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Phenomenological Study of the Lived Experiences of Appalachian Spouses of Combat Veterans
with Post Traumatic Stress Disorder

A dissertation
presented to
the faculty of the Department of Community and Behavioral Health
East Tennessee State University

In partial fulfilment
of the requirements for the degree
Doctor of Public Health

by
Janice E. Greene
May 2017

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Keywords: Post Traumatic Stress Disorder (PTSD), Combat, Spouse, and Appalachia

ABSTRACT

Phenomenological Study of the Lived Experiences of Appalachian Spouses of Combat Veterans
with Post Traumatic Stress Disorder

by

Janice E. Greene

This study was conducted to identify gaps in existing knowledge regarding impacts of combat-related PTSD on the spouse and to gain an understanding of the lived experience of Appalachian Spouses of combat veterans with PTSD. A systematic literature review was conducted to identify research and findings on the impacts of combat-related PTSD on spouses of veterans and a qualitative study was conducted to gain an understanding of the lives of Appalachian spouses of combat veterans with PTSD.

The systematic review identified 16 qualitative studies conducted between 1988 and 2016 in five countries spanning five wars. Regardless of the country of study or the war, the spouses experienced problems dealing with the symptoms of PTSD, emotional distress, impacts to relationships and caregiver burden. The systematic literature review revealed limited information on minority or underserved populations.

Qualitative interview data from ten Appalachian spouses of combat veterans with PTSD were examined to gain an understanding of their lives. Data were obtained from semi-structured interviews. Findings indicate Appalachian Vietnam veteran spouses experience similar problems dealing with the veteran's symptoms of PTSD, relationship problems, mental health problems

and caregiver burden. The veterans in this study were not diagnosed with PTSD until later in life so they spent the majority of their life without knowledge or treatment for the illness. The women in this study expressed concerns that government and society have marginalized Vietnam veterans.

This research highlights the need for outreach and PTSD education for Vietnam veterans and their spouses. Future research is recommended to expand the body of knowledge on the impacts of PTSD on the spouse with particular attention to other cultures, minority and underserved populations.

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DEDICATION

This research is dedicated to Vietnam veteran wives.

ACKNOWLEDGMENTS

I am using this opportunity to express my gratitude to all who have supported me throughout the course of my doctoral program. I am thankful for their guidance, invaluable constructive criticism and friendly advice. My deepest thanks go to my husband for his love, support, and unwavering belief in me.

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CHAPTER 1

INTRODUCTION

Post traumatic stress disorder (PTSD) is widely studied in the veteran population; however, there are limited studies focusing on the impact of combat-related PTSD on the life of the male veteran's spouse. Studies show that the male veteran's combat-related PTSD can have a negative impact on the spouse's life. Female spouses of veterans report emotional and psychological distress, less marital satisfaction, and higher levels of caregiver burden (U.S. Department of Veterans Affairs, 2016). A systematic literature review was conducted to identify gaps in the existing knowledge regarding impacts of combat-related PTSD on spouses.

The second phase of the study consisted of interviews with female spouses of Vietnam veterans with combat-related PTSD living in the South Central Appalachian counties of Northeast Tennessee, Southwest Virginia, and Western North Carolina. Data from the semi-structured interviews were analysed to gain an understanding of the lived experiences of these spouses. Information gained from this study was used to identify implications for research and practice.

Description of the Problem

PTSD is a mental health problem that may develop after experiencing or witnessing a life-threatening event, like combat, a natural disaster, a car accident, or sexual assault (U.S. Department of Veterans Affairs, 2016). The lifetime prevalence of PTSD in the adult American population is approximately 7% (U.S. Department of Veterans Affairs, 2016). Prevalence of PTSD in combat veterans is greater than that in the average adult population. PTSD prevalence in Vietnam veterans is nearly 31% and much higher than that of veterans from the Gulf Wars (10-12%) and Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) (13.8%) (U.S.

Department of Veterans Affairs, 2016). Individuals with PTSD experience symptoms such as nightmares, flashbacks, avoidance, anger, and hyperarousal. These individuals may also suffer from sleep disorders, stress disorder, substance abuse disorder, and depression (U.S. Department of Veterans Affairs, 2015). These symptoms present problems to the individual with PTSD and can also have negative effects on spouses (U.S. Department of Veterans Affairs, 2015). Spouses of veterans with PTSD report emotional and psychological distress, less marital satisfaction, and higher levels of caregiver burden (U.S. Department of Veterans Affairs, 2016). PTSD has been widely studied in the veteran population; however, there are far fewer studies that focus on the impact of PTSD on the spouse's life. A comprehensive review of the literature did not identify any studies that investigated the impacts of combat-related PTSD on female spouses in underserved populations such as those living in Appalachia.

Purpose of the Study

This purpose of the study is was (a) to identify gaps in the existing knowledge regarding impacts of combat-related PTSD on the spouse, (b) to gain an understanding of the lived experience of Appalachian spouses of Vietnam veterans with combat-related PTSD, and (c) to identify implications for research and practice. A systematic literature review was conducted to identify existing studies on the impacts of combat-related PTSD on female spouses of veterans. A qualitative study was conducted to gain an understanding of the lived experience of the Appalachian spouse of a Vietnam veteran with combat-related PTSD.

Research Questions

The research questions for the study were:

1. What gaps are there in the literature with regard to impacts of PTSD on the female spouse?

2. What is the lived experience of female Appalachian spouses of Vietnam veterans with combat-related PTSD?
3. What are the implications for research and practice?

Significance of the Study

This research is significant because it is the first to study PTSD in Appalachia, a region with a large veteran population, considerable health challenges and a distinct culture. Rural areas, such as Appalachia, typically have higher percentages of the population serving in the military than in urban areas and many veterans returning to these rural areas experience health care challenges due to geography, provider shortages and transportation issues (U.S. Department of Veterans Affairs, 2015). Additionally, many social and cultural beliefs held by Appalachians, such as distrust of outsiders and self-reliance may inhibit health-seeking behaviours (Coyne C.A., 2006).

