veterans’ general self-efficacy and their physical, mental and social health. The study concludes by suggesting gerontological social work practice and research implications.

INDEX WORDS: Veterans, Older Veterans, General Self-Efficacy, Department of Veterans Affairs, Social Work, Gerontological Social Work, SF-36, Social Needs Checklist
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DEDICATION

This dissertation is dedicated to Sheila Faye Womack, my spouse.

“Love makes people believe in immortality because there seems not be room enough in life for so great a tenderness and it is inconceivable that the most masterful of our emotions should have no more than the spare moments of a few brief years.”

---Robert Louis Stevenson

My life with Sheila is a shared, wonderful, eternal tenderness, and so much more.

Thank you, Sheila. I love you forever and a day.
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Finally, I thank my late parents, Margaret M. and Cornelius E. Doherty.
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CHAPTER 1

VETERANS’ PSYCHOSOCIAL PROBLEMS
AND VA SOCIAL WORK’S RESPONSE

This study examines the relationship between older veterans’ psychosocial status, their perceived general self-efficacy and their use of the Department of Veterans Affairs (VA) health care services. The reason for studying this relationship stems from VA social workers’ need to expeditiously and efficiently assess older veterans’ psychosocial problems and to provide social work interventions for veterans who report minimal perceived general self-efficacy. This study uses the general self-efficacy construct to discern older veterans’ coping capacities and their need for social work intervention.

Older Veterans’ Psychosocial Problems

Like their counterparts in the general population, veterans age 60 and older face a variety of psychosocial problems. In this study, “psychosocial problems” are operationally defined as veterans’ physical, mental, social and environmental problems. Physical problems include but are not limited to the presence of disease or disability and difficulty in performing activities of daily living (ADLs); (Fillenbaum, 1995; Larson, 1997) and instrumental activities of daily living (IADLs); Kane, 1995). ADLs include bathing, dressing, toileting and eating. IADLs include using the telephone, shopping, managing money and taking medications. Mental problems include but are not limited to conditions that cause changes in mood, cognition or behavior that significantly impair normal functioning (American Psychiatric Association, 1994). Social problems include but are not limited to difficult family relationships, grief and personal isolation. Environmental problems include but are not limited to financial, nutritional,
employment and housing difficulties (Berkman, Shearer, Simmons, White, Robinson, Sampson, Holmes, Allison, & Thompson, 1996; Cook, Freedman, Freedman, Arick, & Miller, 1996).

Research has documented the extent of veterans' problems in each of these four life domains. First, the physical health of veterans age 60 and above is a cause for concern. The 2001 National Survey of Veterans reported that 66% of veterans age 65 and above have eye or vision problems, 50% have high blood pressure, 28% have heart problems, 37% have arthritis or rheumatism, and 19% have a hearing condition that requires a hearing aid. Other physical problems shared by large numbers of veterans age 65 and older are diabetes, severe chronic pain, lung trouble, digestive disorders and cancer (NSV, 2001). Ischemic heart disease and chronic heart failure are particularly prevalent (HSR&D Management, 2000). It is projected that the demand for medical care among veterans will continue to increase (Alessi, Josephson, Pietruska, Harker, & Rubenstein, 2000; Malphurs & Striano, 2001; Roswell, 2002).

Second, veterans’ mental health challenges include coping with depression, post-traumatic stress disorder (PTSD), substance abuse and other mental disorders. A representative study of 2,160 veteran outpatients in Boston revealed that 31% screened positively for depression, 20% for PTSD and 12% for alcohol abuse (Hankin, Spiro, Miller, & Kazis, 1999). The Department of Veterans Affairs’ (VA) Psychosis Registry reported that there were over 136,000 veterans service-connected for psychoses in fiscal year 1998 (Committee on SCMIV, 2000). Service connection is defined as “a VA decision that the veteran’s illness or injury was incurred in or aggravated during active military service” (VA Glossary, 2002). The number of veterans who commit suicide annually is estimated to be 8.17 per 100,000, but a paucity of data about veteran suicide leads researchers to suspect that the actual rate is higher (Lambert &
Fowler, 1997; Llorente, Olsen, Coakley, Cooley, Van Stone, Durai, Kirchner, Oslin, & Krahn, 2002; Thompson, Kane, Sayers, Brown, Coyne, & Katz, 2002).

Third, veterans age 60 and above cope with many social problems. These include financial, legal, and employment difficulties; homelessness; inadequate nutrition; personal and family stress; and personal isolation and grief. The negative effects of veterans’ social problems have been documented by a number of researchers (Applewhite, 1997; Berkman, et al., 1996; Cook, Freedman, Freedman, Arick, & Miller, 1996; Dove, Schneider, & Gitelson, 1985; Ghusn, Stevens & Attasi, 1998; Ren, Skinner, Lee, & Kazis, 1999). These negative effects include poverty, decreased life satisfaction, increased suicidality, and increased physical and mental illness.

Fourth, veterans’ environmental challenges include but are not limited to financial, legal and employment problems, as well as nutritional inadequacy, personal stress, relocation from or repairs to their homes, and inadequate access to transportation and basic community resources (i.e., physicians, supermarkets, senior citizen centers). Research has both described the extent of these environmental problems and offered suggestions for their resolution (Bascetta, 1999, 2002; Conrad & Hines, 2003; Cook, Freedman, Freedman, Arick & Miller, 1996; Fortney, Owen & Clothier, 1999; VA Homeless Program, 2001; Wellman, Rosenzweig, & Lloyd, 2002).

**VA Social Work’s Response to Older Veterans’ Psychosocial Problems**

Veterans must cope with various challenges in these four life domains of physical and mental health and social and environmental problems. VA social workers are responsible for helping veterans cope with their psychosocial problems (VA Mission, 2003). There is a clear need for effective social work assessment and intervention.
Social work assessment is operationally defined per Goldstein & Noonan (1999) as

.. the means of determining (1) the nature of the client's presenting problem and possible underlying difficulties; (2) what in the past or current person-situation configuration is contributing to the individual’s problems; (3) what is interfering with problem resolution; (4) what aspect of the problem is most amenable to change; and (5) what internal and external resources are available to help in solving the problem (p.59).

Social work interventions are operationally defined per the National Association of Social Workers’ (NASW, 2003) definition of social work practice, which is

the professional application of social work values, principles, and techniques to one or more of the following ends: helping people obtain tangible services; counseling and psychotherapy with individuals, families, and groups; helping communities or groups provide or improve social and health services; and participating in legislative processes. The practice of social work requires knowledge of human development and behavior; of social, economic, and cultural institutions; and of the interaction of all these factors (NASW, 2003).

Social work assessments and interventions must be multidimensional and efficient (Hudson & McMurtry, 1997; Mattanini & Kirk, 1991) and comprehensive (Blazer, 2000; Geriatric Assessment Methods, 1987; Kane, 1995; Warshaw, 1995). They should use standardized, reliable assessment instruments (Kane, 1995). Assessment of older adults should ensure that the care provided is “adequate,” meaning that the client receives both a sufficient quantity and quality of care (Morrow-Howell, Proctor, & Dore, 1998). Assessment should be client-centered, ensuring that social workers attend to the problems and goals that the client
reports as important, as opposed to presuming clinical omniscience (Barrett & Soltys, 2002; Bradley, Bogardus, van Doorn, Williams, Cherlin, & Inouye, 2000; Rao, Weinberger, & Kroenke, 2000). According to Geron (1997), “…the consequences of these [geriatric] assessments are enormous…Assessment is the ‘open sesame’ to financial, health and social services. Assessment both determines eligibility to begin or continue services and justifies the need for other important tests, treatments, or intervention” (Geron, 1997, ¶ 3).

VA social workers are obviously unable to assess every veteran for psychosocial problems and professional intervention (Dove, Schneider, & Gitelson, 1985, Cook et al., 1996; Mizrahi & Berger, 2001). However, the benefits of assessments are clear, among them reduced use of inpatient services, improved patient function and ensuring that the neediest clients receive priority (Gudmundsson & Carnes, 1996; Alessi, Josephson, Pietruska, Harker, & Rubenstein, 2000). Adequate assessment can detect signs of suicidality (Beautrais, 2002; Hudson & McMurtry, 1997); depression (Berkman, Chauncey, Holmes, Daniels, Bonander, Sampson, & Robinson, 1999; Chaney, Hasenberg, & Hedrick 1999: Westropp, 2002) and Post-Traumatic Stress Disorder (PTSD); (Cuervo-Rubio, 1995; Magruder & Johnson, 2003).

A growing number of veterans are approaching the VA health care system for social work assessment and intervention, among other services. There are 6.8 million veterans currently using VA health care, an increase from 2.9 million in 1996 (Fong, 2003). During 2002, there were 235,000 veterans on a waiting list for care of six months or more (Fong, 2003; Smith, 2003).

**This Study’s Six Significant Outcomes**

This study is important because it analyzes older veterans’ compromised physical, mental and social health. Its data reveal that in many cases, older veterans’ psychosocial status is worse
than that of their peers in the general population. It demonstrates that this cohort of vulnerable older veterans require and in fact request assessment and intervention by VA social workers. It provides VA social workers further information about their clients’ coping capacities. The older veterans in this study report significant challenges and worsening status in various life domains. VA social workers’ mission is to ameliorate veterans’ stress. This study’s results further justify such amelioration in light of the multiple physical, mental and social difficulties these older veterans report.

This study examines the relationships between older veterans’ (age 60 and above) psychosocial status as described above, their use of health care services and their perceived general self-efficacy. In this study, perceived general self-efficacy is operationally defined per Rimm & Jerusalem (1999) as “..a global confidence in one’s coping ability across a wide range of demanding or difficult situations and reflects a broad and stable confidence in dealing effectively with rather diverse stressful situations” (p. 330). “General perceived self-efficacy pertains to optimistic beliefs about being able to cope with a large variety of stressors. In contrast to other constructs of optimism, perceived self-efficacy explicitly refers to one’s competence to deal with challenging encounters” (Schwarzer & Born, 1997, p. 177).

This study examines older veterans’ perceived general self-efficacy as a valuable, concrete personal coping mechanism. Self-efficacy has been shown to generalize across various life situations (Cervone, 2000). In older adults, it helps to alleviate stress (Lightsey, 1996), cope with the loss of a loved one (Benight, Flores, & Tashiro, 2001), and promote positive health behaviors (Conn, 1997; Grembowski, Patrick, Diehr, Durham, Beresford, Kay, & Hecht, 1993; Schwarzer & Fuchs, 1995; Sohng, Sohng, & Yeom, 2002). It bolsters confidence in older adults' abilities to avoid falls (Cheal & Clemson, 2001; Cumming, Salkeld, Thomas & Szonyi, 2000;
Peterson, 2002/2003) and successfully adapt to relocation to nursing homes (Johnson, Stone, Altmaier & Berdahl, 1998).

There are six significant reasons for examining the relationships between veterans' psychosocial status, their perceived general self-efficacy and their use of VA health care services. Concomitant benefits are also evident for social workers serving veterans and other older adults.

The first reason is the VA's own mandate for its social workers to fulfill their professional mission, which is to “diminate psychosocial complications as significant barriers to health care interventions for veterans and families. This is accomplished by developing and maintaining integrated, quality programs in patient care, research, education and prevention” (VA Mission, 2003). The information that this study produces will assist VA social workers in their patient care and prevention efforts. Patient care improves when social workers have comprehensive knowledge about the kinds of problems their clients face each day, how they cope with their problems, and how they perceive their coping abilities. Prevention occurs when patient care crises and patient psychopathology are preemptively avoided or alleviated.

In addition to fulfilling the VA’s mandate, VA social workers also fulfill the intent of the National Association of Social Workers’ (NASW) Code of Ethics (NASW, 1999). The Code stresses social workers’ commitment to ‘the needs and empowerment of people who are vulnerable” (NASW, 1999, ¶ 1). Older veterans are certainly a vulnerable population (Alessi et al., 2000; Starfied, Parrino, Headley, & Ashton, 1995; VA Brief, 1999) and they are a population that the VA has made a research priority (VA Access to Care, 2002).

The second reason for the importance of this study is that VA social workers will have another, and novel, means of determining which veterans are at increased risk for maladaptation.
In the gerontological context, maladaptation ‘occurs if the individual cannot meet the level of environmental demands or can do so only at the cost of personal well-being’ (George, 1995, p. 13). VA social workers should be aware of which veterans are at risk for maladaptation. This study concentrates on how veterans describe their daily problems and how they perceive their adaptive capacities (general self-efficacy). This study’s assessment method builds on the presumption that the individual has manifest or latent strengths that can be tapped for productive coping. In moving away from routine client “pathologies” toward client empowerment (Zimmerman, 1995; McMillen & Fisher, 1998), the inclusion of general self-efficacy in client assessment adds a new dimension to social work with older veterans.

There is clinical value in studying the self-efficacy construct as manifested in veterans’ lives. This is a third reason for this study’s importance: VA social workers may eventually develop self-efficacy interventions that help veterans recognize and develop their self-efficacy. Self-efficacy interventions include but are not limited to “cognitive and behavioral pain control techniques; proximal goal setting combined with self-incentives as motivators to increase levels of activity; problem solving and self-diagnostic skills..and the ability to manage medication programs” (Bandura, 2001a, p. 13817). Though this study is not designed or intended to offer clinical suggestions to improve personal self-efficacy in various domains, such suggestions are proposed in the literature (Benight, Flores, & Tashiro, 2001; Furstenberg & Rounds, 1995; Langan & Marotta, 2000; Lev, Paul, & Owen, 1999; Mowat & Laschinger, 1994; Stidwell, 1994).

This study will shed further light on veterans’ intrapersonal processes. What do veterans think about the frequency and severity of their daily physical, mental, social and environmental concerns? Are veterans dealing with multiple problems in different domains? What do they think
about their capacity to cope with their problems? Do veterans feel themselves to be self-efficacious, that is, do they feel that they have ‘perceived self efficacy [which is] defined as people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses?” (Bandura, 1986, p. 391).

Furstenberg & Rounds (1995) suggested specific interventions that social workers can use to evaluate and increase clients’ sense of self-efficacy. Self-efficacy content can also be incorporated into strengths-based social work (Blundo, 2001; Early & GlenMaye, 2000; McMillen, 2000; McQuaide & Ehrenreich, 1997).

A fourth reason for this study’s importance is that it will investigate the connection between veterans’ physical, mental, social and environmental problems and their perceived general self-efficacy. Much research has examined older adults’ task-specific self-efficacy in coping with a variety of stressors: depression (Davis-Berman, 1988, 2001); breast self-examination (Baker, 1989); elder abuse (Comijs, Penninx, Knipscheer & van Tilburg, 1999); the need for physical exercise (Clark, 1996; Clark & Nothwehr, 1999; Sharpe & Connell, 1992); relocation to a nursing home (Johnson, Stone, Altmaier, & Berdahl, 1998); fear of falling (Cheal & Clemson, 2001; Cumming, Salkeld, Thomas & Szonyi, 2000; Tinnetti & Powell, 1993); bereavement (Fry, 2001); memory loss (Lachman, Weaver, Bandura, Elliott, & Lewkowicz, 1992; West & Thorn, 2001); problem solving (Artistic, Cervone & Pezzuti, 2003); and overall changes in personal health behaviors (Bandura, 1997; Conn, 1997; Grembowski et al., 1993; McAvay, Seeman & Rodin, 1996; Purdie & McCrindle, 2002; Sohng, Sohng & Yeom, 2002).

This study, rather, examines older veterans’ general self-efficacy, and takes the research one step further. This study examines the linkage between veterans’ self-reported general self-efficacy,
their self-reported physical, mental, social and environmental problems, and their use of health care services.