A comprehensive search of published dissertations and scholarly articles revealed no studies related to the experiences of Appalachian spouses living with veterans with PTSD. A number of studies were found that explore the impact of PTSD on the veteran. A limited number of studies were found investigating the impact of PTSD on the spouse and only one study was found that explored the impact of PTSD on a minority population. It is important to investigate the experience of this vulnerable population to contribute to the current body of knowledge and to help inform culturally appropriate interventions.

Definition of Terms

The following definitions are provided to ensure uniformity and understanding of the terms used throughout the study. Definitions were obtained from appropriate authoritative references.

Appalachian Region a 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Virginia. (Appalachian Regional Commission, 2016).

Combat is defined as active fighting in a war (Merriam-Webster, 2016).

Post-Traumatic Stress Disorder is a mental health problem that some people develop after experiencing or witnessing a life-threatening event, like combat, a natural disaster, a car accident, or sexual assault (U.S. Department of Veterans Affairs, 2016).

Spouse the term “spouse” means the person of the opposite sex who is the legal wife or husband of the veteran (U.S. Government, 2011). For the purpose of this study “spouse” is defined as the legal wife of a male veteran or the female cohabiting partner of a male veteran where two people live together as if married, without legally being married (Legal Dictionary, 2016).

South Central Appalachia is a sub region of Appalachia composed of 85 counties in Tennessee, North Carolina and Virginia (Appalachian Regional Commission, 2016).

Veteran is an individual who received a discharge, excluding dishonourable discharge, following active military duty. This includes all military branches and activated reserves (U.S. Government, 2011).

Vietnam Era is the period beginning on February 28, 1961, and ending on May 7, 1975, in the case of a veteran who served in the Republic of Vietnam during that period. In all other cases *Vietnam Era* is the period beginning on August 5, 1964, and ending on May 7, 1975 (U.S. Government, 2011).

CHAPTER 2

LITERATURE REVIEW

Introduction to the Literature Review

This literature review describes PTSD, its symptoms, impacts to the veteran and society, and the veteran's experience with the Vietnam War. It explores the spouses experience with PTSD including impacts on the couple, mental health of the spouse and caregiver burden. The characteristics of Appalachia including the region, veteran population, culture and mental health are also presented.

Post Traumatic Stress Disorder

PTSD is a mental condition that may result after a traumatic event such as a natural disaster, sexual assault, terrorist act, combat or exposure to war. This disorder is characterized by four clusters described by the American Psychiatric Association in the fifth edition of its *Statistical Manual of Mental Disorders (DSM-5)* as: (a) persistent re-experiencing, such as recurrent thoughts, nightmares, and flashbacks; (b) persistent avoidance of trauma-associated stimuli; (c) negative thoughts or feelings that worsen after the trauma; and d) trauma-related arousal and reactivity (U.S. Department of Veterans Affairs, 2017). PTSD is associated with comorbid physical conditions including coronary heart disease, hypertension, hyperlipidaemia, diabetes and obesity (Department of Veterans Affairs, 2012; David, Woodward, Esquenazi, & Mellman, 2004). Individuals with PTSD may also suffer from other mental conditions including depression, anxiety, and substance abuse (Department of Veterans Affairs, 2012). Nearly 31% of all Vietnam veterans suffer from PTSD. This prevalence rate is much greater than the average occurrence of PTSD in the general population (U.S. Department of Veterans Affairs, 2016). Dealing with the symptoms of PTSD often impacts the veteran's employability resulting in a

reduction in workdays and lower earnings (RAND Center for Military Health Policy Research, 2008). Societal impacts of PTSD include costs of mental health treatment; lives lost to suicide, and reduced productivity. The Veteran Administration's fiscal year 2017 budget includes \$7.8 billion for treatment of mental health (U.S. Department of Veterans Affairs, 2016). The Congressional Budget Office estimates the average costs of PTSD treatment to be \$5,000 to \$8,000 per case per year (Congress of the United States Congressional Budget Office, 2012). Veterans suffer from the illness, their families suffer emotional and economic strain, and society bears a financial cost from the illness.

Vietnam War and the Veteran's Perspective

The U.S. government sent 2.7 million troops to Southeast Asia between 1964 and 1975 (U.S. Department of Veterans Affairs, 2015). The Vietnam War has unique characteristics that contribute to the psychology of these war veterans; Vietnam was a guerrilla war and the country's first lost war. Guerrilla warfare in Vietnam was characterized by ambushes of U.S. patrols, setting booby traps, landmines and planting bombs in town. The Vietnamese combatants mingled with the general population wearing ordinary clothes making it difficult for U.S. soldiers to identify the enemy (BBC-GCSE Bitesize, 2014). This type of warfare was dramatically different than that experienced during other wars where battle lines were drawn and the enemy was identifiable. Guerrilla warfare is outside the range of typical human experience and set the Vietnam veteran apart from others who had not experienced a similar situation (Brown, 1984). Vietnam soldiers differed from soldiers of other wars in that they were generally deployed as individuals rather than as a unit. Each soldier's tour was scheduled to last between 12-13 months. At the end of the tour, the soldier was sent home, alone, without the support of fellow soldiers. Soldiers in Vietnam did not have the benefit of formally transitioning from the

battlefront to the home front. It was not uncommon for soldiers to go from the jungles of Vietnam to their parent's homes in the span of 72 hours. These homecomings were not the celebratory events of today's Iraq and Afghanistan service members. Vietnam soldiers were required to return to the U.S. in uniform and reported returning home via commercial carriers to metropolitan airports. Soldiers were met with hostility, catcalls of "baby killer", and endured such insults as being spit upon (Clapper, 2016). Due to the politics and outcome of the war, Vietnam veterans were generally not acknowledged with respect or pride upon return from duty (Brown, 1984). These factors influence the manner in which Vietnam veterans view themselves and their approach to life (Brown, 1984).

Spouses' Experience

Spouses of veterans with PTSD report: less marital satisfaction, more emotional and psychological distress and increased caregiver burden (U.S. Department of Veterans Affairs, 2016). PTSD has been widely studied in the veteran population; however, there are far fewer studies that focus on the impact of PTSD on the spouse's life. The following sections explore quantitative studies of impacts to the spouse from combat-related PTSD and describe the type and magnitude of the impact. When available, data on Vietnam veterans is presented first followed by information on other U.S. Veterans from other wars and then information from foreign wars are presented. Results of the systematic literature review described in Chapter 4 put meaning to these impacts.

Couple Impacts

Marital Satisfaction. PTSD can have a negative effect on marital adjustment and satisfaction (U.S. Department of Veterans Affairs, 2016). Case-control studies of Vietnam veteran spouses with combat-related PTSD and spouses of veterans without PTSD indicate that

Vietnam veteran spouses have more marital problems, more negative emotions, and more severe psychiatric symptoms than spouses of veterans without PTSD (Carroll, et al., 1985; Jordan & Marmar, 1992; Mikulincer, 1995). Riggs, Byrne, Weathers, and Litz (1998) found similar relationship difficulties in couples where the male Vietnam veteran had PTSD. This study also found that PTSD couples had taken more steps toward separation and divorce than the non-PTSD couples. U.S. Vietnam combat veterans with PTSD and spouses reported significantly more problems with self-disclosure and expressiveness to their spouses, more physical aggression toward their spouses and difficulties with relationship adjustment than those U.S. Vietnam combat veterans without PTSD (Carroll, Rueger, & Donahoe, 1985). Dekel, Solomon, and Bleich (2005) found similar levels of emotional distress and levels of marital satisfaction in Israeli couples where the veteran had combat-related PTSD when compared to the general population.

Levels of PTSD. MacDonnell et al., (2014), measured the levels of PTSD symptoms in Australian Vietnam combat veterans and levels of caregiving distress, dyadic adjustment, mental health and life satisfaction in their spouse. The level of PTSD in the veteran was associated with more problems with marital adjustment, increased mental health problems and a decrease in life satisfaction in their spouses. Overall, greater levels of PTSD symptoms in the veteran were associated with higher levels of distress in their spouses (MacDonnell, Thorsteinsson, Bhullar, & Hine, 2014).

Sexual Dysfunction. Several studies have been conducted on levels of sexual dysfunction in combat veterans. These studies indicate that combat veterans with PTSD experience higher levels of sexual dysfunction than combat veterans without PTSD (Cosgrove, Gordon, Bernie, Hami, & Montoya). A study of wives of Israeli veterans with PTSD indicated that diminished

sexual interests contributed to decreased couple satisfaction and lack of adjustment (Solomon & Avitzur, 1991).

Partner Mental Health

Mental and Emotional Health. PTSD can affect the mental and emotional health of a veteran's spouse (U.S. Department of Veterans Affairs, 2016). Calhoun, Beckham, and Bosworth (2002) found spouses of Vietnam combat veterans with PTSD had higher levels of emotional distress than the general population (Calhoun et.al. 2002). Westerlink and Giarratano (1999) conducted a study to explore the emotional health of a group of families of Australian Vietnam veterans with PTSD and found spouses were significantly more psychologically distressed than a control group. These distress symptoms included somatic symptoms, anxiety, insomnia, social dysfunction, depression and low self-esteem (Westerlink & Giarratano, 1999). Other studies of U.S. combat veterans with PTSD indicated higher levels of overall psychological distress, depression and suicidal ideation in spouses (Manguno-Mire et al. , 2007).

Depression, social maladjustment, and other negative internal symptomatic behaviours were reported at higher levels in a study of Iraq-Iran war veteran spouses when compared to a control group (Alessi, Ray, Ray, & Stewart, 2001). Dekel et al. (2005) found that Israeli veteran spouses with PTSD have higher levels of emotional distress than the general population.

Studies of Serbo-Croatian families where the veteran had PTSD indicated that wives from the PTSD group experienced more depression when compared to the control group (Zalhic, Zalhic, & Pivic, 2008). Peraica, Vidovic, Petrovic, and Kozaric-Kovacic (2014) examined the quality of life of spouses of Croatian combat veterans with PTSD. The results indicate the veteran's PTSD has an overall negative impact on the spouse's quality of life. Another study by Zdjelarevic (2011) examined the quality of life of families of Croatian veterans. Three

populations were studied, spouses of war veterans with PTSD, wives who had lost a husband in the war, and wives of veterans with physical disabilities due to war. The results were startling in that the lowest quality of life was discovered in wives of veterans suffering from PTSD. This is notable in that wives who had lost their husbands due to the war had a higher quality of life than those wives whose husbands suffered from PTSD (Zdjelarevic et al., 2011).

Secondary Traumatic Stress. Secondary traumatic stress (STS) is a mental health condition that occurs when those who are in close contact with trauma survivors experience similar behaviours and distress as the individual who was traumatized (Bride, Robinson, & Figley, 2004). Several studies determined that spouses of OIF/OEF combat soldiers with PTSD are at risk for developing STS (Goff, Crow, Reisbig, & Hamilton, 2009; Herzog, Everson, & Whitworth, 2011). A study by Klaric et al. (2012) found that spouses of Israeli PTSD diagnosed war veterans had higher rates of secondary trauma than spouses of war veterans without PTSD. Studies have found that the more severe the veteran's symptoms of PTSD, the more severe the STS symptoms in the spouse (Bjornestad, Schweinel, & Elhai, 2014). Also, the length of time the veteran experiences PTSD is related to the severity of STS in the spouse (Ahmadi, Azampoor-Afshar, Karami, & Mokhtari, 2011).

Caregiver Burden

Caregiver burden is a construct to describe the difficulties associated with caring for someone with a chronic illness like PTSD (Price & Stevens, 2016). Challenges associated with caregiver burden include more responsibility for household tasks, responsibility for maintaining marital and family relationships, along with caregiving responsibilities (Price & Stevens, 2016). It is not surprising that this weight of responsibility results in increased levels of stress, anxiety and depression, low self-esteem, loneliness, confusion, and loss of control among caregivers

(Dekel, Goldblatt, Keidar, Solomon, & Polliack, 2005).

The psychological, physical, financial and social factors that make up caregiver burden can be made worse by a number of factors and mitigated by others. Caregiver burden tends to be worse when the individuals involved are socially isolated; they lack caregiver knowledge, and when they took no respite from caregiver responsibilities (Reinhard, Given, Petlick, & Bemis, 2008).