A fifth reason for this study’s importance is that there is an overall relative paucity of research about veterans’ perceived general self-efficacy. Veterans have been part of cohort studies on general self-efficacy among elders (Comijs, Penninx, Knipscheer & van Tilburg, 1999; Davis-Berman, 1988; Fry, 2001; Kempen, van Sonderen, & Ormel, 1999; Langan & Marotta, 2000; Tsay & Chao, 2002). Veterans have also been the subjects of research that measured their task-specific self-efficacy (TSSE); (Mohler, Kroesen, Baldwin, Duffy, Wendel, Bormann, Ampel, & Gifford, 2002; Nodhurft & Haley, 2000; Steele, 2001; Wakefield, 2002). There are no studies that specifically examine the relationship between older veterans’ psychosocial status, their use of VA health care services, and their perceived general self-efficacy (GSE). Instead of examining the antecedent effects of veterans’ GSE, this study focuses on veterans’ GSE in its correlational and sequential relationship with veterans’ physical, mental, social and environmental problems. Instead of asking, ‘How does veterans’ general self-efficacy affect ‘X’, (i.e., recovering from a fall; propensity to exercise; ability to stop smoking) this study asks, ‘What relationships exist between veterans’ self-reported stressors and their self-reported general self-efficacy?’ Such research is potentially valuable to VA social workers because the VA’s Health Services Research and Development Service (HSR&D) calls for ‘patient-centered health care that focuses on both the subjective and objective dimensions of health care quality as experienced by the patient and their family, in terms of their perceptions of illness” (VA QUERI, 1998, p. 2). The HSR&D seeks research about the relationship between patient sociodemographics and patient-defined outcomes as well as how self-efficacy interventions can improve patient care (VA QUERI, 1998). The HSR&D is also planning diagnostic and

The sixth and final reason for this study’s importance is that it compares older veterans who use VA health care and older veterans who do not. There is much literature that studies characteristics of older veterans who use the VA for their health care (Fonseca, Smith, Klein, & Sheldon, 1996; General Accounting Office, 1995; Guzman, Sohn, & Harada, 2004; National Academy of Sciences, 1977; Raymond, 1992; Washington, 2004). The same is not true for older veterans who do not use VA health care. Researchers may extrapolate from the VA users’ characteristics by stating that non-users are the sociodemographic ‘opposites’ of VA users. Non-VA users may thus be described as having sufficient financial resources and private health insurance, being white, living with others, and being less likely to have psychiatric and substance abuse disorders.

More information is needed about older veterans who do not use the VA for their health care. This study collected data on 53 veterans age 60 and older in this category regarding their physical and mental health, their social and environmental problems, and their socioeconomic status. This study then compared these non-VA users with 69 veterans 60 and older who use VA health care on a measure of perceived general self-efficacy, with the intention of discovering differences between the two groups. This comparative information is useful for VA social workers since it will help them in providing social work interventions related to improving veterans’ general self-efficacy. These interventions may reduce the number and severity of older VA health care users’ physical, mental, social and environmental crises.

This study’s aim evolves from research that demonstrates the connection between perceived task-specific self-efficacy (TSSE) and various elements of psychosocial status
among elders. This study then takes the research a step further in examining the relationship between older veterans’ perceived general self-efficacy (GSE), their psychosocial status, and their use of VA health care services at a VA medical center in the southeastern United States. It also aims to expand VA social workers’ knowledge about their clients and to use this knowledge to better assess and prioritize veterans most in need of social work services.

The VA Health Services Research and Development Service (HSR&D), directors of VA social work departments and individual practitioners all recognize the need for and the benefits of social work research in the VA health care system (Cook & Freedman, 1992; Cook, Freedman, Freedman, Arick & Miller, 1996; VA HSR&D, 1998; VA Social Work Pre-Doctoral Program, 2003; VA Working Paper, 1998). Knowledge about veterans’ general self-efficacy gained via this study provides another dimension to VA social workers’ assessment of their clients.

**Summary**

Older veterans have poorer physical and mental health than their peers in the general population (Hankin, Spiro, Miller, & Kazis, 1999; Health Status and Outcomes of Veterans, 2000; Kazis et al., 1998, 1999; National Survey of Veterans, 2001). They confront significant psychosocial stressors that include but are not limited to ageism, financial instability, physical disabilities, long-term care planning, mental illness and bereavement. These stressors impede elders’ ‘successful aging’ (Palmore, 1995; Rowe & Kahn, 1997; Seeman, McAvay, Merrill, Albert & Rodin, 1996). Successful aging was defined by Rowe & Kahn (1997) as “. . . including three main components: low probability of disease and disease-related disability; high cognitive and physical functional capacity, and active engagement with life” (p. 433). These stressors also raise the cost of elders’ health care (Fuchs, 1999; Goulding, Rogers, & Smith, 2003; Koziol,
Zuraw, & Christiansen, 2002; Waldo, Sonnefeld, McKusik, & Arnett, 1989). This study will provide information on older veterans’ perceived general self-efficacy and their use of VA health care in relation to both their self-efficacy and their psychosocial status. Perceived general self-efficacy (Rimm & Jerusalem, 1999; Schwarzer & Born, 1997; Schwarzer & Scholz, 2001; Shelton, 1990) has been shown, for example, to positively affect how older women manage heart disease (Clark & Dodge, 1999); how older adults manage physical disability (Kempen, van Sonderen, & Ormel, 1999) and adjust to the loss of a loved one (Benight, Flores & Tashiro, 2001; Fry, 2001). The present study takes this line of research further by focusing solely on older veterans as a special population cohort. It examines the ways that their perceived general self-efficacy is related to their physical, mental, social and environmental health and also to their use of VA health care services.

Knowledge about older veterans’ general self-efficacy in relation to their self-reported life challenges and use of VA health care services is significant because it provides another vantage point on their coping skills and styles. Knowledge about their coping skills and styles, in turn, is useful for the VA in order for the VA to respond more efficiently and compassionately to its older clients. The VA’s research division has itself emphasized the value of studies that “...address the psychological component of illness [that] can have a significant impact on outcomes, including the cost and utilization of health resources” (VA Access to Care, 2002). The VA has also emphasized research that provides “innovative interventions to meet the emotional care needs of patients” (VA Access to Care, 2002). Gathering information about veterans’ perceived general self-efficacy in facing their psychosocial challenges can conceivably lead to interventions that develop and strengthen this coping skill.
This study has significance for social workers serving both older veterans and older adults in the general population. ‘Self-efficacy is an appropriate target for [social work] intervention. Skills training, concrete services, dealing with the client’s motivation and desire to change…are important channels for producing change. The client’s belief that he or she can act effectively, however, is nevertheless a critical component of change’ (Furstenberg & Rounds, 1995, p. 593).

Social workers serving older adults can help their clients learn and strengthen their self-efficacy skills, using Bandura’s four sources of perceived self-efficacy: enactive attainment, vicarious experience, verbal persuasion, and physiological information (Bandura, 1986, 1997; Langan & Marotta, 2000). In assisting their clients to understand and use self-efficacy as a coping mechanism, social workers can serve elders through a strengths perspective (Carpenter, 2002; McQuaide & Ehrenreich, 1997).

In their role as assessors of older clients’ needs, understanding how older clients perceive their capacity to deal with a wide range of life situations (i.e., general self-efficacy) helps social workers provide personalized treatment and services. Client assessment is a basic social work function. Since the profession devotes special attention to serving the most vulnerable members of society, much of its effort is expended on assessment and intervention in the lives of older adults, a rapidly expanding population cohort. Gerontological social work must have current and comprehensive assessment skills and tools. Examining a client’s perceived general self-efficacy offers additional information about his or her capacity for positive outcomes.
CHAPTER 2

LITERATURE REVIEW

This chapter discusses 1) the origin, definition and measurement of the construct of self-efficacy (SE) and its derivative, general self-efficacy (GSE); 2) research on older (60 years and above) adults’ psychosocial status and their perceived GSE; and 3) research on older (60 years and above) military veterans’ psychosocial status and their perceived GSE.

The Self-Efficacy Construct


Social cognitive theory postulates that human functioning is the result of the interaction among three factors: an individual’s environment; personal factors (including cognition, affect, and physiology), and behavior. This interaction is represented in Figure 1 below, excerpted from Pajares (2002) and defined by Bandura as “triadic reciprocal causation.”
Figure 1. Triadic Reciprocal Causation.

The diagram illustrates the dynamic relationship among all three factors and postulates bidirectionality in all domains. This bidirectionality means that, first, in any given situation, the individual’s behavior is both shaped by, and shapes, his or her environment and personal factors; second, that his or her environment both shapes and is shaped by behaviors and personal factors; and third, that his or her cognitions, affect, and physiology are shaped by behavior and by the environment. This triadic reciprocal causation differs from theories of human action that interpret individual behavior as completely dominated by and reactive to outside forces (Skinner, 1953, 1969); by inborn and inflexible traits (Allport, 1961; Nicholson, 1998), or by unconscious drives in the Freudian tradition (Newman & Newman, 1987; Westen, 1998).

Social cognitive theory stresses the individual’s independent, self-directed capacity to affect all three parts of this conceptual triad. Though SCT does not completely reject all notions of behaviorist influences, it places individual cognition and self-reflection at the center of human motivation. SCT postulates that personal behavior is motivated by “emergent interactive agency” within the triadic reciprocal model (Bandura, 1986, 1989). Persons are
“Emergent interactive agents” because they make choices based on forethought and prior personal experience, as opposed to simply reacting to external stimuli. People approach life’s challenges with certain expectations of the outcomes of their behavior before initiating action.

According to SCT, one’s behaviors, cognitions and environments are fluid, ever-changing realities that a person negotiates with varying degrees of success according to his or her individual abilities. SCT posits the centrality of personal agency and independence in the creation of and reaction to one’s life situation. The theory is “social” since it is manifested in the interaction between person and situation, as well as interpersonal relationships. It is “cognitive” since it emphasizes the role of mental processes in human motivation and action (Stajkovic & Luthans, 1998). Within the social context of daily life, people think about their options, choose some and reject others, and evaluate their actions. Perceived self-efficacy derives from these social and cognitive dispositions and processes (Bandura, 1997; Flammer, 2001; Pajares, 1997).

**Dimensions of the Self-Efficacy Construct**

As individuals socially and cognitively negotiate their daily challenges, their perception of their own coping capacities is of fundamental importance. Their perceived self-efficacy plays an important role. Perceived self-efficacy is defined by Bandura as

people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances.

It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses (Bandura, 1986, p. 391).

Perceived self-efficacy is the aggregate of four processes: mastery experiences, vicarious learning, social persuasion and somatic/emotional states (Bandura, 1986, 1997a, 1997b).
The first process, mastery experiences, refers to the individual’s ability to successfully meet and overcome challenges. Past successes then strengthen one’s perseverance when future challenges arise. The second process, vicarious learning, refers to witnessing one’s peers succeed by sustained efforts and thus believing that one has similar capacities. The third process, social persuasion, refers to verbal support given by others that is designed to help the individual believe that he or she has the capacity to perform at successful levels. The fourth process, somatic and/or emotional states are individually assessed when challenges arise and action is required. Using positive mood and physical energy improves self-efficacy while despondent mood and physical debility diminish it (Bandura, 1986, 1994, 1997; Pajares, 2002; Stajkovic & Luthans, 1998). These capacities form personal “emergent interactive agency” (Bandura, 1989), which signifies one’s ability to proactively affect one’s environment (Bandura, 1986, 2001b).

Self-efficacy varies in level, strength, and generality (Bandura, 1986, 1997; Endler, Speer, Johnson & Flett, 2001; Pajares, 2002b, Tripp, 2002). People may judge themselves as being efficacious only in simple tasks, in moderately difficult ones, or in very difficult ones. They may feel themselves efficacious only in very specific situations and not across the board. Depth of self-efficacy beliefs will affect the choice of task and one’s persistence in completing it (Bandura, 1986; Tripp, 2002).

Types of self-efficacy

Self-efficacy can be either general or task-specific. General self-efficacy (GSE) refers to an individual’s judgment that he or she can perform capably in many different situations (Cervone, 2000; Jerusalem & Schwarzer, 1992; Scholz, Dona, Sud & Schwarzer, 2002; Sherer, Maddux, Mercandante, Prentic-Dunn, Jacobs, & Rogers, 1982; Schwarzer, 1992; Shelton, 1990).
It is a measure of one’s global confidence to successfully negotiate a variety of novel and/or stressful situations (Sherer et al., 1982; Schwarzer, 1998a, b, c).

Some researchers question the existence of GSE on the grounds that it is conceptually identical to self-esteem (Stanley & Murphy, 1997) or locus of control (Judge, Erez & Bono, 2002; Stolte, 1983; Wallston, 2001), or that it is too ambiguous (Kagan, 1996; Pajares, 1997). However, GSE is not the same as self-esteem (Gardner & Pierce, 1998; Gist & Mitchell, 1992; Sherer et al., 1982; Woodruff & Cashman, 1993) or locus of control (Bandura, 1986, 2001c). These criticisms are refuted by research establishing GSE as a universal and valid construct that accurately measures an individual’s judgment about whether he or she can perform capably in a variety of situations (Bandura, 1997; Eden & Kinnar, 1991; Haidt & Rodin, 1999; Scholz, Gutierrez-Dona, Sud & Schwarzer, 1998; Stajkovic & Luthans, 1998).

Task-specific self-efficacy (TSSE) refers to an individual’s momentary belief in his or her capability to perform a specific task at a specific level (Bandura, 1977, 1997). Research on self-efficacy has predominantly concentrated on TSSE (Gist & Mitchell, 1992; Leganger, Kraft & Roysamb, 2000; Lightsey, 1996; Moritz, Feltz & Mack, 2000) because of Bandura’s prescription that that self-efficacy is best measured at the task-specific level and since he stated that measures of general self-efficacy are vague and of little predictive value (Bandura, 1986, 1997, 1999, 2001c; Shelton, 1990).

Though speaking of self-efficacy in task-specific situations, Bandura still disputes its conflation with either self-esteem or locus of control. Self-esteem is a judgment about one’s self-worth (Bandura, 1997; Falk & Miller 1998; Turner, Lloyd & Roszell, 1999) in which one appropriates others’ evaluations of oneself, while self-efficacy is a judgment about one’s capacity to perform certain behaviors. While both constructs are internal, self-esteem’s roots
come from outside the person while self-efficacy’s come from within. Self-efficacy and locus of control are also dissimilar in their attributions of behavioral success. Self-efficacy situates successful outcomes as affected by one’s internal judgments, while locus of control situates successful outcomes as affected by external factors (Bandura, 1997).

**Older Adults’ Psychosocial Status and General Self-Efficacy**

Older adults’ perceived general self-efficacy is an important component of their overall physical and mental health. An older person who believes herself or himself able to meet and master the challenges of later life, and who actually succeeds in doing so, will likely enjoy a richer quality of life as a result. Bandura (1997) wrote that ‘the self-efficacy issues for older adults center on re-appraisals and misappraisals of their capabilities’ (p. 198). Blazer (2002) postulated that elders are undoubtedly capable of both cognitive restructuring and behavioral changes that result in a “sense of personal and existential integrity” that characterizes the ‘self-efficacious elder’ (p. 322). The importance of developing and/or maintaining positive general self-efficacy is “an especially relevant factor in understanding elderly persons’ adaptive functioning” (Holahan & Holahan, 1987).

**Older Adults’ Psychosocial Status**

Older adults’ sociodemographic data describe their general psychosocial status. The U.S. Census Bureau reported a total of 35 million adults age 65 and over in 2000. The proportion of adults age 85 and over increased by 38% since 1990 (U.S. Census Bureau, 2001). By 2030, there will be an estimated 70 million adults over 65 (Federal Interagency Forum, 2000; Jeste, 2000). Significant growth is expected in the number of particularly vulnerable elderly: the poor, women, minorities, the oldest old (85 and older), persons living alone and without family, and the physically frail (Eckenfels, 2002; Rittner & Kirk, 1995; Siegel, 1996; Young, 2003). Elders who
are poor, members of minority groups, disabled and/or cognitively impaired are at the greatest risk for abuse and neglect (Abrams, Lachs, McAvay, Keohane, & Bruce, 2002; Lachs, Williams, O’Brien, Hurst, & Horwitz, 1997).

As the number of aging Americans rises, so do the number of challenges they face. Eleven per cent of elders lived below the poverty level in 2001; most of these were women and African-Americans (Administration on Aging, 2002; Federal Interagency Forum, 2000). The adequacy, affordability and accessibility of housing for elders was the subject of a report of the federal Department of Housing and Urban Development (HUD) in 1999. Much of the nation’s housing for elders was described as being too costly, in need of urgent repair, and unable to accommodate elders with disabilities (HUD, 1999). This critique reported that 30% of all elders pay more for their housing than they can afford, 1.45 million live in housing that that needs immediate rehabilitation, and 1.1 million elders need structural changes to accommodate their disabilities (HUD, 1999). Research has shown that living in substandard housing has deleterious effects on physical health (Golant and LaGreca, 1995; Krause, 1996, 1998). Older adults’ health care costs are double that of persons under the age of 65 (Goulding, Rogers & Smith, 2003; Administration on Aging, 2002). Elders with limited financial means are often unable to obtain adequate medical care (Broyles, Narine & Brandt, 2000; Rochon, Bronskill & Gurwit, 2002). Heart disease is the primary cause of death for older Americans, followed by cancer and stroke.

Eighty percent state that their nutritional intake is either poor or in need of improvement. Inadequate nutrition in turn leads to more frequent and costly hospitalizations (National Policy and Resource Center on Nutrition and Aging, 2003). Older Americans had hospital stays of 307 per 1,000 in 1990 and 365 per 1,000 in 1998, but the average length of hospitalization simultaneously decreased by three days (Federal Interagency Forum, 2000). Four percent of
those 65 and over lived in nursing homes in 1997; 75% of these were women. Sixty-four percent of community-dwelling older adults who received home care relied on unpaid assistance (Federal Interagency Forum, 2000). The Centers for Disease Control and Prevention foresee serious challenges to the American health care system in light of these data and recommend a greater preventive and educational approach to geriatric health care (MMWR, 2003).

In regard to older Americans’ mental health status, the American Association for Geriatric Psychiatry (AAGP) reported that 20% of people age 55 and older experience abnormal anxiety, mood disorders or cognitive malfunction (AAGP, 2002). Suicide rates are higher among adults age 85 and above than any other age cohort (AAGP, 2002; Holsinger, 1999). Most older adults receive their mental health care from primary care physicians and do not take advantage of formal mental health care services (AAGP, 2002). Dementia, depression and phobias account for much of older adults’ mental and emotional burden (AAGP, 2002). The office of the U.S. Surgeon General reported that comorbid medical conditions place additional strains on elders’ mental health (Surgeon General, 1999). The American Psychological Association (APA, 2002) stated that the mental health needs of elders are not addressed in a timely and effective way and that their mental health problems are likely to be exacerbated in the future. The APA called for greater governmental reimbursement for mental health services and also for more effective information and referral efforts in local communities (APA, 2002).

Older Adults’ Self-Efficacy

Research has amply demonstrated the relationships between elders’ self-efficacy and their performance in various life domains (Bandura, 1997, 1998). Strong self-efficacy beliefs act preventively to trigger biological reactions that in turn strengthen the immune system (Bandura, 1998). Weak self-efficacy beliefs lead to depression through self-deprecation based on
unattainable standards as well as by inhibiting the development of supportive personal relationships (Bandura, 1998).

Research has documented that older adults with higher levels of self-efficacy generally enjoy better mental and physical health and experience fewer health risks than those with lower levels (Bandura, 1997a, 1997b; Gecas, 1989; Grembowski et al., 1993; Schwarzer, 1998). Much research contends that self-efficacy is essential for good mental health at all stages of life since it fosters psychological resiliency in the face of daily stressors (Bandura, 1994, 1998; Bisconti & Bergeman, 1999; Cheung & Sun, 2000; Holden, 1991; Kempen, van Sonderen & Ormel, 1999; Lightsey, 1996; McMillen, 1999; Wissing & van Eeden, 2002). In the older population, self-efficacy is positively associated with “successful aging,” a late life developmental stage that includes physical vitality, life satisfaction, an integrated spirituality and a sense of existential fulfillment (Brandtstadter, 1992; Flood, 2002; Palmore, 1995; Rowe & Kahn, 1997; Seeman, MacAvay, Merrill, Albert & Rodin, 1996).

Elders’ psychosocial status includes their personal problems, coping skills, systems with which they interact, resources and motivation (Hepworth & Larsen, 1990). Elders’ perceived general self-efficacy (GSE) affects all of these domains. GSE refers to the individual’s judgment about capable performance in a wide range of activities (Schwarzer, 1994).

As already stated, elders’ personal problems include but are not limited to poor physical and mental health and lack of adequate medical and psychiatric care (AAGP, 2002; Bartels & Smyer, 2002; Federal Interagency Forum, 2000; Surgeon General, 1999; U.S. Census Bureau, 2001). Many older adults live in inadequate housing (Krause 1996, 1998), have transportation obstacles (Berkman et al., 1996; Cook, Freedman, Freedman, Arick & Miller, 1996; Rittner &
Kirk, 1995), are malnourished (Klesges, 2001; Lokken, 2000; Quandt, 1999, 2000; Weddle, 1996) and face financial hardship (Dixon & Collins, 2003; O'Connor, 1994). Bereavement is a common condition (Benight, Flores & Tashiro, 2001; Fitzpatrick, 1998; Fry, 2001; Szanto, 1997; Thompson, 1995) as are anxiety and mood disorders (AAGP, 2002; Callahan & Wolinsky, 1995; Glass, Kasl & Berkman, 1997; Surgeon General, 1999; Swett & Bishop, 2003). Older adults face possible relocation to congregate living facilities with concomitant family stress (Keefe, 2000; Montgomery, 1999; Vlosky, Bruin, Draughn & Tiller, 2001).

Elders’ GSE is a resource with which they effectively cope with their personal problems. GSE is associated with their likelihood to engage in health-promoting behaviors (Bandura, 1998; Bodenheimer, Lorig, Holman, & Grimbach, 2002; Clark & Dodge, 1999; Grebowski et al., 1993; Schwarzer, 1998; Schwarzer & Fuchs, 1995; Sohng, Sohng, & Yeom, 2002). GSE predicts reductions in symptoms of depression (Blazer, 2002; Davis-Berman, 1988; Glass, Kasl & Berkman, 1997; Holahan & Holahan, 1987; Maciejewski, Prigerson & Mazure, 1999) and loneliness (Fry & Debats, 2003). Studies show the success of psychoeducational interventions that enhance the GSE of elderly caregivers (Fisher & Laschinger, 2001; Kuhn, Fulton, & Edelman, 2003; Toseland, Labrecque, Goebel & Whitney, 1992). GSE predicts successful management of functional limitations (Cheal & Clemson, 2001; Mendes de Leon, Seeman, Baker, Richardson & Tinetti, 1996; Seeman, Unger, McAvay & Mendes de Leon, 1999) and chronic disease (Bisschop, Kriegsman, Beekman, & Deeg, 2004). It predicts improved adjustment to bereavement (Fry, 2001) and to verbal, physical and financial mistreatment (Comjis, Jonker, van Tilburg & Smit, 1999; Comjis, Penninx, Knipscheer & van Tilburg, 1999).
Older Military Veterans’ Psychosocial Status and General Self-Efficacy

Older Military Veterans’ Psychosocial Status

There were eleven million veterans age 60 and older living in the United States in 2001. The median age of World War II veterans was 78.4, that of Korean War veterans, 70.4, and that of Vietnam veterans, 54.4 (VA Data & Information, 2002). The National Survey of Veterans (NSV, 2001) provided sociodemographic data on 20,000 veterans via telephone interviews. The NSV reported that most veterans were male (94%), Caucasian (85%), and currently married (75%).

Most veterans were employed, had a combined family income of more than $50,000 per year, and 58% reported schooling or training beyond high school. Seventy-six percent reported their health as good to excellent, 24% as fair to poor. Most veterans age 65 and older have Medicare health insurance that provides additional access to non-VA health care providers. This additional access may benefit older veterans when compared to younger veterans without Medicare. Older veterans’ health care problems may be somewhat mitigated by their combined use of both VA and Medicare providers. However, many elderly veterans still have substantial disease burden that results in a reduced health-related quality of life (Selim, Berlowitz, Fincke, Cong, Rogers, Haffer, Ren, Lee, Qian, Miller, Spiro, Selim, & Kazis, 2004; Villa, Harada, & Damron-Rodriguez, 2003). More older veterans (age 65 and above) reported their health as fair to poor than did younger veterans (below age 65). Sixteen percent of older veterans reported difficulties in Activities of Daily Living (ADLs); (Kane, 1995) and 7% reported difficulties in Instrumental Activities of Daily Living (IADLs); (Kane, 1995). Common medical problems among veterans age 65 and older were high blood pressure, vision problems, and arthritis. Seven
percent reported either drug or alcohol abuse, post-traumatic stress disorder (PTSD); (McFarlane, 1990), or other mental and emotional problems (NSV, 2001).

Additional statistics confirm veterans’ vulnerability. The Department of Veterans Affairs estimates that 250,000 veterans are homeless, 40% of whom have severe mental illness (VA Brief, 1999; VA Homeless Programs, 2001). Thirty percent of all veterans have incomes at or below the federal poverty level and have no other access to medical care besides the VA (Starfield, Parrino, Headley & Ashton, 1995). Seventy-five percent of all disabled and low-income veterans use VA health care (VA Office of Public Affairs, 2002). In fiscal year 2001, the VA provided health care for 4.1 million patients; 886,000 (21.3%) of these received mental health care (Roswell, 2002). 19% of veterans who received mental health care did so not in specialized mental health programs but in general medical settings (Roswell, 2002).

Depending on the severity of a veteran’s disability, he or she is classified into one of eight priority healthcare groups. Veterans with service connected disabilities of 50% or more are in the first priority group. ‘Service connection” refers to the VA’s determination that a veteran’s disability was incurred in or aggravated by the veteran’s military service (Department of Veterans Affairs, 2003b). Service connection ranges from 0% to 100% and is usually accompanied by financial compensation. The amount of financial compensation rises as the rating of VA-determined disability rises. The lowest priority group consists of veterans with incomes that surpass the VA means test’s threshold and without either compensable or non-compensable service connection status (Department of Veterans Affairs, 2003b). The health care of older veterans with lower priority status could conceivably be compromised within the overburdened VA health care system.
An example of older veterans’ particular vulnerability is their experience of PTSD and its treatment by the VA. The VA has studied predictive factors leading to suicide among older veterans who use primary (medical) care. Llorente et al. (2002) assessed over 9,000 such veterans and found that they were more likely to have suicidal ideation if they had poor health along with post-traumatic stress disorder (PTSD) or depression. Lambert & Fowler (1997) examined personal factors that uniquely predispose veterans to suicide (being male, unmarried, homeless, substance abusing, depressed and/or schizophrenic) and recommended more effective screening for suicide risk (Lambert & Fowler, 1997).

Many World War II veterans have not sought treatment for PTSD because they thought they simply had to live with what was once called ‘war neurosis’ (Cuervo-Rubio, 1995; Engdahl & Eberly, 1994; National Center for PTSD, 2003; Schnurr, 1991). In a study of 2,160 veteran outpatients, Hankin, Spiro, Miller & Kazis (1999) found that there were proportionately more veterans with PTSD than in comparable cohorts in the general population (Hankin, Spiro, Miller & Kazis, 1999). PTSD in older veterans is often misdiagnosed (Port, Engdahl, & Frazier, 2001). In the fiscal year 2001, over 57,000 veterans received care in VA specialized outpatient PTSD treatment programs and over 5,000 received such care in inpatient settings (Roswell, 2002).

**Self-Efficacy of Older Veterans**

The literature discusses the clinical usefulness of developing older adults’ GSE (Bandura, 1997; Blazer, 2002; Fleming, McKenna, Murchison, Wood, Rogers, & Hutcheson, 2003; Groessi & Cronan, 2000; Larson, 2000; Schwarzer & Fuchs, 1995), but there is a gap in research about the same clinical application specifically with older veterans. There have been no studies that specifically examined the relationships among older veterans’ GSE, their self-reported physical and mental health (utilizing the SF-36; Ware,
1992; Ware, Kosinski, & Dewey, 2000), and their social and environmental problems (utilizing the Social Needs Checklist; Cook, Freedman, Freedman, Arick & Miller, 1996).

Teaching self-efficacy skills to older veterans is an innovative, patient-centered social work intervention. By first investigating the relationships among older veterans’ general self-efficacy, their self-reported physical and mental health, and their social and environmental problems, this dissertation research lays the groundwork for such an intervention. The VA’s Office of Research and Development has prioritized the care of elderly veterans, soliciting research ‘to evaluate and improve the delivery and outcomes of geriatric care…[including] geriatric assessment” (VA Working Paper, 1998). The VA’s Health Services Research and Development Service (VA HSR&D) listed ‘patient -centered care’ as one of eight research priorities in 2002 (VA Access to Care, 2002). New methods of educating patients about coping with illness and “efforts to address patient fears, anxieties and concerns, the psychological component of illness…[that result in] evaluations of innovative interventions to meet the emotional needs of patients are also encouraged” (VA Access to Care, 2002, p. 17). Teaching older veterans about general self-efficacy and its usefulness in their daily lives is the type of “innovative intervention” encouraged by the VA.

Such innovations have particular contemporary relevance in light of the changes that the VA system has incorporated in its service capacity and delivery. There was an 85% increase in enrollment for VA health care by veterans 65 and older during the period 1999-2002. The VA estimates that there will be an increase in the raw number of veterans who plan to use its health care system in the near future (Department of Veterans Affairs, 2003b). During the 2002 fiscal year, there was a 34% increase in total mental health patients seen including a 43% increase in the total number of veterans receiving general psychiatric services (Department of Veterans
Affairs, 2003a). The VA faces this increasing demand for care as it is simultaneously influenced by an uncertain economy, increases in medical costs and a lack of policy development in the area of national health insurance (Department of Veterans Affairs, 2003a).

**Characteristics of Older VA and Non-VA Health Care Users**

There were an estimated 9.3 million veterans age 65 and older in 2000. It is expected that there will be 9 million veterans in the same age cohort by 2010 as a result of the aging Vietnam veteran population (Fonseca, Smith, Klein, & Sheldon, 1996). Lower income and level of education, being non-white, living alone, and lacking private health insurance have been found to be significant factors predisposing veterans to use VA health care (Fonseca, Smith, Klein, & Sheldon, 1996; Guzman, Sohn, & Harada, 2004; National Academy of Sciences, 1977; Raymond, 1992; Washington, 2004).

The 2001 National Survey of Veterans (NSV, 2001) interviewed 20,048 veterans of all age groups by telephone. Veterans who did not use VA health care either in the last 12 months or at any time in the past were asked why they did not do so. Forty percent responded that they had other health care sources; 25% said they did not need health care; 20% believed they were not eligible for VA health care, and 18% stated that obtaining VA health care was inconvenient. There was no categorization by age group in reference to the preceding self-reports. Only 4% did not think that VA health care would not be as good as that available elsewhere (NSV, 2001). Thirty-three percent of veterans age 65 or older reported their health as either ‘fair’ or ‘poor.’ Veterans with incomes above the statutory threshold that would qualify them to receive VA health care reported the best overall health (21.7%; Backhus, 1999). Veterans who use VA health care are typically older, poorer, and more likely to have psychiatric and substance abuse diagnoses (National Health Policy Forum, 1998).
This Study’s Rationale

Older military veterans are a vulnerable population facing a wide variety of significant life stressors (Cook, Freedman, Freedman, Arick, & Miller, 1996; Health Status and Outcomes of Veterans, 2000). The social work profession serves vulnerable populations and seeks ‘to enhance clients’ capacity and opportunity to change and to address their own needs” (NASW, 1999). General self-efficacy is a universal construct (Scholz, Gutierrez-Dona, Sud, & Schwarzer, 2002). Persons making judgments about their general self-efficacy are judging their capacity to cope with a wide variety of stressful situations.

This study examines older veterans’ general self-efficacy in relation to their self-reported life stressors and to their use, or non-use, of VA health care. Knowledge of these relationships can help VA social workers identify and assist older veterans who report significant physical, mental, social and environmental problems and concomitant low general self-efficacy.

This study will contribute to gerontological social work’s knowledge base in a heretofore unexamined area: older veterans’ general self-efficacy and its relationships to their daily challenges in various life domains.
CHAPTER 3

METHODOLOGY

Purpose of this Study

The purpose of this study was to examine the relationships among older (age 60 and above) military veterans’ perceived general self-efficacy (GSE) and their use of health care; their self-reported physical and mental health; and their self-reported social and environmental problems. This study compared 69 veterans who use VA health care with 53 veterans who do not use VA health care (total N = 122). This study’s goal was to discern older military veterans’ coping capacities and their needs for social work intervention.

Research Questions and Hypotheses

Based on previous studies of general self-efficacy, nine hypotheses will guide this study.

Hypothesis 1: Older veterans’ consumption of health care services is negatively related to their level of perceived general self-efficacy.

Hypothesis 2: Older veterans’ physical health is positively related to their level of perceived general self-efficacy.

Hypothesis 3: Older veterans’ mental health is positively related to their level of perceived general self-efficacy.

Hypothesis 4: Older veterans’ social and environmental problems are negatively related to their level of perceived general self-efficacy.
Hypothesis 5: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report lower levels of perceived general self-efficacy.

Hypothesis 6: As compared with older veterans who do not use VA health care services, older veterans who use VA health care will report poorer physical health.

Hypothesis 7: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report poorer mental health.

Hypothesis 8: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report more social and environmental problems.

Hypothesis 9: Among older veterans, higher levels of physical and mental health and lower levels of health care consumption and social and environmental problems predict higher levels of perceived general self-efficacy.