Several studies have found that spouses of Vietnam veterans with combat-related PTSD perceive higher levels of caregiver burden than spouses of veterans without PTSD (Calhoun et al., 2002; Beckham, Lytle, & Feldman, 1996). The severity of the veteran's PTSD is associated with greater caregiver burden (Beckham, et al., 1996; Calhoun et al., 2002). The severity of PTSD in the veteran was also reported to contribute to overall psychological distress and psychological adjustment in the caregiver (Beckham et al., 1996; Calhoun et al., 2002).

Wives of veterans diagnosed with PTSD also experience significantly higher caregiver burden and more burnout than wives of veterans without PTSD. Study results indicate that living with a veteran diagnosed with PTSD places a heavy burden on the spouse and poses a serious risk of burnout (Klaric et al., 2010).

Appalachia

Region, Economy, and Social Determinants of Health

The Appalachian region of the United States includes 420 counties in 13 states that extend along the spine of the Appalachian Mountains from southern New York to north eastern Mississippi. The area is home to more than 25 million people and is described an area that “does not enjoy the same economic vitality as the rest of the nation. Central Appalachia in particular still battles economic distress, with concentrated areas of high poverty, unemployment, poor health and

severe educational disparities” (Appalachian Regional Commission, 2016, “Appalachia’s Economy”, par. 2). The number of high-poverty counties in the region has declined since 1960, but remains at more than one and half times the U.S. average. (Appalachian Regional Commission, 2016).

Poverty and the percentage of people without health insurance are leading social determinants of health in Appalachia. Other factors include, lack of availability of local medical resources and poor local health behaviours (West Virginia Center for Excellence in Disabilities, n.d.). Moreover, much of this region’s population lives in rural areas, 42%, as compared with 20% of the nation’s population (Appalachian Regional Commission, 2016). Rural residents are more likely to experience poverty, have limited health care provider options, and have barriers to health care such as transportation (Rural Health Information Hub, 2015).

Appalachian Veteran Population

Much of Appalachia is rural and these rural areas are home to a disproportionate number of veterans. Of the 22 million veterans living today, about 5.3 million (24%) live in rural communities (U.S. Department of Veterans Affairs, 2015). Rural veterans are faced with unique barriers such as provider and specialist shortages, hospital closings, lack of broadband coverage (for telehealth), geographic barriers and distance. Rural veterans also face challenges with access to health care services and wellness promotion efforts, education, employment and transportation (U.S. Department of Veterans Affairs, 2015).

Appalachian Culture and Mental Health

The Appalachian culture is described as one of independence, loyalty to family, self-reliant, religious, and minding one’s own business (West Virginia Center for Excellence in Disabilities, n.d.). Some cultural values may put Appalachians at risk for poor health, while

other cultural values may be protective. Values such as independence, self-reliance and fatalism may inhibit Appalachians from seeking health care while values such as strong social ties and religious affiliation foster good health (Coyne C.A., 2006). Access to mental health care carries an added stigma and seeking mental health care is counter to the Appalachian values of independence and self-reliance (Hoge et al., 2004).

Rural women experience mental disorders at equal or greater rates than their urban counterparts yet there are fewer mental health providers in rural areas such as Appalachia (Hill & Cantrell, 2016). In a study comparing cultural differences in seeking mental health counselling, Gore, Sheppard, Waters, Jackson and Brubaker (2016) found that Appalachians wait longer to seek mental health counselling than non-Appalachians. Cultural factors such as distrust of outsiders, religion and independence may inhibit mental health seeking behaviour (Hill & Cantrell, 2016; Snell-Rood et al., 2016). Hill, Cantrell, Edwards and Dalton (2016) studied patients and providers in a primary care clinic located in South Central Appalachia and found barriers to mental health seeking behaviour that included stigma, lack of support, and lack of education. Facilitators to mental health seeking behaviour included integrated care and positive experiences with providers.

Understanding Appalachian cultural values is an important factor in mental health treatment (Russ, Working with People of Appalachian Culture (PowerPoint Slides), 2012). Distrust of outsiders, religiosity, and independence has been found to influence Appalachian mental health seeking behaviour (Hill & Cantrell, 2016). Several authors, including Russ (2010) and Lemon, Newfield, and Dobbins (1993) have suggested implementing culturally sensitive guidelines for counselling people of Appalachian culture.

Among Appalachian cultural values, distrust of outsiders can challenge the success of

mental health therapies. Russ (2010) indicates that trust can be built over time in an Appalachian client-provider environment. Providers must consistently demonstrate integrity and respect to gain the trust of an Appalachian client. Once this trust is gained, the Appalachian client rarely breaks it.

Residents of Appalachia place a high value on family and tend to live close to other family members (Shamblin, Williams, & Bellaw, 2012). Appalachian family groups are extensive and often include distant kinships. These strong family ties can provide support to individuals with mental health conditions. Mental health practitioners can take advantage of the strength of kinship ties by engaging family support in therapies (Lemon et al., 1993; Russ, Working with People of Appalachian Culture (PowerPoint Slides), 2012).

Independence and self-reliance are strong cultural components of Appalachians (Russ, Working with People of Appalachian Culture (PowerPoint Slides), 2012). Appalachians are reluctant to ask for help, regardless of the need because self-reliance is valued. Seeking help may be viewed as a weakness or failure (Russ, Working with People of Appalachian Culture (PowerPoint Slides), 2012). Snell-Rood et al. (2016) found that Appalachian women who were depressed resisted seeking help due to the expectation of self-reliance in the culture.

The role of religion and spirituality in the Appalachian culture must also be considered. Appalachians tend to place a great value in faith and God (Coyne, 2006; Diddle, 2010). Religion and faith permeate the lives of many Appalachians and this religiosity is not necessarily related to church attendance (Diddle, 2010). This religious worldview often extends to those Appalachians without specific church ties or religious beliefs (Russ, Working with Clients of Appalachian Culture, 2010). Appalachians may believe that illness is the direct will of God and that what happens is not under their control, but is God's will (Diddle, 2010). When dealing with mental health problems, Appalachians often rely on support from their faith and wait for

God's will or their prayers to be answered (Diddle, 2010). It is noteworthy that when Appalachians need help, they first look to family and then to their local church (Russ, Working with Clients of Appalachian Culture, 2010).