Data Collection

Study Design and Sampling Procedure

This study used a cross-sectional correlational research design and examined the relationships among older veterans’ self-reported health and their coping capacities at one point in time. Data for this study were from a purposive sample of 122 veterans age 60 and older. Participants were classified as either “VA users” or “non-VA users.” VA users referred to veterans who used the Salisbury VA Medical Center (SVAMC) for their health care. Non-VA users referred to veterans who do not use any VA health care at all.

The sample of VA-users were all recruited at the Salisbury, North Carolina Veterans Affairs Medical Center (SVAMC). The Salisbury, North Carolina Veterans Affairs Medical
Center (SVAMC) is one of the fastest growing VA hospitals in the nation. The SVAMC serves 23 counties in the Central Piedmont area of North Carolina. There are approximately 287,000 eligible veterans in this service area. In addition to the Salisbury hospital, there are outpatient clinics in Charlotte and Winston-Salem. During the past five years, the SVAMC has had a 73 percent increase in the number of patient visits. This increase is due to the fact that veterans have followed the general United States population migration pattern of moving to the South, West and Southwest (VA Capital Asset Realignment for Enhanced Services, 2004). In particular, North Carolina’s Central Piedmont region has witnessed rapid population growth. Additionally, veterans who have served at North Carolina military bases have elected to remain in North Carolina upon retirement since the state does not tax any federal retirement pensions.

Numbered among this relocated cohort are those older veterans who have suffered the death of their spouse. What was formerly envisioned as an attractive retirement in some cases turns into another personal stressor. This stress is due to the lack of other family and friends who would normally serve as a social support system for a newly widowed veteran. Several of these widowed veterans reported that they were currently grieving the loss of a loved one on this study’s Social Needs Checklist and discussed their grief with the author.

The SVAMC served 49,361 patients, with a total of 252,628 outpatient visits through July 31 of fiscal year 2004. Inpatient services are provided for acute medicine, cardiology, surgery, psychiatry, and physical rehabilitation, as well as intermediate and extended care. The SVAMC operates 159 hospital beds. The bed composition is 25 in Intermediate Medicine, 17 in Medicine, 115 in Psychiatry, and 2 in Surgical. The Psychiatric Residential Rehabilitation Treatment Programs (PRRTP) account for an additional 55 beds. Extended Geriatric Care is provided in 270 Nursing Home Care beds (Sutter, 2004).
VA users age 60 and older received an informational flyer from their service provider (psychiatrist, medical doctor, clinical social worker, etc.) during their appointment at the SVAMC. The flyer explained the study and invited their participation. The same flyers were also distributed by hand on many occasions in the main corridors of the SVAMC by the author. Flyers were also placed in prominent view in every clinic and waiting area in the hospital.

VA-users who wished to participate either self-referred by seeing the flyer and contacting the researchers, or were referred by their service providers. Participants met privately with one of three data collectors (all licensed, master’s level clinical social workers). The 20-minute meeting included the social worker’s explanation of the purposes and consequences of informed consent. Each veteran was given a copy of the consent forms he or she signed and was then provided with the three scales (the Social Needs Checklist, the SF-36 and the General Self-Efficacy Scale). Copies of these scales are in Appendix A. Each participant required an average of 10-15 minutes to complete the scales. Upon completing the scales, the veteran was given a $5.00 Wal-Mart gift card as a gesture of appreciation. The completed scales were kept in a locked office in the SVAMC’s Mental Health Clinic. A total of 69 VA-using participants were recruited in this manner.

The sample of non-VA users were veterans age 60 and older who do not receive any VA health care. These veterans were recruited at North Carolina annual conventions of the Disabled Veterans of America and the American Legion in Raleigh, North Carolina in the fall of 2004. Other non-VA users were recruited at local veterans service organization meetings in the Salisbury, North Carolina area.

At the state conventions, the author set up a table with informational flyers and explained the study to prospective participants. The veterans who participated met privately with either the
author or another social worker who collected the study’s data. During the course of this 20-minute meeting, the veteran was informed about the purpose and consequences of informed consent and was given copies of the consent forms he or she signed. The veteran was then given the study’s three scales for completion, along with a special checklist that provided sociodemographic and health information. A copy of this checklist is in Appendix A. This special checklist was needed only with the non-VA users since they were not formally enrolled with the VA and thus not in the VA electronic database. The researchers were approved by the Medical Center’s Institutional Review Board (IRB) to access the electronic medical record of those veterans who use VA health care. The researchers extracted the same demographic information about VA-users as was requested on the checklist from the veterans who do not use VA health care. Participants required an average of 10-15 minutes to complete the scales. Participants were given a $5.00 Wal-Mart gift card as an appreciative gesture upon completing the three scales. These completed scales were also kept in a locked office in the SVAMC’s Mental Health Center. A total of 53 non-VA users were recruited in this manner.

The SVAMC’s IRB and its Research and Development Committee approved the study and its protocol for gathering data from veterans using VA health care services. The University of Georgia’s IRB approved the study and its protocol for gathering data from veterans who do not use VA health care. The University’s IRB was the IRB of record for and had sole oversight of this part of the project.

**Measures**

**Sociodemographic variables**

This study collected information on each veteran’s age, race, gender, income, marital status, service connection status, periods and types of military service, medical
and psychiatric diagnoses, prescription medications, outpatient mental health visits and inpatient days of care. This information was obtained in two ways. The researchers accessed the hospital’s electronic patient records of those veterans using VA health care. The veteran had earlier given informed consent for this electronic access. For veterans not using VA health care, this information was obtained via a checklist that the participant completed at the time he or she completed all the other scales. A copy of this checklist is in Appendix A.

**General Self-Efficacy**

General self-efficacy refers to an individual’s judgment that he or she can perform capably in many different situations (Schwarzer, 1992). It is a measure of one’s global confidence to successfully negotiate a variety of novel and/or stressful situations (Sherer et al., 1982; Schwarzer, 1998a, b, c).

General self-efficacy was measured in this study by the General Self-Efficacy Scale (GSES); (Schwarzer, 1992). It is a ten-item scale. Responses are made on a 4-point Likert scale. The scale is self-administered. The responses to all 10 items are summed to yield a final composite score with a range from 10 to 40. Higher scores indicate greater general self-efficacy. There is no recoding.

In a study of the GSES’ psychometric properties in samples from 25 countries, Ralf Schwarzer, the scale’s creator and other researchers provided evidence of the GSES’ reliability with alphas ranging from .75 to .91 (Scholz, Gutierrez-Dona, Sud, & Schwarzer, 2002). The same study provided evidence of the GSES’ validity since general self-efficacy was positively correlated with measures of optimism and anticipated social support. It was negatively correlated with measures of anxiety and depression. The GSES’ construct validity was reported by Leganger, Kraft, & Roysamb (2000), who found positive correlations between the GSES and
positive affect as measured by the Positive and Negative Affect Scale (PANAS), and negative correlations between the GSES and negative affect (Watson, Clark, & Tellegen, 1988, cited in Legamger, Kraft, & Roysamb, 2000). Additional evidence for the satisfactory construct validity of the GSES has been provided by other researchers (Cheung & Sun, 2000; Rimm & Jerusalem, 1999; Scholz, Gutierrez-Doan, Sud, & Schwarzer, 2002; Schwarzer, 1992; Sukmak, Sirisoonthon, & Meena, 2000).

Social and environmental problems

Providing comprehensive health care to older veterans includes assessing not only their medical concerns but also their day-to-day living conditions and social interactions. Professionals from different disciplines can collaborate in these assessments (Badger, Ackerson, Buttell, & Rand, 1997; Dove, Schneider, & Gitelson, 1985; Lesser, 2000; Netting & Williams, 2001); however, the patient’s self-report is important. It is obtained in this study.

The Social Needs Checklist (SNC) accurately assessed the severity and frequency of veterans’ social and environmental problems (i.e., housing, unemployment, personal and family stress) in a sample of VA primary care patients (Cook, Freedman, Freedman, Arick, & Miller, 1996). It is a 15-item scale. Responses are made on a 4-point Likert scale. The scale is self-administered. The responses to all 15 items are summed to yield a final composite score with a range from 15-60. Higher scores indicate more social and environmental problems. There is no recoding. A separate question asks the respondent if he or she would like a VA social worker to contact them in the future for information or services. The answer is either yes or no.

The SNC addresses what Waitzkin, Britt, & Williams (1994) describe as ‘narratives in medical encounters:”

When older people talk to doctors, their conversations often
touch on social problems. Bereavement, financial insecurity, isolation, dependency, inadequate housing, lack of transportation and similar issues can cause difficulties for the elderly…Certain geriatric programs use multidisciplinary teams, including social workers, to help resolve problems that derive from the social context of medicine; to some extent, these interventions can improve conditions that seniors face.…Many older people continue to consult practitioners who feel that the social context is not relevant to the medical task or that their ability to grapple with contextual problems is limited (Waitzkin, Britt, & Williams, 1994, p. 322).

The Social Needs Checklist (SNC); (Cook, Freedman, Freedman, Arick, & Miller, 1996) has questionable validity and this weakness is noted by the scale’s creators. Internal consistency was .78 and test-retest reliability after three weeks was .89 (Cook, Freedman, Freedman, Arick, & Miller, 1996).

Physical and Mental Health

Older veterans have a variety of physical and mental health concerns. Whether an individual uses VA health care or not, physical and mental health is determinative of one’s quality of life. As in the arena of social and environmental problems, the patient’s self-reported physical and mental health status is an important part of the overall assessment. This study captures such self-reports.

This study’s third scale is the Medical Outcomes Study 36-Item Short Form Health Survey (SF-36); (Ware, 1996). The SF-36 is a generic measure of eight health attributes using eight multi-item scales containing two to 10 items each. The eight health attributes are
behavioral function and dysfunction, distress and well-being, objective reports and subjective ratings, and favorable and unfavorable evaluations of general health status (Ware, Kosinski, & Dewey, 2000). Raw scale scores are computed for both the eight-scale profile and two summary physical and mental health scales. The profile and the summary scales are each scored using weights derived from a national probability sample of the U.S. population. They are standardized to the U.S. population and norm-based so that the scores have a direct interpretation in relation to the distribution of scores in the general population with a mean of 50 and a standard deviation of 10. Higher scores indicate a better state of health. Ten items are recoded.

The U.S. general population norms were established from responses to the 1998 National Survey of Functional Health Status, which included the SF-36. These data were collected by the National Research Corporation, using a single wave of questionnaires mailed to randomly selected members of a panel of 550,000 households representative of the non-institutionalized adult U.S. population. Data were collected between October and December 1998. The overall response rate for this survey was 67.8% (Ware, Kosinski, & Dewey, 2000).

Internal consistency reliability coefficients of .82 and higher for the SF-36 were reported by Ware (2000, 2002). Factor analysis supported the SF-36’s construct validity in studies by Ware, Keller, Bentler, Sullivan, Brazier, & Gandek, (1994); Ware, Kosinski, Bayliss, McHorney, Rogers, & Raczek (1995) and Ware (2002). Figure 2 provides this study’s research model and illustrates the hypothesized relationships between the independent variables and the dependent variable, general self-efficacy.
Figure 2. Research Model
Data Analysis

Descriptive statistics summarized veterans’ frequencies, means and percentages on the sociodemographic variables. T-tests calculated whether older veterans who consider themselves generally self-efficacious report significantly better physical and mental health, and fewer social and environmental problems than older veterans who do not consider themselves generally self-efficacious. T-tests calculated whether there were significant differences on measures of self-efficacy, physical and mental health, and social and environmental problems between older veterans who use VA health care services and those who do not. Pearson’s Product Moment Correlation coefficients calculated the strength of the above relationships that were statistically significant. A multiple regression analysis was conducted to predict veterans’ perceived general self-efficacy from their scores on measures of physical and mental health, and social and environmental problems.
CHAPTER 4

RESULTS

This study’s statistical analysis was conducted using SPSS version 10.0. The overall data analysis was conducted in four stages. First, descriptive statistics summarized older veterans’ sociodemographics, medical and psychiatric diagnoses, and use of Department of Veterans Affairs (VA) health care. Second, bivariate correlational analysis examined significant relationships among the study’s major continuous variables. Third, independent samples t-tests determined significant differences between veterans who use VA health care and those who do not. Fourth, multiple regression analysis was conducted to appraise the extent to which measures of physical and mental health and social and environmental predict older veterans’ perceived general self-efficacy.

Cohen (1992a, b) defines statistical power as $1 - \beta$ where $\beta$ = probability of Type II error. Type II error is the acceptance of a false null hypothesis. ‘Power indicates the probability of rejecting the null hypothesis when it should be rejected’ (Krishef, 1987, p. 173). Power of .80 is the commonly accepted standard in scientific research (Cohen, 1988) and was used in this study in significance tests of sample $t$ ($\alpha = .05$) and the group $t$ ($\alpha = .05$) are needed to detect large differences between two independent sample means (Cohen, 1992a). This study’s N of 122 included 69 cases and 53 cases, respectively, of two independent groups of VA health care users and non-VA health care users, and thus had sufficient power to detect large differences in the group $t$ ($\alpha = .05$) and the group $t$ ($\alpha = .05$) are needed to detect large differences in significance tests of sample $r$ (Cohen, 1992a). This
study detected large differences in tests of the significance of the correlation coefficients of the major scales used in this research (Table 5).

**Descriptive Statistics**

Descriptive statistics summarized the frequency of veteran’s sociodemographic characteristics, their health care use, and their medical and psychiatric diagnoses.

**Sample characteristics**

Table 1 presents sociodemographic information about participants. The veterans in this study ranged in age from 60 to 86 years. The mean age was 69.78 years (SD = 7.26). The sample was composed of 115 males (94.3%) and 7 females (5.7%), N = 122. There were 107 whites (91.5%) and 10 African-Americans (8.50%). There were 83 (68.6%) married veterans; 18 (14.9%) were divorced; 11 (9.0%) were widowed; 7 (5.8%) were single, and 2 (1.7%) were separated. Sixty-nine veterans (57%) use VA health care, and 53 (43.4%) do not use VA health care. The majority of participants were white, married, and approximately 70 years old.

Income data consisted only of service-connection income, since the electronic patient records of those veterans using VA health care did not contain information about other sources of income. A “service-connection” is an official rating by the VA that a veteran’s illness is directly related to his or her active military service. Financial compensation (service-connected income) is provided according to a rating system. The rating ranges from 0% service-connected to 100%-service-connected. The compensation ranges from $108.00 to $2,299.00 per month, depending on the degree of disability. This income is tax-free. Of the 68 (55.7%) veterans who reported having service-connected income, the average annual compensation was $6,215.00 (this average rose to $7,206.79 when the income of an outlying case [income = $67,410] was included). More than half of the sample had service-connected incomes.
Table 1

Sample Sociodemographic Characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>VA users (n=69)</th>
<th>VA non-users (n=53)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Age Mean (SD)</td>
<td>68.33 (6.83)</td>
<td>71.67 (7.44)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>64 (92.1%)</td>
<td>43 (81.1%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>62 (92.8%)</td>
<td>51 (96.2%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>45 (65.2%)</td>
<td>38 (71.7%)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below $15,000</td>
<td>See Note.</td>
<td>6 (11.3%)</td>
</tr>
<tr>
<td>$15,001 – 30,000</td>
<td>-</td>
<td>15 (28.3%)</td>
</tr>
<tr>
<td>Below $30,001 - 45,000</td>
<td>-</td>
<td>13 (24.5%)</td>
</tr>
<tr>
<td>$45,001 – 60,000</td>
<td>-</td>
<td>5 (9.4%)</td>
</tr>
<tr>
<td>Above $60,001</td>
<td>-</td>
<td>7 (13.2%)</td>
</tr>
<tr>
<td>Not reported</td>
<td>-</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Service connection % (Dollar amount)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0% ($0)</td>
<td>4 (5.8%)</td>
<td>4 (7.5%)</td>
</tr>
<tr>
<td>10% ($108/mo.)</td>
<td>1 (1.4%)</td>
<td>3 (5.7%)</td>
</tr>
<tr>
<td>20% ($210/mo.)</td>
<td>3 (4.3%)</td>
<td>1 (1.9%)</td>
</tr>
<tr>
<td>30% ($324/mo.)</td>
<td>2 (2.9%)</td>
<td>3 (5.7%)</td>
</tr>
<tr>
<td>40% ($466/mo.)</td>
<td>2 (2.9%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>50% ($663/mo.)</td>
<td>3 (4.3%)</td>
<td>-</td>
</tr>
<tr>
<td>60% ($839/mo.)</td>
<td>2 (2.9%)</td>
<td>1 (1.9%)</td>
</tr>
<tr>
<td>70% ($1,056/mo.)</td>
<td>5 (7.2%)</td>
<td>1 (1.9%)</td>
</tr>
<tr>
<td>80% ($1,227/mo.)</td>
<td>4 (5.8%)</td>
<td>1 (1.9%)</td>
</tr>
<tr>
<td>90% ($1,380/mo.)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>100% ($2,299/mo.)</td>
<td>6 (8.7%)</td>
<td>8 (15.1%)</td>
</tr>
<tr>
<td>No service connection</td>
<td>36 (53.7%)</td>
<td>22 (41.5%)</td>
</tr>
</tbody>
</table>

Note. No data on VA-users’ non-service connected income available in VA records. Dash in service connection columns = no recipients reported in that category.
Sample Characteristics According to Combat and Non-Combat Status

Table 2 compares combat veterans with non-combat veterans on sociodemographic variables, physical and mental health status, health care consumption and scores on this study’s three standardized scales. Sixty percent of the combat veterans had a service connection compared to 39% of the non-combat veterans. A “service connection” is an official VA rating that a veteran’s illness or disability is directly related to his or her active military service. Financial compensation usually accompanies such a rating. The largest percentage of both combat and non-combat veterans served in Vietnam. Korean War veterans were the next largest percentage of both combat and non-combat veterans. Non-combat veterans reported more high cholesterol than combat veterans, but the percentage of combat veterans who reported having cataracts was more than double that of non-combat veterans. Combat veterans reported more than twice as much Post-Traumatic Stress Disorder (PTSD) than did non-combat veterans (28% and 11%, respectively). Depression was reported by 28% of the non-combat veterans and 18% of the combat veterans. Non-combat veterans reported more social and environmental problems as measured by the Social Needs Checklist and slightly better overall physical health than did the combat veterans. In all other categories in Table 2, combat and non-combat veterans reported roughly similar status.

Taken as a whole, this study’s “average” participant was 70 years old, white, male and married. He was likely to have a service-connected annual income of $6,200. He was likely to use the VA for his prescription needs; less so for mental health care, and minimally for inpatient care.
## Table 2

Sample Characteristics According to Combat and Non-Combat Status

<table>
<thead>
<tr>
<th>Variables</th>
<th>Combat Veterans (n=40)</th>
<th>Non-Combat Veterans (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>23 (57.5%)</td>
<td>44 (55.0%)</td>
</tr>
<tr>
<td>70-79</td>
<td>13 (32.5%)</td>
<td>28 (35.0%)</td>
</tr>
<tr>
<td>80 + older</td>
<td>4 (10.0%)</td>
<td>8 (10.0%)</td>
</tr>
<tr>
<td>(2 Missing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>33 (82.5%)</td>
<td>72 (90.0%)</td>
</tr>
<tr>
<td>AA</td>
<td>5 (12.5%)</td>
<td>5 (6.25%)</td>
</tr>
<tr>
<td>(5 Missing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>39 (98.0%)</td>
<td>74 (93.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>1 (2.0%)</td>
<td>6 (7.0%)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>27 (67.5%)</td>
<td>55 (68.75%)</td>
</tr>
<tr>
<td>*<em>Income</em> See Note.**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ $30,000</td>
<td>9 (22.5%)</td>
<td>11 (13.75%)</td>
</tr>
<tr>
<td>$30K-$60K</td>
<td>6 (15.0%)</td>
<td>12 (15.0%)</td>
</tr>
<tr>
<td>&gt;$60,000</td>
<td>3 (7.5%)</td>
<td>4 (5.0%)</td>
</tr>
</tbody>
</table>

**Note:** Above income data is that of non-VA users only. Similar information for VA users was not in the VA electronic patient record.

**Service-Connection Income (Mean)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>11 ($16,268)</td>
<td>18 ($12,897)</td>
</tr>
</tbody>
</table>

**Service Connection Status**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>24 (60.0%)</td>
<td>31 (38.7%)</td>
</tr>
</tbody>
</table>
### Variables

<table>
<thead>
<tr>
<th>Combat Veterans (n=40)</th>
<th>Non-Combat Veterans (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>N (%)</td>
</tr>
</tbody>
</table>

**Military Service Period(s). See Note.**

<table>
<thead>
<tr>
<th></th>
<th>Combat Veterans</th>
<th>Non-Combat Veterans</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWI</td>
<td>-</td>
<td>2 (2.5%)</td>
</tr>
<tr>
<td>WWII</td>
<td>10 (25.0%)</td>
<td>12 (15.0%)</td>
</tr>
<tr>
<td>Korea</td>
<td>10 (25.0%)</td>
<td>26 (32.5%)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>24 (60.0%)</td>
<td>35 (43.7%)</td>
</tr>
<tr>
<td>Gulf War Combat</td>
<td>1 (2.5%)</td>
<td>1 (1.25%)</td>
</tr>
</tbody>
</table>

**Note:** Of the 40 combat veterans, 9 (22.5%) reported more than one period of military service. Of the 80 non-combat veterans, 8 (10.0%) reported more than one period of military service.

### Physical Status

<table>
<thead>
<tr>
<th>Condition</th>
<th>Combat Veterans</th>
<th>Non-Combat Veterans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>19 (47.5%)</td>
<td>51 (63.7%)</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>15 (37.5%)</td>
<td>39 (48.7%)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>15 (37.5%)</td>
<td>19 (23.7%)</td>
</tr>
<tr>
<td>Arthritis</td>
<td>13 (32.5%)</td>
<td>23 (28.7%)</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>11 (27.5%)</td>
<td>26 (32.5%)</td>
</tr>
<tr>
<td>Cataracts</td>
<td>9 (22.5%)</td>
<td>8 (10.0%)</td>
</tr>
<tr>
<td>Cancer</td>
<td>8 (20.0%)</td>
<td>11 (27.5%)</td>
</tr>
<tr>
<td>COPD/Asthma</td>
<td>5 (12.5%)</td>
<td>15 (18.7%)</td>
</tr>
</tbody>
</table>

### Mental Health Status

<table>
<thead>
<tr>
<th>Condition</th>
<th>Combat Veterans</th>
<th>Non-Combat Veterans</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTSD</td>
<td>11 (27.5%)</td>
<td>9 (11.25%)</td>
</tr>
<tr>
<td>Depression</td>
<td>7 (17.5%)</td>
<td>22 (27.5%)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4 (10.0%)</td>
<td>11 (13.7%)</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>1 (2.50%)</td>
<td>4 (5.0%)</td>
</tr>
<tr>
<td>Bi-Polar Disorder</td>
<td>3 (7.50%)</td>
<td>7 (8.75%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>-</td>
<td>3 (3.75%)</td>
</tr>
</tbody>
</table>

### Health Care Consumption

<table>
<thead>
<tr>
<th></th>
<th>Combat Veterans</th>
<th>Non-Combat Veterans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use VA for Rxs</td>
<td>33 (82.5%)</td>
<td>77 (96.2%)</td>
</tr>
<tr>
<td>Mean # of Rxs</td>
<td>7.17</td>
<td>7.18</td>
</tr>
</tbody>
</table>
Outpatient Mental Health Visits

<table>
<thead>
<tr>
<th>Visits</th>
<th>VA (72.5%)</th>
<th>Non-VA (70.0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>29</td>
<td>56</td>
</tr>
<tr>
<td>3-5</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>≥ 6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Inpatient Days of Care

<table>
<thead>
<tr>
<th>Days</th>
<th>VA (70.0%)</th>
<th>Non-VA (85.0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>28</td>
<td>68</td>
</tr>
<tr>
<td>2-30</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>≥ 31</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. Dashes in columns = no responses in that category.

Social Needs Checklist Score (Mean)

<table>
<thead>
<tr>
<th></th>
<th>VA</th>
<th>Non-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>17.35</td>
<td>21.91</td>
</tr>
</tbody>
</table>

SF-36 Physical Component Summary Score (Mean)

<table>
<thead>
<tr>
<th></th>
<th>VA</th>
<th>Non-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>33.31</td>
<td>35.11</td>
</tr>
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</table>

SF-36 Mental Component Summary Score (Mean)

<table>
<thead>
<tr>
<th></th>
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<th>Non-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>33.40</td>
<td>32.80</td>
</tr>
</tbody>
</table>

General Self-Efficacy Scale Score (Mean)

<table>
<thead>
<tr>
<th></th>
<th>VA</th>
<th>Non-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>31.80</td>
<td>30.27</td>
</tr>
</tbody>
</table>

Requested Social Worker Contact (N)

<table>
<thead>
<tr>
<th></th>
<th>VA</th>
<th>Non-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>21</td>
<td>35</td>
</tr>
</tbody>
</table>

He was likely to be hypertensive, have high cholesterol and heart disease. He did not report depression, PTSD or anxiety and was not likely to have experienced combat.

Health Care Consumption

Of the veterans using VA health care, 45 (65.2%) reported 0-2 outpatient mental health visits during the 12 months prior to the date they completed this study’s questionnaires. Of the veterans not using VA health care, 41 (77.4%) reported 0-2 visits during the same period. Of the veterans using VA health care, 58 (84.1%) reported 0-1 days of inpatient hospital care in the preceding 12 months, while 40 (75.5%) of those not using VA health care reported 0-1 days in the same period. Veterans using VA health care reported
an average of 10 prescriptions (SD = 6.57). Veterans not using VA health care reported an average of 5 prescriptions (SD = 3.97). An independent samples t-test revealed significant differences between the two groups’ means in the number of prescriptions, \( t(119) = -5.24, p = .000 \). Using Cohen’s (1988) effect size index for the strength of the relationship between the means, there was a medium effect size, \( r = .433 \). These findings indicate that, in this sample, veterans who use VA health care used substantially more prescription medications than those who do not use VA health care. An independent samples t-test revealed no significant differences between VA users and non-VA users on the number of outpatient mental health visits, \( t(116) = -1.10, p = .274 \), or on the number of inpatient days of care, \( t(111) = -1.60, p = .111 \) within the past 12 months. Using Cohen’s (1988) effect size index for the strength of the relationship between the group means on the number of outpatient mental health visits, there was a small effect size, \( r = .102 \). Using Cohen’s index for the strength of the relationship between the group means on the number of inpatient days of care, there was a small effect size, \( r = .135 \). These findings indicate that both veterans using VA health care and veterans who do not use VA health care utilize approximately the same amounts of outpatient mental health care visits and inpatient days of care. Table 3 summarizes veterans’ use of prescriptions, outpatient mental health visits, and inpatient days of care.

Medical and Psychiatric Diagnoses

Medical and psychiatric diagnostic information was collected in two ways. The electronic patient chart of veterans using VA health care was used to gather diagnoses. A written questionnaire was provided to veterans not using VA health care. The list of medical diagnoses included 21 conditions. The most frequent conditions among both VA and non-VA users were hypertension (n = 71), high cholesterol (n = 55), heart disease (n = 38), arthritis (n = 36),
diabetes (n = 35) and prostate disease (n = 33). The least frequent conditions among both groups were seizures (n = 2 in both groups), hepatitis/liver disease (n = 2 among non-VA users, n = 0 among VA users), and ulcers (n = 2 among non-VA users, n = 1 among VA users). Veterans using VA health care reported twice as much heart disease, high cholesterol and prostate disease than non-VA users. VA-users reported four times as much coronary obstructive pulmonary disease than did non-VA users. Veterans not using VA care reported twice as much cancer than VA-users, and reported cataracts more than three times as frequently as VA-users. The differences between the VA and non-VA users were significant for three medical conditions: cancer, $t(117) = 3.104, p = .002$; cataracts, $t(117) = 3.475, p = .001$, and chronic obstructive pulmonary disease/asthma, $t(117) = -2.21, p = .029$.

The list of six psychiatric diagnoses included Post-Traumatic Stress Disorder (PTSD), anxiety, alcohol/substance abuse, depression, schizophrenia and bipolar disorder. The most frequently reported diagnosis across both VA and non-VA users was depression (n = 29, 23.7%). PTSD was the second most frequently reported diagnosis (n = 20, 16.3%). The remaining diagnoses’ frequencies, in descending order, were anxiety (n = 15, 12.2%), bipolar disorder (n=10, 8.1%), alcohol/substance abuse (n = 5, 4.0%) and schizophrenia (n = 3, 2.4%). Table 4 summarizes the participants’ medical and psychiatric diagnoses.
Table 3
Summary of Prescriptions, Outpatient Mental Health Visits and Inpatient Days of Care

<table>
<thead>
<tr>
<th>Variables</th>
<th>VA users (n = 69)</th>
<th>Non-VA users (n = 53)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prescriptions</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>17 (27.4%)</td>
<td>30 (68.1%)</td>
</tr>
<tr>
<td>6-9</td>
<td>24 (38.7%)</td>
<td>7 (15.9%)</td>
</tr>
<tr>
<td>10 or more</td>
<td>21 (33.8%)</td>
<td>7 (15.9%)</td>
</tr>
<tr>
<td><strong>Outpatient mental health visits in past 12 months</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>60 (86.9%)</td>
<td>45 (93.7%)</td>
</tr>
<tr>
<td>6-11</td>
<td>6 (8.69%)</td>
<td>1 (2.08%)</td>
</tr>
<tr>
<td>12 or more</td>
<td>3 (4.34%)</td>
<td>2 (4.16%)</td>
</tr>
<tr>
<td><strong>Inpatient days of care in past 12 months</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>59 (85.5%)</td>
<td>47 (93.7%)</td>
</tr>
<tr>
<td>6 or more</td>
<td>10 (14.4%)</td>
<td>2 (4.08%)</td>
</tr>
</tbody>
</table>

***p < .001
Table 4
Summary of Medical and Psychiatric Diagnoses

<table>
<thead>
<tr>
<th>Variables</th>
<th>VA Users (n = 69)</th>
<th>Non-VA users (n = 53)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Medical Diagnoses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>41 (59.4%)</td>
<td>30 (56.6%)</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>37 (53.6%)</td>
<td>18 (34.0%)</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>26 (37.6%)</td>
<td>12 (22.6%)</td>
</tr>
<tr>
<td>Prostate</td>
<td>23 (33.3%)</td>
<td>10 (18.9%)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>19 (27.5%)</td>
<td>17 (32.1%)</td>
</tr>
<tr>
<td>Arthritis</td>
<td>17 (24.6%)</td>
<td>19 (35.8%)</td>
</tr>
<tr>
<td>COPD/Asthma**</td>
<td>16 (23.1%)</td>
<td>4 (7.5%)</td>
</tr>
<tr>
<td>Lower Back Pain</td>
<td>12 (17.3%)</td>
<td>15 (28.3%)</td>
</tr>
<tr>
<td>Cancer**</td>
<td>6 (8.6%)</td>
<td>15 (28.3%)</td>
</tr>
<tr>
<td>Cataracts**</td>
<td>4 (5.7%)</td>
<td>14 (26.4%)</td>
</tr>
<tr>
<td>Hip Problems</td>
<td>9 (13%)</td>
<td>7 (13.2%)</td>
</tr>
<tr>
<td>Thyroid</td>
<td>7 (10.1%)</td>
<td>5 (9.4%)</td>
</tr>
<tr>
<td>Angina</td>
<td>3 (4.3%)</td>
<td>4 (7.5%)</td>
</tr>
<tr>
<td>Stroke</td>
<td>2 (2.8%)</td>
<td>4 (7.5%)</td>
</tr>
<tr>
<td>UTI</td>
<td>2 (2.8%)</td>
<td>3 (5.7%)</td>
</tr>
<tr>
<td>Gout</td>
<td>2 (2.8%)</td>
<td>5 (9.4%)</td>
</tr>
<tr>
<td>Irritable Bowel</td>
<td>2 (2.8%)</td>
<td>5 (9.4%)</td>
</tr>
<tr>
<td>Seizures</td>
<td>2 (2.8%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Ulcers</td>
<td>1 (1.4%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Seizures</td>
<td>2 (2.8%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Hepatitis/Liver</td>
<td>-</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Gall Bladder Disease</td>
<td>-</td>
<td>3 (5.7%)</td>
</tr>
<tr>
<td><strong>Psychiatric Diagnoses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>23 (33.3%)</td>
<td>6 (11.3%)</td>
</tr>
<tr>
<td>PTSD</td>
<td>18 (26.0%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>12 (17.3%)</td>
<td>3 (5.7%)</td>
</tr>
<tr>
<td>Bipolar</td>
<td>8 (11.5%)</td>
<td>2 (3.8%)</td>
</tr>
<tr>
<td>Alcohol/Substance</td>
<td>4 (5.7%)</td>
<td>1 (1.9%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>3 (4.3%)</td>
<td>-</td>
</tr>
</tbody>
</table>

**p < .05. Dash in column = no reported cases of particular diagnoses in sample.**
Bivariate Correlation Analysis

Scores on Measures of General Self-Efficacy, Social and Environmental Problems, and Physical and Mental Health

General self-efficacy was measured in this study by the General Self-Efficacy Scale (GSES, Schwarzer, 1992). It is a ten-item scale. Responses are made on a 4-point Likert scale, ranging from ‘not at all true’ to ‘exactly true.’ The scale is self-administered. The responses to all 10 items are summed to yield a final composite score with a range from 10 to 40. Higher scores indicate greater general self-efficacy. There is no recoding.