Appalachians value independence, taking care of themselves, and religion. These cultural values may delay getting care for mental health problems (Diddle, 2010). Mental health practitioners can improve relationships and the success of interventions by becoming familiar with cultural values and leveraging them in treatment (Russ, Working with People of Appalachian Culture (PowerPoint Slides), 2012).

Summary of Literature Review

PTSD affects combat veterans at higher rates than the general population. Those individuals suffering from PTSD deal with mental health issues, comorbid physical conditions and a reduction in the quality of life. The unique nature of the Vietnam War and society's treatment of these veterans plays a part in their overall post-war adjustment. PTSD affects the marital relationship, the mental health of spouses and results in additional caregiver burden to the spouse. Rural regions such as Appalachia are home to a disproportionate number of veterans and have greater health care challenges. Women in rural regions suffer mental disorders at rates greater than their urban counterparts and may be less likely to seek treatment due to cultural values and health provider availability. PTSD places a heavy burden on the spouse and living in an underserved region, such as Appalachia, introduces additional challenges in accessing mental health care.

CHAPTER 3

METHODS

Introduction to Methods

This study has two primary aims. The first aim is to identify the gaps in the existing knowledge regarding impacts of combat-related PTSD on the spouse. The objectives of this portion of the study were accomplished by conducting a systematic literature review. The second aim was to gain an understanding of the lived experience of Appalachian spouses of Vietnam veterans with combat-related PTSD. This study aim was accomplished by conducting a qualitative study consisting of individual interviews with the target population. Information gained from this study will contribute to the body of knowledge on this topic, help inform culturally appropriate interventions and stimulate further research on this topic.

Specific Aims

Specific Aim 1: To identify gaps in the existing knowledge regarding effects of combat-related PTSD on the veteran spouse.

- Objective 1A: Conduct a systematic literature review on the effects of combat-related PTSD on the veteran spouse.
- Objective 1B: Determine inclusion criteria, review articles, and summarize the literature on combat-related PTSD effects on the spouse.

Specific Aim 2: Gain an understanding of the lived experiences of Appalachian spouses of Vietnam veterans with combat-related PTSD.

- Objective 1A: Develop questions, conduct interviews, and perform a thematic analysis of the interviews.
- Objective 2A: Identify implications for practice and research.

Specific Aim 1: Systematic Literature Review Research Design

A systematic literature review was conducted to identify gaps in the existing literature regarding effects of combat-related PTSD on the veteran spouse. The preferred reporting items for systematic review and meta-analysis protocols (PRISMA) guided the process (Moher et al., 2015). The process steps included: 1) development of a review question; 2) development of inclusion and exclusion criteria; 3) searching for studies; 4) screening and selecting studies; and 5) analysing studies.

Development of a Review Question and Inclusion Criteria

The specific review question was: “What are the experiences of spouses living with veterans with combat-related PTSD?” Studies were included if they (a) were research studies that explored the experience of a spouse living with a veteran with combat-related PTSD and (b) publications that were in the English language. Due to the scarcity of research on this topic, there was no exclusion date beyond that of the period of coverage of the database and no war or country was excluded. The assistance of a professional librarian was used to conduct the search. In addition to the database search, pertinent documents were selected for manual reviews of the references for related articles.

Searching for Studies

Databases searched include Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Central, Published International Literature on Traumatic Stress (PILOTS), PsychInfo, PubMed, Sociological Abstracts, and Web of Science. Search terms included “veterans”, “combat veteran”, “war veteran”, “military personnel”, “posttraumatic stress disorder”, “post traumatic stress disorder”, “post-traumatic stress disorder”, PTSD”, “husbands”, “spouses”, “female partner”, “partner”, “spouse”, and “wife”. A comprehensive list of the search terms is provided in Appendix A.

Identification, Screening and Selecting

The systematic review was conducted between March 2016 and February 2017. A total of 1776 records were identified using the search terms provided in Appendix B. Three additional records were discovered through review of the bibliography of pertinent articles. Articles were managed in the reference management software, EndNote. The records were screened and as a first step, duplicate records and obvious miss-matches were eliminated. This reduced the number of potential records to 350. Further screening was conducted by scanning the abstracts of these articles. This screening step excluded 228 articles for a total of 122 full-text articles remaining to be assessed for eligibility. Scanning and reading the full text articles eliminated 106 articles for a total of 16 qualitative articles to be included in the systematic review. Figure 1 presents the systematic review process.