Across the entire sample, the average score on the GSES was 31.23 (n = 120, SD = 5.61). Among veterans using VA health care, the average score was 29.65 (n = 67, SD = 6.04). Among veterans not using VA health care, the average score was 33.22 (n = 53, SD = 4.29). An independent samples t-test reported a significant difference between the two group means on the GSES, $t(118) = 3.63, p = .000$. Using Cohen’s (1988) effect size index for the strength of the relationship between the means, there was a small effect size, $r = .317$. These findings provide evidence that veterans who do not use VA health care perceive themselves to be somewhat more self-efficacious than veterans who use VA health care.

Social and environmental problems were measured by the Social Needs Checklist (SNC; Cook, Freedman, Freedman, Arick, & Miller, 1996). It is a 15-item scale. Responses are made on a 4-point Likert scale, ranging from ‘none’ to ‘severe.’ The scale is self-administered. The responses to all 15 items are summed to yield a final composite score with a range from 15-60. Higher scores indicate more social and environmental problems. There is no recoding. A separate question asked the respondent if he or she would like a VA clinical social worker to contact them in the future for information or services. The answer was either yes or no. Forty-
seven percent of the total sample stated they would like a VA clinical social worker to contact them. Sixty-one percent of VA-users and 29% of non-VA users wanted this contact with a clinical social worker.

Across the entire sample, the average SNC score was 23.14 (n = 122, SD = 7.98). Among veterans using VA health care, the average score was 25.66 (n = 69, SD = 8.63). Among veterans not using VA health care, the average score was 19.86 (n = 53, SD = 5.59). An independent samples t-test reported a significant difference in means between the group means on the SNC, t(117) = -4.48, p = .000. Using Cohen’s (1988) effect size index for the strength of the relationships between the means, there was a medium effect size, r = .361. These findings provide evidence that older veterans who use VA health care have substantially more social and environmental problems than older veterans who do not use VA health care.

Veterans’ physical and mental health were measured by the Medical Outcomes 36-item Study Short-Form Health Survey (Ware, 1996). The SF-36 is a generic measure of eight health attributes using eight multi-item scales containing two to 10 items each. The eight health attributes are behavioral function and dysfunction, distress and well-being, objective reports and subjective ratings, and favorable and unfavorable evaluations of general health status (Ware, Kosinski, & Dewey, 2000). Raw scale scores are computed for both the eight-scale profile and two summary physical and mental component scores (PCS and MCS, respectively). The profile and the summary scales are each scored using weights derived from a national probability sample of the U.S. population. They are standardized to the U.S. population and norm-based so that the scores have a direct interpretation in relation to the distribution of scores in the general population with a mean of 50 and a standard deviation of 10. Higher scores indicate a better state of health. Ten items are recoded.
Across the entire sample, the average summary physical component score (PCS) was 36.23 (n = 117, SD = 4.23). The average PCS of veterans using VA health care was 35.60 (n = 66, SD = 3.87). The average PCS of veterans not using VA health care was 37.05 (n = 51, SD = 4.56). An independent samples t-test indicated a non-significant difference in PCS mean scores between the groups, t(116) = 1.58, p = .116. Using Cohen’s (1988) effect size index for the strength of the relationship between the group means on the PCS, there was a small effect size, r = .14. These findings provide evidence that veterans not using VA health care services had minimally better physical health than veterans who were using VA health care services.

Across the entire sample, the average summary mental component score (MCS) was 34.57 (n = 117, SD = 8.20). The average MCS for veterans using VA health care was 32.29 (n = 66, SD = 7.75). The average MCS for veterans not using VA health care was 37.51 (n = 51, SD = 7.90). An independent samples t-test reported a significant difference in means between the groups on the MCS scores, t(116) = 3.66, p = .000. Using Cohen’s (1988) effect size index for the strength of the relationship between the group means on the MCS, there was a medium effect size, r = .32. These findings provide evidence that veterans not using VA health care services had substantially better mental health than veterans who were using VA health care services.

A one-sample t test was conducted on the PCS and MCS to evaluate whether their mean was significantly different from 50, the norm-based mean established by previous research (Ware, 2000). The sample means for both the PCS and MCS were significantly different from 50. The VA-user sample data was t(65) = -30.18, p = .000 for the PCS, and t(65) = -18.53, p = .000 for the MCS. The non-VA user sample data was t(51) = -20.25, p = .000 for the PCS, and t(50) = -11.28, p = .000 for the MCS. These results indicate that both VA-users and non-VA users
in this sample evaluated both their physical and mental health as being significantly worse than did the general population.

Table 5 presents correlations between veterans’ consumption of VA health care services and their scores on the General Self-Efficacy Scale, the physical and mental health components of the SF-36, and the Social Needs Checklist. Table 6 presents the correlation matrix among this study’s major scales.

Hypothesis Testing

One-tailed T-tests, Pearson Product-Moment Correlation coefficients and multiple regression analysis were computed to test this study’s six hypotheses. The study’s sample was divided into veterans using VA health care and veterans who do not use VA health care.

Hypothesis #1: Older veterans’ consumption of health care services is negatively related to their level of perceived general self-efficacy.

Pearson’s Product-Moment Correlation determined the strength of the relationship between a veteran’s perceived general self-efficacy (GSE) and his/her consumption of health care services. Consumption was measured using number of prescriptions, number of inpatient days of care and number of outpatient mental health care visits. The correlation coefficients for GSE and number of outpatient mental health visits was $r = -.330$, $p=.000$, and, for GSE and number of prescriptions, $r = -.377$, $p=.000$. These data indicate a moderate inverse relationship exists among these variables, and supports the relationship postulated in hypothesis #1. There was a weak positive relationship, $r = .020$ and $p=.827$, between GSE and number of inpatient days of care. This finding does not support the relationship postulated in hypothesis #1.
Table 5
Correlations Between VA Health Care Consumption and Major Scales

<table>
<thead>
<tr>
<th>Major Scale</th>
<th># of Prescriptions</th>
<th>Outpatient Mental Health Visits</th>
<th>Inpatient Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSE</td>
<td>-.377**</td>
<td>-.330**</td>
<td>.020 (ns)</td>
</tr>
<tr>
<td>SNC</td>
<td>.497**</td>
<td>.477**</td>
<td>.143 (ns)</td>
</tr>
<tr>
<td>PCS</td>
<td>-.352**</td>
<td>-.112*</td>
<td>-.016 (ns)</td>
</tr>
<tr>
<td>MCS</td>
<td>-.478**</td>
<td>-.396**</td>
<td>-.068 (ns)</td>
</tr>
</tbody>
</table>

** p < .01, * p < .05, ns = not significant

Table 6
Bivariate Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social Needs Checklist</td>
<td>1</td>
<td>-.300**</td>
<td>-.653**</td>
<td>-.532**</td>
</tr>
<tr>
<td>2. Physical Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SF-36 PCS</td>
<td>-.300**</td>
<td>1</td>
<td>.007 (ns)</td>
<td>.125 (ns)</td>
</tr>
<tr>
<td>3. Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SF-36 MCS</td>
<td>-.653**</td>
<td>.007 (ns)</td>
<td>1</td>
<td>.595**</td>
</tr>
<tr>
<td>4. General Self-Efficacy</td>
<td>-.532**</td>
<td>.125 (ns)</td>
<td>.595**</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total score range | 15-60 | 21-48 | 14-75 | 10-40 |
| Mean (SD)         | 23.14 (7.98) | 36.23 (4.23) | 34.57 (8.20) | 31.23 (5.61) |
| Reliability (alpha level) | .8875 | .9261 | .8624 | .9018 |
| Skewness          | 1.08  | -.226 | .440  | -1.017 |

** p < .01, ns = not significant
Hypothesis #2: Older veterans’ physical health is positively related to their level of perceived general self-efficacy.

Pearson’s Product-Moment Correlation determined the strength of the relationship between veterans’ GSE and their scores on the physical component summary (PCS) of the SF-36. The correlation coefficient for GSE and the PCS was .125, \( p = .196 \), indicating a weak positive relationship among these variables and providing support for the relationship postulated in Hypothesis #2.

Hypothesis #3: Older veterans’ mental health is positively related to their level of perceived general self-efficacy.

Pearson’s Product-Moment Correlation determined the strength of the relationship between veterans’ GSE and their scores on the mental component summary (MCS) of the SF-36. The correlation coefficient for GSE and the MCS was .595, \( p = .000 \), indicating a strong positive relationship among these variables and providing support for the relationship postulated in hypothesis #3.

Hypothesis #4: Older veterans’ social and environmental problems are negatively related to their level of perceived general self-efficacy. The Pearson’s Product Moment coefficient for GSE and social and environmental problems as measured by the Social Needs Checklist (SNC) was -.532, \( p = .000 \), indicating a moderate inverse relationship between these variables. This finding supports the relationship suggested in hypothesis #4.

Hypothesis #5: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report lower levels of perceived general self-efficacy.
Across the entire sample, the average score on the GSES was 31.23 (n = 120, SD = 5.61). Among veterans using VA health care, the average score was 29.65 (n = 67, SD = 6.04). Veterans not using VA health care averaged 33.22 (n = 53, SD = 4.29). An independent samples t-test reported a significant difference in means between the groups, $t(117) = 3.77$, $p = .001$. This finding supports the relationship suggested in hypothesis #5. The point biserial correlation coefficient revealed a moderate inverse relationship between group membership and GSES scores, $R_{pb} = -0.31$, $p = .000$.

Hypothesis #6: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report poorer physical health.

Across the entire sample, the average summary physical component score (PCS) was 36.18 (n = 115, SD = 4.22). The average PCS of veterans using VA health care was 35.60 (n = 66, SD = 3.87). The average PCS for veterans not using VA health care was 37.05 (n = 51, SD = 4.56). An independent samples t-test reported no significant differences in PCS scores between the groups, $t(116) = 1.25$, $p = .116$. This finding does not support the relationship postulated in hypothesis #6. The point biserial correlation coefficient revealed no significant relationship between group membership and PCS scores, $R_{pb} = -0.14$, $p = .116$. An ancillary finding was that both VA and non-VA users reported significantly worse physical health than the general United States population, since a one-sample t-test demonstrated that both groups’ PCS means were significantly lower than 50, the norm-based mean established by previous research (Ware, 2000). The VA user sample data was $t(65) = -30.17$, $p = .000$. The non-VA user sample was $t(50) = -20.24$, $p = .000$. Taken as a whole, these findings show that, while older veterans who use the VA for their health care report the same levels of physical health as older veterans who do not, both groups report significantly worse physical health than that of the general population.
Hypothesis #7: As compared with older veterans who do not use VA health care services, older veterans who do use VA health care services will report poorer mental health.

Across the entire sample, the average summary mental component score (MCS) was 34.62. VA users’ average MCS score was 32.20 (n=66, SD = 7.73). Non-VA users’ average MCS score was 37.37 (n=52, SD = 7.89). An independent samples t-test reported a significant difference between the groups on the MCS score, t (116) = 3.66, p = .000. This finding supports the relationship postulated in hypothesis #7. The point biserial correlation coefficient Rpb was -.30, p = .001, indicating a moderate inverse relationship between group membership and MCS scores.

Hypothesis 8: As compared with older veterans who do not use VA health care services, older veterans who use VA health care services will report more social and environmental problems.

Across the entire sample, the average SNC score was 23.14 (n = 122, SD = 7.98). Among veterans using VA health care, the average score was 25.66 (n = 69, SD = 8.63). Among veterans not using VA health care, the average score was 19.86 (n = 53, SD = 5.59). An independent samples t-test reported a significant difference in means between the groups, t (117) = -4.48, p = .000. This finding supports the relationship postulated in hypothesis #8. The point biserial correlation Rpb was 0.35, p = .000, indicating a moderate positive relationship between group membership and SNC scores. Table 7 summarizes independent t-test results among this study’s major variables.
Table 7

Independent Samples T-Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>VA-Users</th>
<th>Non-VA Users</th>
<th>T (df)</th>
<th>Mean Difference</th>
<th>Rpb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Needs</td>
<td>25.66 (8.63)</td>
<td>19.86 (5.59)</td>
<td>-4.48 (117)</td>
<td>-5.798***</td>
<td>0.35</td>
</tr>
<tr>
<td>Physical Health SF-36</td>
<td>35.72 (4.10)</td>
<td>36.75 (5.03)</td>
<td>1.23 (118)</td>
<td>1.026</td>
<td>-0.14</td>
</tr>
<tr>
<td>Mental Health SF-36</td>
<td>32.20 (7.73)</td>
<td>37.37 (7.89)</td>
<td>3.58 (117)</td>
<td>5.169***</td>
<td>-0.30</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>29.65 (6.04)</td>
<td>33.22 (4.29)</td>
<td>3.63 (118)</td>
<td>3.569***</td>
<td>-0.31</td>
</tr>
</tbody>
</table>

Multivariate Analysis

A multiple regression analysis was conducted to appraise the extent that measures of physical, mental and social health predict older veterans’ general perceived general self-efficacy.

Hypothesis 9: Among older veterans, higher levels of physical and mental health and lower levels of health care consumption and social environmental problems predict higher levels of perceived general self-efficacy.

The six predictors were veterans’ scores on the Social Needs Checklist (SNC), their Physical Component Summary (PCS) and Mental Component Summary (MCS) scores on the SF-36, and three variables that measured their health care consumption: number of inpatient days of care in the past 12 months, number of outpatient mental health visits in the past 12 months and the number of prescriptions currently used. The dependent variable was veterans’ scores on the
General Self-Efficacy Scale (GSES). The four variables that had statistically significant relationships with the dependent variable were the MCS, \( r = .595 \); the SNC, \( r = -.532 \); number of prescriptions, \( r = -.377 \) and number of outpatient mental health visits, \( r = -.330 \). The PCS and the number of inpatient days did not have statistically significant relationships with the GSES.

The bivariate correlations of the independent variables used in the regression revealed a correlation of \( r = -.653 \) between the MCS and the SNC. This was the only correlation that was greater than an absolute value of .50. The highest variance inflation factor (VIF) among the independent variables used in the regression was 1.719. According to Myers (as cited in Stevens, 1999) and Chatterjee & Price, 1991 (as cited in Stine, 1995), this VIF is within acceptable limits (Myers Stepwise variable selection was used to build the regression equation).

Stepwise variable selection enters the independent variables one at a time, the order of entry determined by the variable that causes the greatest \( R^2 \) increase, given the variables that have already been entered into the model. The independent variable having the strongest correlation with the dependent variable is entered first. In subsequent steps, the remaining independent variable having the strongest partial correlation with the dependent variable is entered, controlling for the first independent variable. This process is repeated, partialling for previously entered variables at each step until there is no significant increase in \( R^2 \) by the addition of more independent variables (Norusis, 2000; Pedhazur, 1997; SPSS, 2000).

The final model included the Mental Component Summary (MCS) and the Social Needs Checklist (SNC) score, \( R^2 = .460, p < .001 \). The regression equation is:

Predicted General Self-Efficacy = 29.196 + .233 x (MCS) + (-.247) x SNC. Forty-six percent of the variance in older veterans’ general self-efficacy scores was explained by this model. The Mental Component Summary score (MCS) contributed the largest increment to \( R^2 \). The Social
Needs Checklist score (SNC) contributed the next largest increment to $R^2$. Table 8 presents the summary data.

### Table 8

**Summary of Stepwise Regression Analysis for Variables Predicting Older Veterans’ Perceived General Self-Efficacy**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>Increment to $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Component Summary of SF-36 (MCS)</td>
<td>.233</td>
<td>.058</td>
<td>.369</td>
<td>.377</td>
</tr>
<tr>
<td>Social Needs Checklist (SNC)</td>
<td>-.247</td>
<td>.070</td>
<td>-.239</td>
<td>.084</td>
</tr>
</tbody>
</table>

$R^2 = .460$, ($p < .001$).
CHAPTER 5
DISCUSSION

This study examined older veterans’ self-reported physical, mental and social health within the broader context of their self-reported general self-efficacy. The purpose of this study was to discern older veterans’ coping capacities and their needs for social work intervention.

This chapter’s first section compares the study’s data on older veterans’ psychosocial status and self-efficacy with previous research. The second section discusses the overall psychosocial state of the 122 veterans who participated in this study and their self-reported general self-efficacy. The third section discusses this study’s implications for social work practice and research. The fourth section discusses policy and theory implications. The chapter concludes by discussing methodological limitations and future research.

The concept of triadic reciprocal causation (Bandura, 1997) is fundamental in understanding how individuals negotiate day-to-day problems. Triadic reciprocal causation postulates that human functioning is the result of the interaction among behavior, personal factors that include cognitive, affective and physiological states and environment. These three interactions are all bi-directional since each component influences, and is influenced by, the other two components.

Older persons, and older veterans, live at the confluence of these overall dynamics. Older adults reflect their self-efficacy in their appraisals and misappraisals of particular challenges (Bandura, 1997). Successful cognitive restructuring by older adults using self-efficacy as a coping mechanism produces concrete evidence of the theory’s relevance in everyday life. In this
study, previous research on older adults’ and older veterans’ psychosocial status and self-efficacy is examined with this triadic reciprocal causation in mind.

Previous Research on Older Adults and Veterans Compared with this Study’s Data

Previous research on the general population of older adults in the United States has provided information on the challenges they face in multiple life domains. Eleven percent of elders live below the federal poverty level and the majority of this group are women and African-Americans (Administration on Aging, 2002; Federal Interagency Forum, 2000). Many elders live in inadequate housing and their financial realities prohibit moving into better living arrangements (HUD, 1999). Elders with limited means are often unable to gain access to adequate medical care (Broyles, Narine, & Brandt, 2000; Rochon, Bronskill, & Gurwitz, 2002). Eighty percent of elders have poor nutrition (National Policy and Resource Center on Nutrition and Aging, 2003). Four percent of those age 65 and older lived in nursing homes and 64% of community-dwelling elders need unpaid home care provided by family and friends (Federal Interagency Forum, 2000).

Twenty percent of people age 55 and above have anxiety and mood disorders and/or cognitive malfunction (AAGP, 2002). Suicide rates are highest among adults 85 and older (AAGP, 2002; Holsinger, 1999). Most elders receive their mental health care from primary care physicians and not from specialized mental health providers (AAGP, 2002).

Older veterans’ general psychosocial status is similarly problematic. The Department of Veterans Affairs (VA) estimates that 250,000 veterans of all ages are homeless and that 40% of this group has severe mental illness (VA Brief, 1999; VA Homeless Programs, 2001). Thirty percent of all veterans have incomes at or below the federal poverty level and also have no access to medical care except that provided by the VA (Starfield, Parrino, Headley, & Ashton,
1995). More older veterans age 65 and older report their health as fair to poor than did veterans below 65. Sixteen percent of older veterans report difficulties in Activities of Daily Living and 7% report difficulty in Instrumental Activities of Daily Living (ADLS; Katz, 1983; IADLS; Lawton & Brody, 1969). Older veterans have severe vision, hypertension and arthritis problems, and many also have Post-Traumatic Stress Disorder (PTSD; McFarlane, 1990; NSV, 2001). Older veterans are particularly vulnerable to PTSD and suicide as a result. In a study of 9,000 older veterans, Llorente et al. found that veterans were more likely to have suicidal ideation if they had simultaneous poor physical health or depression (Llorente et al., 2002). Many World War II veterans have not sought PTSD treatment, and PTSD in older veterans is frequently misdiagnosed (Port, Engdahl, & Frazier, 2001).

This study’s data reflected substantial psychosocial problems among older veterans. Twenty-three percent reported depression and 16% reported PTSD. Fifty-seven percent reported hypertension and 30% reported heart disease and arthritis. Forty-one percent reported moderate or severe financial problems. Thirty-two percent reported moderate or severe personal stress that included worry, sadness, frustration and anger. Thirty-seven percent reported both housing problems and inadequate nutrition. Twenty-one percent reported moderate to severe family problems, and 29% had mild to severe ADL impairments. Twenty-three percent stated that their health was worse now than one year ago, and 23% said that their general health was fair to poor. A large majority reported functional limitations in areas such as climbing stairs, walking anywhere from several hundred yards to one mile, and moderately strenuous activities such as moving a table or playing golf. Forty-four percent reported having accomplished less in the past four weeks as a result of emotional problems. Sixty-two percent stated that either their physical or emotional health significantly impaired their normal social activities in the past month.
This summary comparison of the psychosocial status of older adults versus older veterans in the general population reveals that older veterans have more psychosocial challenges, particularly in the areas of income, housing, and mental health. Further, the specific data from this study’s sample confirm the overall plight of many older veterans. The data show a statistically significant relationship between veterans’ service-connected income and their reported housing problems. This study was not able to investigate the relationship between VA health care users’ housing problems and their income from other sources such as Social Security and pensions since VA patients’ electronic records provided limited information on this factor. This information was absent because veterans declined to provide it during initial intake. However, if the data show a significant connection between service-connected income (data that was available in the VA patients’ electronic records) and reported housing problems, it is within the realm of possibility that a similar connection might exist for veterans without service-connected income. Service-connected income is financial compensation for veterans based on the VA’s assessment that her or his illness is directly related to her or his active military service. More than half the sample had such income. Since this income is tied to illness and disability, it may reflect housing problems if the veteran’s physical status prohibits access to adequate or affordable accommodations.

A national study of veterans ages 18-98 in 1999 produced an average Physical Component Summary (PCS) score on the SF-36 of 36.91 for veterans using VA health care, and an average Mental Component Summary (MCS) score on the SF-36 of 45.08 (Health Status and Outcomes of Veterans, 2000). Veterans in the Salisbury, North Carolina region (n = 160,929) veterans were sampled in the same study. Thirty-nine percent (N = 62,400) were ages 65-98. Veterans using the Salisbury VA Medical Center for their health care (N = 19,422) had an
average score of 35.23 on the PCS, and 44.41 on the MCS (Health Status and Outcomes of Veterans, 2000). There was no significant difference between this study’s sample and that of the larger 1999 study on the PCS, \( t (67) = .991, p = .325 \). The \( r^2 \) was .026, indicating a small positive relationship between the PCS scores of this study’s sample and the PCS scores of the veterans using health care at the SVAMC in the 1999 study. There was a significant difference between this study’s sample on the MCS and that of the larger 1999 study, \( t (66) = -12.914, p = .000 \). The \( r^2 \) was .61, indicating a large positive relationship between the MCS scores of this study’s sample and the MCS scores of the veterans using health care at the SVAMC in the 1999 study.

Older veterans’ mental health is also worse than that of older adults in the general population. As noted earlier, 20% those age 55 and above in the general population have mood and/or anxiety disorders (AAGP, 2002). Older veterans’ mental health is poorer as reflected by the fact that 40% of homeless veterans (100,000 individuals) have severe mental illness and that PTSD is particularly prevalent (VA Brief, 1999; VA Homeless Programs, 2002; McFarlane, 1990; NSV, 2001). Sixteen percent of this study’s sample reported having PTSD, a disorder found in one study of World War II and Korean War veterans to decline in the years immediately after their combat, but to re-emerge with intensity in late life (Lindman, Engdahl, & Frazier, 2001). The VA is a nationally recognized leader in the diagnosis and treatment of PTSD (Kudler, 1991; Roswell, 2002), and recognizes that more needs to be done in both research and treatment of PTSD (VA HSR&D Management Brief, 1999). In this study, although 16% of participants reported having PTSD, it may well be that the actual number is higher since PTSD often is misdiagnosed and often is exacerbated by other late-life stressors such as retirement, loss of loved ones, and physical debility (Schnurr, 1994).
The General Self-Efficacy and Overall Status of the 122 Veterans in this Study

The General Self-Efficacy Scale (GSES; Schwarzer, 1992) was used to measure the perceived general self-efficacy of this study’s 122 older veterans. It is a 10-item scale. Responses are made on a 4-point Likert scale. The scale is self-administered. The responses to all 10 items are summed to yield a final composite score with a range from 10-40. Higher scores indicate greater general self-efficacy. General self-efficacy is the belief that one can capably respond to a wide variety of stressors and act adaptively to master such challenges. Capable response derives from mastery experiences, vicarious experiences, verbal persuasion and/or somatic/affective states. This study’s 122 older veterans’ mean score on the GSES was 31.23 of a possible 40 points. Veterans who use VA health care had a mean of $29.65, SD = 6.04$. Veterans who do not use VA health care had a mean of 33.22, $SD = 4.29$. Since the general self-efficacy construct is central to this research, it is worthwhile to examine participants’ responses to the GSES’ individual items in somewhat greater detail.

Examining the entire sample together, most of the responses by far were in the ‘moderately true’ category. Anywhere from 49% to 58% answered in this way on any particular question. The next largest number answered in the “exactly true” category (anywhere from 13% to 36% on any particular question). Of the responses at the scale’s opposite end, the question having the largest number of ‘hot at all true’ responses was question #2, ‘If someone opposes me, I can find the means and ways to get what I want.’ Sixteen respondents answered “hot at all true” on this question (13% of the entire sample). Question #3, ‘It is easy for me to stick to my aims and accomplish my goals” was answered ‘hot at all true” by 11 (.09%) veterans. Question #3 had the second largest number of ‘hot at true’ responses. Thus the responses are skewed in the direction of greater rather than lesser general self-efficacy.
The sample of 122 veterans reported several areas of concern on the Social Needs Checklist SNC. Fifty-three percent reported financial problems in the mild to severe range (n = 65, 53%), personal stress (worry, sadness, frustration, anger) in the moderate to severe range (n = 50, 41%), family problems in the moderate to severe range (n = 26, 21%) and nutritional problems in the mild to moderate range (43%). Combined with below average physical and mental health status as reported by the SF-36, this sample reported noticeable proportions of personal and family stress and financial and nutritional concerns.

At the same time that they reported the aforementioned multiple problems, many participants also reported levels of relatively high perceived general self-efficacy. This degree of general self-efficacy would seemingly serve as an adequate reservoir of resiliency in the face of multiple health and emotional problems. These counterintuitive results might be explained by the possibility of social desirability response bias. This bias is ‘the tendency of people to do or say things that will make them or their reference group look good’ (Rubin & Babbie, 2001, p. 178).

The three scales used in this study asked questions about financial status, personal relationships, functional limitations, mental health and the construct of general self-efficacy. The construct itself was foreign to the participants. Their responses might have been affected by the nature of the self-efficacy questions, the possible burden of completing three scales, their personal schedules at the medical center and the fact that the researcher was in close proximity during their completion of the scales. Confidentiality was assured but anonymity, at least in the actual interview and thereafter, was not. The participants might have interpreted the combination of scales as more of a referendum on their personal self-confidence than anything else.
Inflated reports of general self-efficacy may also be a consequence of the data collection location for the non-VA user sample. As already mentioned, the researchers collected data on the non-VA users at North Carolina statewide annual conferences of the Disabled American Veterans and the Veterans of Foreign Wars. The conferences were held on successive weekends in a hotel. The setting was quite different from that of the data collection at the Salisbury VA Medical Center. At the conferences, the atmosphere was obviously one of camaraderie, reminiscing and festivity. The researchers’ interviews and questions concentrated on older veterans’ psychosocial problems, a topic far removed from the conferences’ intents. It might well have been that participants at these conferences would be less likely to admit to psychosocial stressors and may thus have skewed the sample’s data by providing exaggerated reports of general self-efficacy.

**Social Work Practice and Research Implications**

A first practice implication is connected to VA social workers’ assessments of older veterans’ general self-efficacy (GSE). Three of this study’s significant outcomes reflected VA social workers’ continuing needs for comprehensive client assessment methods. Effective social work practice examines client strengths. An older veterans’ perceived GSE is a potential strength that she or he can use to cope with day-to-day problems. VA social workers could, for example, use a standardized GSE scale (Schwarzer, 1992) prior to a series of group sessions that provide GSE instruction and administer the same scale at the group’s conclusion to assess clients’ progress.

A second practice implication is that social workers serving older populations other than veterans should be aware of GSE’s components and these components’ practice applications. Self-efficacy is the aggregate of four processes: mastery experiences, vicarious learning, social
persuasion and the influence of somatic/emotional states. These four domains are areas for social work intervention. First, social workers can help clients accumulate mastery experiences by teaching them skills in dealing with specific problems and providing positive feedback when a client achieves a particular objective. Second, vicarious learning is developed as social workers model desirable behaviors for their clients. Workers can also use groups as venues for clients to vicariously judge their own coping abilities as they hear and see their peers accomplish tasks that they may have previously considered impossible. Third, social workers use verbal persuasion when they affirm clients’ successes and help clients establish patterns of positive interpretations. Fourth, the potential for somatic and/or emotional states to negatively affect clients’ performances can be offset as social workers help clients realistically assess anxiety and provide relaxation techniques. As social workers assist clients build these incremental successes, they also help clients enhance their overall perceptions of being generally self-efficacious.

A third practice implication regards the assessment of older veterans’ social and environmental problems (as exemplified in this study by the Social Needs Checklist) (Cook, Freedman, Freedman, Arick, & Miller, 1996). As a group, all veteran participants reported mild levels of social and environmental problems. However, it is noteworthy that VA-users reported significantly more social and environmental problems than their non-VA user peers. This finding justifies efforts by VA social workers to assess the reasons for such a difference, and to provide interventions that lessen VA-users’ social and environmental problems.

A finding of related interest was that, when asked if they would like to see a social worker for information or services, 67% of the VA-users said yes. This was the final question on the Social Needs Checklist used in this study (Cook, Freedman, Freedman, Arick, & Miller, 1996). VA social work is usually identified by VA patients, families, and staff as the discipline
that can help with practical problems such as those identified in the Social Needs Checklist. This finding provides further evidence of VA social work’s centrality in the VA system of health care, perceived especially in this light by older veterans themselves. The social work practice implication of VA-users’ higher rates of social and environmental problems (e.g., housing, transportation, family stress) is that there may exist an untold number of veterans who are dealing with multiple stressors. Compromised physical and/or mental health, when compounded by significant social and environmental problems, may exhaust an older veteran’s coping capacities. This in turn may lead to unnecessary hospital admissions and/or problems in the community. VA social workers already perform comprehensive psychosocial assessments. However, this data shows that a large percentage of veterans want social work services, but perhaps are not asked. A practice change that would accommodate such veterans might be for VA social workers to educate other professionals about social work services, and to stress the importance of other professionals making older veterans aware of easy access to VA social workers. VA social workers may then help in reducing the number of unnecessary hospital admissions by dealing with veterans’ social and environmental problems before the veteran reaches a crisis point.

This study was descriptive since it measured and reported characteristics of older veterans, and was cross-sectional since it took these measurements at one time only. It contributed to social workers’ understanding of one particular subgroup of the older population: military veterans. It demonstrated the relevance of studying the general self-efficacy construct in the lives of older veterans. It demonstrated the value of taking three simultaneous measures of older veterans’ well-being. These were measures of physical and mental health; social and
environmental problems; and general self-efficacy. This study provided a more complete profile of older veterans by using these three measures simultaneously.

The VA has identified patient-centered care as one of eight high priority research areas (VA Access to Care, 2002). It has specifically called for research that addresses the psychological component of illness and for "evaluations of innovative interventions [that] meet the emotional care needs of patients" (VA Access to Care, 2002, p. 17). The current study’s results suggest several implications for social work research on older veterans.

One implication is the value of research on self-efficacy interventions with older veterans. A one-group pretest-posttest control group design could randomly assign participants to either an experimental or control group. Participants could be randomly divided via taking every 10th name from a list of interested participants and assigning them to either the experimental or control group. The experimental group could then be provided with self-efficacy education and practice self-efficacy techniques, while also completing the General Self-Efficacy scale before starting and after completing such education and practice. The control group would not receive the self-efficacy education and practice techniques but would complete the General Self-Efficacy scale before and after their group experience. If the experimental groups’ general self-efficacy reports improved more than the control group, this finding might support the hypothesis that self-efficacy education and practice will result in improved self-efficacy assessment.

Other experimental and non-experimental group and individual designs might also be conducted with older veterans living in different venues such as VA-operated nursing homes, and in the private homes of veterans who receive VA home health services in order to prevent long-term care placement. Social workers can direct this research while simultaneously providing clinical care to older veterans.
A second research implication is the value of developing a profile of older veterans’
general self-efficacy so as to identify potentially high consumers of VA health care services. The
current study’s results provide initial associations between older veterans’ general self -efficacy,
their physical, mental and social health, and their consumption of VA health care services.
Social work research that continues to gather such information may help VA social workers
provide outreach and education to older at-risk veterans.