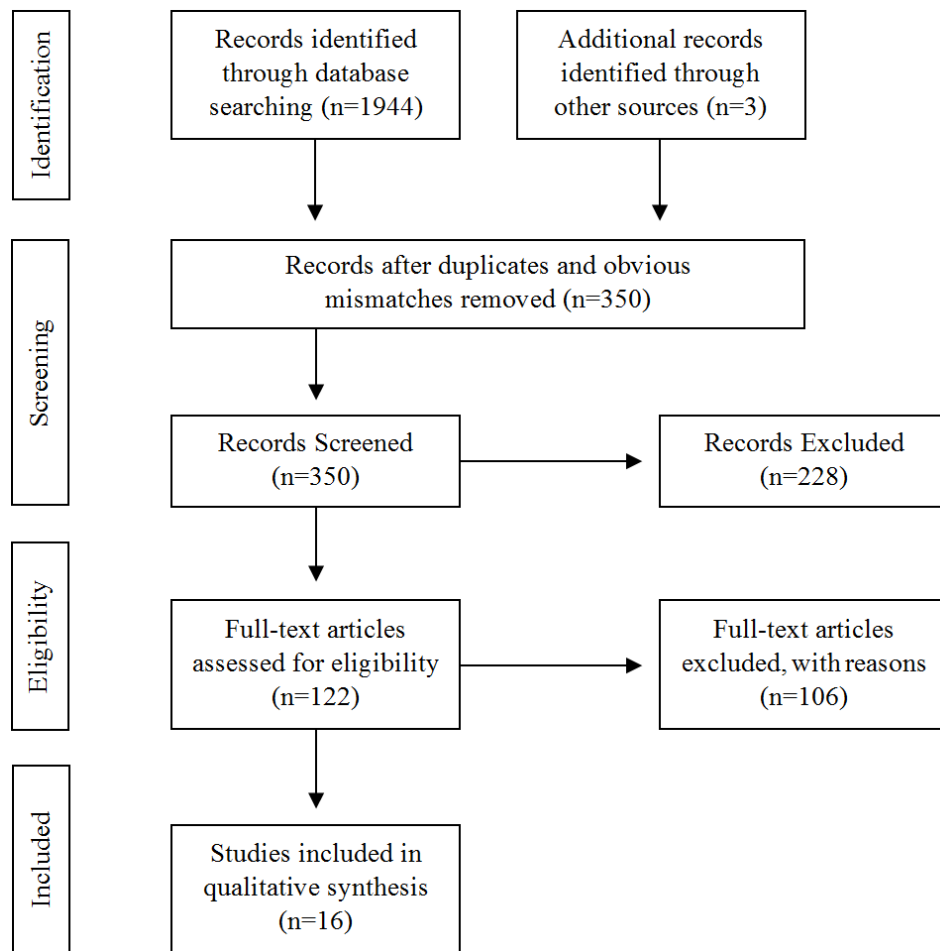


Figure 1. Systematic Review Flow Diagram

Analysis

The studies were initially organized according to author, year, title, war, sample size, aim, design and major themes. A narrative analysis was conducted to summarize the experiences of living with a veteran with combat-related PTSD.

Specific Aim 2: Qualitative Research Design

This research was conducted using the qualitative method and a phenomenological strategy as presented by Shosha (2012). A phenomenological investigation is designed to explore and understand people's everyday lived experiences (Shosha, 2012). A small sample

size has been shown effective in gaining a rich description of these experiences (Marshall, 1996). There is no single formula for determining sample size in qualitative studies (Marshall, 1996). In practice, the number of needed samples usually becomes apparent as the study progresses and new themes cease to emerge (Marshall, 1996). Semi-structured interviews were used to gain information on the lived experience of the spouse. This methodology is appropriate to provide insight and understanding of complex psychosocial issues (Marshall, 1996).

Target Population and Recruitment

The study target population included female spouses of South Central Appalachian Vietnam veterans with combat-related PTSD. A purposeful sampling strategy was used to identify and select participants for inclusion in the study. Purposeful sampling is used in qualitative research to identify and select information-rich participants and is an effective use of resources (Palinkas et al., 2013). Female Appalachian veteran spouses who have specific knowledge and personal experience with living with combat-related PTSD were selected for the study. There is no specific formula for determining the number of participants in a qualitative study. However, Byrne (2001) suggests reviewing sample sizes of similar studies and considering the constraints of time and budget. A review of seven similar studies, Blalock (2010), Bowling (2015), Edem-Iniedu, (2010), McClean (2006), Reeve (2010), Williamson (2012), and Woods (2010) indicate sample sizes from four to ten.

Recruitment was conducted by sending a campus-wide e-mail from a university in Appalachia soliciting volunteers for the study. The e-mail is provided in Appendix B. Potential participants contacted the researcher via e-mail or phone. A response script is provided in Appendix C. Upon contact, the researcher provided more information on the study, screened the participants according to the inclusion criteria and answered any questions. If the individual

remained interested in participating, she was enrolled as a participant. A total of ten participants were enrolled in the study.

Data Collection

Demographic information was collected at the beginning of the interview. Questions were designed to gather information on county and state of residence, length of residence, age, race, education, current occupation and number of years married or cohabited. Demographic questions are provided in Appendix D. Seven semi-structured interview questions were developed for this study. The interview questions were developed by reviewing questions from similar studies, aligning questions with the study aim, and gaining input from a faculty advisor experienced in qualitative research in Appalachia. The open-ended questions were designed to gather information on the lived experience of the Veteran spouses, their feelings, their coping and support mechanisms and needs, and recommendations. Provided below is the list of questions.

1. Tell me about your experiences living with a husband with PTSD.
2. How does this make you feel?
3. What things do you do to help cope with your husband's PTSD?
4. Do you wish you had any other supports to help you cope with your husband's PTSD?
5. Let's pretend for a moment that you could talk a wife of a recent war veteran whose husband has PTSD. What would you want to tell the wife?
6. If you were given one minute to speak to someone of influence (like a room full of healthcare providers) about your experiences as a spouse of a Vietnam Vet with PTSD, what would you want them to know?
7. Is there anything else you would like to add to this interview?

The questions were used flexibly and were adapted, omitted or elaborated according to

the individual context. Questions were developed by reviewing interview questions from similar studies to develop an initial list then this list was reviewed with an experienced qualitative researcher for further refinement. The semi-structured questions were used to promote a conversational dialogue to explore the lived experience. The interview script is provided in Appendix E and the questions are provided in Appendix F.

The interviews were conducted in a comfortable setting where privacy and safety were assured. Interview locations included private offices on the campus of a university in Appalachia or private study rooms at the university library. One interview was conducted in a private meeting room at a local city library. The researcher reviewed the purpose of the study with the participant and asked them to complete two copies of the informed consent document. The participant retained a copy of the ICD and the researcher retained a signed copy for the study file. The participant completed a short demographic questionnaire prior to beginning the interview. The semi-structured interviews lasted from 60 to 90 minutes and were audio recorded.

Instrument (Role of Researcher)

The phenomenological approach assumes that the researcher is engaged in the research process and understands their perspective or worldview may shape the findings (Ulin, Robinson, & Tolley, *Qualitative Methods in Public Health*, 2005). It is recommended that researchers identify their worldview and perspectives on the phenomenon as part of engaging in the study and make a conscious effort to minimize any premature judgment, professional knowledge, and personal experiences (Dekel et al., 2005). I followed the recommendations of Moustakas (1994) and Shosha (2012) to bracket or define one's personal perspectives by identifying personal biases, assumptions and presuppositions. Once these perspectives were identified, I set them aside in an effort to keep the research objective in nature. My bracketed experiences are

provided in the following paragraphs.