A third research implication is the targeting of self-efficacy interventions towards older
veterans who suffer from Post-Traumatic Stress Disorder (PTSD). The VA provided specialized
outpatient PTSD treatment to over 57,000 veterans and specialized inpatient PTSD treatment to
over 5,000 veterans in fiscal year 2001 (Roswell, 2002). Research on self-efficacy interventions
in both individual and group therapy with this particularly vulnerable subset of older veterans
could reduce the incidence of unnecessary hospital admissions.

A fourth research implication is the relatively simple administration of the three separate
paper-and-pencil scales used in this study (The General Self-Efficacy Scale, The Social Needs
Checklist, and the SF-36 Health Survey). Most participants completed the scales in 10-15
minutes, and reported little or no difficulty in understanding any of the items. (Veterans who do
not use VA health care also completed a checklist that gathered sociodemographic data). All the
scales are in Appendix A. The three scales, in combination with the veteran’s medical
information, provided a broad summary of the participant’s current psychosocial status.
Replication of this study by social workers with other segments of the older population would
appear to be fairly simple.
Policy and Theory Implications

An initial policy implication stems from demographic trends among older veterans. There was an 85% increase in enrollment for VA health care by veterans 65 and older during the period 1999-2002 (Department of Veterans Affairs, 2003b). There will be approximately 9 million veterans 65 and older in the mid 2010s as Vietnam veterans age. The fastest growing cohort of older veterans is the 85 and older group, which is expected to increase nearly 600% to 1.3 million in 2010 (Fonseca, Smith, Klein, & Sheldon, 1996). In light of these increases, VA health care policy is under continuous review, especially regarding cost-efficient use of care and facilities. This study’s data showed significant correlations between older veterans’ general self-efficacy, their mental health and their use of VA pharmaceutical and outpatient mental health services.

As the VA continues its metamorphosis from a largely inpatient, hospital-based health care system to an outpatient, community-clinic model, the current study supports the value of preventive care for older veterans. Patient-centered care policies translate into patient-centered clinical procedures. Studies such as this which demonstrate connections between health care consumption and self-efficacy evaluations have potential utility for policy development. VA health care policies can emphasize the importance of screening older veterans not only for their self-efficacy reports and their social and environmental needs, but also the value of such screening with simultaneous use of the SF-36. This triad of assessment tools may provide further data about older veterans’ vulnerabilities and thus contribute to policies that emphasize outreach and assessment. Studies such as this which compare older VA-users with non-VA users on measures of psychological and physical health may contribute to policies that encourage maximum clinical efficiency for the VA as it competes with the private health care sector.
Studies of this type provide initial profiles of older veterans’ psychological strengths and weaknesses can lead to social work policies that stress the development of new assessment tools.

A third policy implication stems from this study’s finding that 67% of VA-users (n = 41) and 31% of the non-VA users (n = 15) when asked, stated they wanted to see a social worker for information or services. These surprisingly high percentages may affect VA policy as VA planners examine patient flow through the SVAMC. The policy goal would be to make sure that social work staffing is such that social workers are in the right spots at the right time to provide the right service. An ancillary policy implication would be to make sure that patient needs are not missed due to “stovepiping.” The VA uses this term to indicate problems that stem from a lack of coordinated care among different departments and disciplines. The VA’s national Office of Care Coordination is addressing these concerns (VA Office of Care Coordination, 2004), but this new information about heretofore unrevealed client demand, if replicated in other studies at other VA venues, may affect VA staffing policies and procedures.

The first theoretical implication of this study is its data-driven suggestion of correlations between older veterans’ general self-efficacy and their psychosocial status. General self-efficacy’s hypothesized relationships with older veterans’ VA health care consumption, their physical and mental health and their social and environmental problems were supported. The GSE construct’s hypothesized relationships with VA-users and non-VA users were supported. The construct had a realistic application in revealing how older veterans regard their capacities to cope with a wide variety of stressors.

The second theoretical implication of this study is that it did not establish a causal relationship between the construct and older veterans’ psychosocial status. Due to its general nature, it does not measure specific behavior change (Schwarzer, 1998a). This study’s data could
not lead to conclusions that a participant’s psychosocial status was the result of either low or high levels of general self-efficacy. The converse supposition would also be untenable. The triadic reciprocal nature of self-efficacy, discussed earlier in this study, may help to explain the construct’s inability to determine causality. Self-efficacy is the product of personal factors such as cognition, affect, and biology; behavior, and environmental influences (Pajares, 2002). What a research participant reports about his or her sense of general self-efficacy on any given day may change due to the influence of environmental stressors or personal factors. However, the triadic composition of the self-efficacy construct does not render it meaningless, since research has amply demonstrated its contribution to improved functioning and quality of life (Bandura, 1977, 1997a). This study acknowledges the construct’s limitations.

A third theoretical implication of this study is the construct’s positive relationship with health-improving behaviors as documented in earlier research (Bandura, 1998; Holahan & Holahan, 1987; Schwarzer & Fuchs, 1995). An individual’s general self-efficacy has been associated with ceasing harmful health behaviors (e.g., smoking). The current study determined that older veterans’ perceived general self-efficacy is positively related to their physical and mental health. The utility of the construct in promoting health-improving behaviors among older veterans may be tested through individual and group self-efficacy education and practice.

Methodological Limitations and Future Research

There were several limitations to this study. First, due to the cross-sectional and purposive nature of the research, the sample’s homogeneity, and the relatively small sample size, no generalizations to the larger population of older veterans are possible. Second, since the Salisbury VAMC’s mental health professionals often made referrals to the study, the VA-user sample may have been disproportionately skewed towards mental health patients. This might
have had the effect of lowering average scores on the mental health component summary (MCS) of the SF-36.

Third, the recruitment process was shaped by the hospital Institutional Review Board’s close oversight, in that prospective participants could only be recruited by referral or by the distribution of informational flyers. The author was prohibited from recruitment via a mass mailing due to strictures enforced by the hospital’s IRB, which was in turn enforcing the stipulations of the federal Health Insurance Portability and Accountability Act (HIPPA). The HIPPA law also complicated the scheduling of interviews with the VA-user participants, who could be contacted only after being referred by a VA clinician, unless they referred themselves. These factors significantly slowed the data gathering process.

Fourth, the data all came from self-report and might have been affected by social desirability bias. Fifth, the administration of the scales to the non-VA users took place during annual conferences of veteran service organizations. The atmosphere was different from that in which the VA-users completed the scales, which was a private office in the Medical Center. This factor might have caused, in some cases, a superficial or hurried response to some of the questions.

Sixth, self-selection in the non-VA user group might have produced a sample that may differ in some ways from the typical older non-VA user. The non-VA users in this study were obviously men and women for whom annual attendance at veteran service organization conventions was a regular occurrence. Their attendance might be influenced by their financial capacity to travel and stay at the convention hotel, as well as by supportive spouses and good physical health. Were these non-VA users truly representative of all non-VA users?

Future research should first of all replicate this study at other VA medical centers and with other comparison groups of older veterans who do not use VA health care services. Second, such
studies should be more demographically representative, since this sample was 92% white and 94% male. Third, this study revealed that 67% of the VA-users (n = 41) and 31% of the non-VA users (n = 15), when asked, stated they wanted to see a social worker for information or services. It is important to know what kinds of services these respondents want. A similar study that asked the same question of veterans at another VA medical center reported that 31.4% of veterans wanted to see a social worker (Cook, Freedman, Freedman, Arick, & Miller, 1996). VA social workers provide a range of services, from individual and family counseling to case management (VA Social Work, 2003). Future research might gather similar information and delve more deeply into the nature of this client demand. Fourth, the ongoing reliability of the Social Needs Checklist might bear further examination. The creators of the scale reported a test-retest reliability score of .89 (Cook, Freedman, Freedman, Arick, & Miller, 1996). This is a relatively new scale and is designed for rapid assessment. Replicate studies would provide additional information about this scale’s clinical utility.
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APPENDICES
APPENDIX A

GENERAL SELF EFFICACY SCALE
General Self-Efficacy Scale

Instructions: Please circle your answer.

1. I can always manage to solve difficult problems if I try hard enough.
   Not at all true   Hardly true   Moderately true   Exactly true

2. If someone opposes me, I can find the means and ways to get what I want.
   Not at all true   Hardly true   Moderately true   Exactly true

3. It is easy for me to stick to my aims and accomplish my goals.
   Not at all true   Hardly true   Moderately true   Exactly true

4. I am confident that I could deal efficiently with unexpected events.
   Not at all true   Hardly true   Moderately true   Exactly true

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
   Not at all true   Hardly true   Moderately true   Exactly true

6. I can solve most problems if I invest the necessary effort
   Not at all true   Hardly true   Moderately true   Exactly true

7. I can remain calm when facing difficulties because I can rely on my coping abilities.
   Not at all true   Hardly true   Moderately true   Exactly true

8. When I am confronted with a problem, I can usually find several solutions.
   Not at all true   Hardly true   Moderately true   Exactly true
9. If I am in trouble, I can usually think of a solution.
   - Not at all true
   - Hardly true
   - Moderately true
   - Exactly true

10. I can usually handle whatever comes my way.
    - Not at all true
    - Hardly true
    - Moderately true
    - Exactly true

    Thank you.
APPENDIX B

SF-36
Your Health in General  
(SF-36)

Please answer every question. Some questions may look like others, but each one is different. Please take the time to read and answer each question carefully, and mark an ☒ in the one box that best describes your answer. Thank you for completing this survey!

1. In general, would you say your health is:

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="1" alt="Box 1" /></td>
<td><img src="1" alt="Box 2" /></td>
<td><img src="1" alt="Box 3" /></td>
<td><img src="1" alt="Box 4" /></td>
<td><img src="1" alt="Box 5" /></td>
</tr>
</tbody>
</table>

2. Compared to one year ago, how would you rate your health in general now?

<table>
<thead>
<tr>
<th>Much better now than one year ago</th>
<th>Somewhat better now than one year ago</th>
<th>About the same as one year ago</th>
<th>Somewhat worse now than one year ago</th>
<th>Much worse now than one year ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="1" alt="Box 1" /></td>
<td><img src="1" alt="Box 2" /></td>
<td><img src="1" alt="Box 3" /></td>
<td><img src="1" alt="Box 4" /></td>
<td><img src="1" alt="Box 5" /></td>
</tr>
</tbody>
</table>
3. The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes, limited a lot</th>
<th>Yes, limited a little</th>
<th>No, not limited at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>b. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>c. Lifting or carrying groceries</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>d. Climbing several flights of stairs</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>e. Climbing one flight of stairs</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>f. Bending, kneeling, or stooping</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>g. Walking more than a mile</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>h. Walking several hundred yards</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>i. Walking one hundred yards</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>j. Bathing or dressing yourself</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>
4. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>

a. Cut down on the amount of time you spent on work or other activities ........................................... □........□........□........□........□

b. Accomplished less than you would like ..................... □........□........□........□........□

c. Were limited in the kind of work or other activities ........................................................................ □........□........□........□........□

d. Had difficulty performing the work or other activities (for example, it took extra effort) ............... □........□........□........□........□

5. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>

a. Cut down on the amount of time you spent on work or other activities ........................................... □........□........□........□........□

b. Accomplished less than you would like ..................... □........□........□........□........□

c. Did work or other activities less carefully than usual ........................................................................ □........□........□........□........□
6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

7. How much bodily pain have you had during the past 4 weeks?

<table>
<thead>
<tr>
<th>None</th>
<th>Very mild</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Very Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>□1</td>
<td>□2</td>
<td>□3</td>
<td>□4</td>
<td>□5</td>
<td>□6</td>
</tr>
</tbody>
</table>

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>□1</td>
<td>□2</td>
<td>□3</td>
<td>□4</td>
<td>□5</td>
</tr>
</tbody>
</table>
9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks...

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>

a. Did you feel full of life? ........................................... □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

b. Have you been very nervous? ................................. □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

c. Have you felt so down in the dumps that nothing could cheer you up? .......................................................... □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

d. Have you felt calm and peaceful? ............................. □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

e. Did you have a lot of energy? ................................. □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

f. Have you felt downhearted and depressed? ........ □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

g. Did you feel worn out? ........................................... □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

h. Have you been happy? ............................................. □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5

i. Did you feel tired? ................................................ □ 1 ...... □ 2 ...... □ 3 ...... □ 4 ...... □ 5
10. During the past 4 weeks, how much has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>□1</td>
<td>□2</td>
<td>□3</td>
<td>□4</td>
<td>□5</td>
</tr>
</tbody>
</table>

11. How TRUE or FALSE is each of the following statements for you?

<table>
<thead>
<tr>
<th>Definitely true</th>
<th>Mostly true</th>
<th>Don’t know</th>
<th>Mostly false</th>
<th>Definitely false</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>

a. I seem to get sick a little easier than other people........................................... □1 .......... □2 .......... □3 .......... □4 .......... □5  
b. I am as healthy as anybody I know ........ □1 .......... □2 .......... □3 .......... □4 .......... □5  
c. I expect my health to get worse................. □1 .......... □2 .......... □3 .......... □4 .......... □5  
d. My health is excellent ............................. □1 .......... □2 .......... □3 .......... □4 .......... □5  

THANK YOU FOR COMPLETING THESE QUESTIONS!
APPENDIX C

SOCIAL NEEDS CHECKLIST
Social Needs Checklist

Instructions: Please circle your answer.

Do you have any difficulties or problems with:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finances</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>2. Legal Issues</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>3. Laundry</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>4. Personal Stress (Worried, Sad, Frustrated, Angry)</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>5. Shopping</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>6. Housing (Needing repairs or a new place to live)</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>7. Taking or getting medications</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>8. Employment or Career Issues</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>9. Transportation</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>10. Having too much time alone</td>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
11. Medical Care at Home (For example, asking care of medical needs at home; needing or using prosthetics)

| None | Mild | Moderate | Severe |

12. Nutrition (Food preparation; following a special diet)

| None | Mild | Moderate | Severe |

13. Activities of Daily Living (Dressing, bathing, toileting, eating, walking, using telephone)

| None | Mild | Moderate | Severe |

14. Family Problems

| None | Mild | Moderate | Severe |

15. Grief (Death of a loved one)

| None | Mild | Moderate | Severe |

Social work services are not available as part of this research project. However, if social work services were available to you, would you want to be contacted by a social worker for assistance or information about services?

Yes ___   No ___

Thank you
APPENDIX D

CHECKLIST FOR VETERANS NOT RECEIVING HEALTH AT ANY VA FACILITY
Checklist  
Veterans Not Receiving Health Care at Any VA Facility

Name: ________________________________

Phone Number (optional): ____________  Age: _____  Race: ___________

Marital Status:  Single  Married  Divorced  Separated  Widowed

Income:  $0 - $15,000  
         $15,001 - $30,000  
         $30,001 - $45,000  
         $45,001 - $60,000  
         Above $60,000

Service Connection: ________ %  Not Service Connected

Combat History:  No military service during a time of war  
                 World War I (Combat)  
                 World War I Era (No Combat)  
                 World War II (Combat)  
                 World War II Era (No Combat)  
                 Korean War (Combat)  
                 Korean War Era (No Combat)  
                 Vietnam War (Combat)  
                 Vietnam War Era (No Combat)  
                 Gulf War (Combat)  
                 Gulf War Era (No Combat)

Medical Diagnoses:

- Cancer
- Diabetes
- High Blood Pressure
- Angina (Chest Pain)
- Heart Disease
- High Cholesterol
- Cataracts
- Inflammatory Bowel Disease/Diverticulitis

- Stroke
- Seizures
- COPD/Asthma
- Arthritis
- Hip Problems
- Low Back Pain
- Thyroid Disease

- Gout
- Hepatitis/Liver
- Urinary Tract Infection
- Gall Bladder Disease
- Ulcers
- Prostate

Other: (specify) ________________________________
Mental Health Diagnoses:

- Post-Traumatic Stress Disorder (PTSD)
- Depression
- Bipolar
- Anxiety (excluding PTSD)
- Schizophrenia
- Alcohol/Drug Abuse
- Other: ____________________________

How many prescription medications do you use? ______________________________

Approximately how many outpatient mental health visits have you had in the past 12 months?

- 0-2 visits
- 3-5 visits
- 6-8 visits
- 9-11 visits
- 12 or more visits

Approximately how many days have you spent in the hospital for medical or mental health reasons in the past 12 months?

- 0-1 day
- 2-3 days
- 4-5 days
- 6-7 days
- 8-9 days
- 10-11 days
- 12-14 days
- Between 14 and 30 days
- Between 31 and 45 days
- Between 46-90 days
- Over 90 days

THANK YOU!