Being the spouse of an Appalachian Vietnam veteran with combat PTSD shapes my perspectives and worldview. I have lived in Appalachia all my life, including the Appalachian areas of Southern Ohio, central Kentucky and Northeast Tennessee. I am a fifty-two year old female doctoral student working full time in environmental protection. I am a new researcher with limited training in qualitative methodology. I have participated in a few qualitative and quantitative research studies at undergraduate and graduate levels. However, my research experience overall is limited. I received a Bachelor of Science in Geology from Morehead State University in Morehead, Kentucky, and a Master of Science in Environmental Health at East Tennessee State University in Johnson City, Tennessee. I am currently a doctoral candidate in the department of Community and Behavioral Health in the College of Public Health for the degree of Doctor of Public Health at East Tennessee State University, Johnson City, TN.

With this background in consideration, as a measurement tool I provided a range of strengths and weaknesses. Strengths include: a sincere personal interest in this subject; a personal history of living with a spouse who has combat-related PTSD; familiarity with the Appalachian culture; and experience in conducting qualitative interviews, coding, and analysing qualitative data. As a measurement tool, the weaknesses include a limited amount of experience in conducting and analysing qualitative data and the dual role of being the researcher and the analyst.

My experiences may provide some overall benefit to the narrative interpretation; however, I recognize that the information gained from the study passed through the lens of my experiences and knowledge on the subject. At the beginning of the in-depth interview, I explained my background as a doctoral student who is studying spouses of Vietnam veterans with combat-related PTSD to gain a better understanding of their lives. I explained that I have a

vested interest in the research because I am the spouse of such a veteran. During the interview and data analysis process, I strived to remain objective about the study results to ensure the findings were well linked to the data. Due to my standing as an Appalachian Veteran spouse, there was likely some subjectivity, as my judgment is shaped by my own experiences and feelings. This is inherent with qualitative research since the researcher becomes the instrument; however, by following the study design, procedures and protocol, and incorporating participant review, the study findings are well supported by the interview data.

Data Analysis

A hybrid method of inductive and deductive thematic analysis was used to interpret the interview data (Fereday, 2006). This hybrid method integrates the use of codes derived from the systematic literature review with those uncovered from the patterns in the interview data (Fereday, 2006). First, common themes from the systematic literature review were identified. Then, a thematic analysis was conducted on the interview transcripts. Themes from the systematic literature review were compared to themes derived from the collected data set to identify similarities and emergent themes.

The thematic analysis was conducted according to Braun and Clark's (2006) six step approach.

Familiarization – This step involved reading and re-reading the transcripts. Initial ideas were noted in the margins of the transcript. Similarities with themes identified during the systematic literature review were also noted in the margins.

1. Generating initial codes –Initial codes for each transcript were identified. Then similar codes were identified across all transcripts.
2. Searching for themes – Codes were sorted into a potential themes.

3. Reviewing themes – Themes were reviewed to ensure they were supported by data extracts and the entire data set.
4. Defining and naming themes – Themes were reviewed to develop a clear definition and name. Themes were analysed to produce the overall story of the data.
5. Producing the report – This step involves the final analysis of the data. Vivid, compelling, supportive data extracts were selected, relating back to the research question and literature.

Ethical Considerations

The study was approved by the East Tennessee State University's (ETSU) Institutional Review Board (IRB). The researcher followed the approved research protocol and maintained the highest degree of ethical standards during the data collection process. Participants were assured of the study confidentiality and were given the opportunity ask questions at any point during the study. Participation in the study was voluntary and participants were provided an informed consent document (ICD) for their review and approval (Appendix G).

The researcher maintained control of participant information to guard against unauthorized use. Study information was only accessible to the researcher, faculty advisors and the institutional review board. E-mail communications with participants were by password-protected address. The researcher maintained control of the audiotapes during the study to preserve privacy. Audiotapes were transmitted to a professional service for transcription via a password-protected account. ICDs are required to be maintained for a period of six years after which they will be permanently destroyed. Any other electronic files or documents not required for the permanent record will be permanently destroyed upon conclusion of the study.

This research was not expected to cause harm or discomfort any greater than that

encountered during daily living and therefore did not present more than minimal risk.

Participants were offered a resource guide that included hotline numbers for domestic violence, mental health and caregiver support (Appendix H). Upon conclusion of the interview, participants received a \$40 honorarium.

Trustworthiness

The matter of trustworthiness in qualitative research is often questioned because the concepts of validity and reliability cannot be addressed in the same manner as they are in quantitative research (Shenton, 2004). Four criteria have been proposed for consideration in demonstrating trustworthiness in qualitative research. These include credibility, transferability, dependability, and confirmability (Shenton, 2004). A number of strategies are proposed by Shenton (2004) to demonstrate that this research is academically sound.

To demonstrate credibility, the researcher used established research methods, had a familiarity with the culture of the participants, created an interview environment to promote openness and honesty of participants, provided a description of the background, qualifications, and experience of the researcher, gained feedback from participants on the findings and examined other research to frame the findings. To demonstrate transferability, the researcher provided sufficient background data to establish the context of the study and provided a detailed description of the phenomenon so that comparisons can be made. To address dependability, the researcher provided a detailed methodological description so that the study could be repeated. With regard to confirmability, the researcher documented the process of bracketing her own beliefs and assumptions, provided a detailed description of the methods so that the research results can be scrutinized and created an audit trail so that the research can be followed step-by-step (Shenton, 2004).

CHAPTER 4

RESULTS

Systematic Literature Review

Sixteen studies were identified for inclusion in the systematic literature review. Characteristics of these studies along with a narrative summary are provided in the following sections.

Study Characteristics

A total of 16 articles were included in the systematic review. The date range of the studies was from 1988 to 2016 and included five wars (Iranian, Israeli, Gulf, OIF/OEF, and Vietnam). The studies included in this review were conducted in five countries, Australia, Iran, Israel, New Zealand, and the United States. The studies varied in methodological approach. Data collection methods included 13 studies using individual interviews, one study using a focus group, one study using data collected from Internet discussion forums and one study analysing data from a survey question. Sample size of the individual interviews ranged from a minimum of 4 to a maximum of 20 with an average sample size of 11. A description of the studies and findings are provided in Table 1.

Table 1

Summary of Systematic Review Studies, Characteristics and Findings

Author/Year	War	Country	Method	Sample Size	Findings
(Beks, 2016)	Various	Unknown	Internet Discussion	30	Focus is on veteran's illness, and the resulting isolation, grief and apprehension of spouses as they assume primary caregiving roles.
(Bowling, 2015)	Gulf	USA	Individual Interview	10	African American spouses experience challenges including compassion fatigue, burnout and reduced resilience as it relates to caregiver responsibility. These women experience behavioral symptoms including irritability, hypervigilance, and isolation along with somatic symptoms. They also experience isolation and impacts to the marital relationship.
(Dekel, Goldblatt, Keidar, Solomon, & Polliack, 2005)	Israeli	Israel	Focus Group	9	Lives of women revolve around their husband's illness. The wives faced constant tension and struggled to maintain their independence. Wives identified positive aspects of the marital relationship that helped them cope.
(Edem Iniedu, 2011)	OIF/OEF	USA	Individual Interview	10	Wives experienced marital distress, impacts on families and lifestyle. The women reported taking on more household responsibilities and making sacrifices in their lives to manage the illness. Wives express a commitment to stay in the marriage due to religious beliefs, love and commitment.
(Frederikson, Chamberlain, & Long, 1996)	Vietnam	New Zealand	Individual Interview	5	Vietnam veteran's wives experience problems of marital and family adjustment, poor parenting skills, and veteran violent behaviour.

Table 1 (continued)

Author/Year	War	Country	Method	Sample Size	Findings
(Kimhi & Doron, 2013)	Israeli	Israel	Individual Interview	20	Wives did not know what the problem with their husband was and did not connect it to military service. Veteran's illness had a negative effect on normal family functioning and the marital relationship. Wives suffered from anxieties and STS.
(Lyons, 1999)	Vietnam	USA	Individual Interview	10	Wives report dealing with symptoms of spouse's PTSD, substance abuse, and physical/emotional abuse and reported some coping techniques. Overall wives become dominated by the veteran's illness.
(Maloney, 1988)	Vietnam	USA	Individual Interview	6	Wives experience emotional stress, physical and psychological abuse, and deal with substance abuse of spouse. They expressed dissatisfaction for society's treatment of the returning service member.
(Mansfield, Schaper, Yanagida, & Rosen, 2014)	Various	USA	Individual Interview	252	PTSD impacts both spouses and families. Identified need to provide mental health services to spouses of veterans with PTSD.
(McCormack, Hagger, & Joeseeph, 2011)	Vietnam	Australia	Individual Interview	4	Women described feelings of fear, self-doubt, anxiety, guilt, anger and helplessness in dealing with their husband's PTSD. The women describe how they manage their distress by finding meaning in their experiences.
(Reeve, 2010)	Various	USA	Individual Interview	8	Spouses experienced challenges with communication, violence, avoidance and substance abuse. They expressed feelings of frustration and expressed challenges with support systems, health care and medications.

Table 1 (continued)

Author/Year	War	Country	Method	Sample Size	Findings
(Vagharseyyedin, 2015)	Iranian	Iran	Individual Interview	14	Spouse's reported limited social interactions and an increase in household responsibilities. Despite the challenges their husband's illness presented, these women wanted to stay in the relationship and maintain the family. Participants sought to be treated respectfully by society, wanted more social support and expected assistance from responsible organizations.
(Waddell, Pulvirenti, & Lawn, 2015)	Vietnam	Australia	Individual Interview	20	Lack of understanding of the veteran wives, particularly by health providers and government, has resulted in a sense of social disconnect and invisibility that contributes to stress and is a barrier to coping.
(Williamson, 2012)	OIF/OEF	USA	Individual Interview	10	Spouses experienced problems dealing with the spouse's psychological symptoms and impacts to their lives including isolation.
(Woods, 2010)	OIF/OEF	USA	Individual Interview	10	Spouses deal with soldier's PTSD symptoms including anger, emotional distance, sleep disturbances and domestic violence.
(Yambo T., Johnson, Delaney, Hamilton, Miller, & York, 2016)	Various	USA	Individual Interview	14	Military spouses endure psychological stress and strain while living with a veteran with PTSD. There is a need for more programs to support military spouses.

Spouses Lived Experience

The 16 studies produced similar themes describing the lives of the spouses as being defined by the veteran's PTSD (Dekel et al., 2005; Edem-Iniedu, 2011; Lyons, 1999; Beks, 2016; Waddell, Pulvirenti, & Lawn, 2015). The spouses reported dealing with their veteran's psychological symptoms of PTSD including anger, substance abuse, violence, and sleep disturbances (Lyons, 1999; Maloney, 1988; Reeve, 2010; Williamson, 2012; Woods, 2010). The studies describe the women's experiences with angry outbursts, aggressive behaviour, and anger as daily occurrences in the household. The women reported living in an environment where they attempted to control potential triggers to maintain calm and order in their lives (Beks, 2016; Frederikson, Chamberlain, & Long, 1996; Yambo, Johnson, Delaney, Hamilton, Miller, & York, 2016; Waddell et al., 2015). The emotional outbursts and anger resulted in tension, fear, and stress on the part of the spouse (Dekel et al., 2005; Maloney, 1988; McCormack, Hagger, & Joeseeph, 2011).

Impacts to relationships were also a common theme. These impacts include the marital relationship, parenting, and other social relationships (Bowling, 2015; Edem-Iniedu, 2011; Frederikson et al., 1996; Kimhi & Doron, 2013; Mansfield, Schaper, Yanagida, & Rosen, 2014). The wives suffered a sense of loss of the pre-PTSD personality and relationship (Beks, 2016). The women reported emotional withdrawal, loneliness and impacts with spousal communication (Beks, 2016; Williamson, 2012). These actions by the veteran created a sense of the veteran being "present-absent" in the relationship (Kimhi & Doron, 2013; Frederikson et al., 1996). The spouse often reported an increase in household and caretaking responsibilities (Beks, 2016; Bowling, 2015; Edem-Iniedu, 2011; Lyons, 1999; Vagharseyyedin, 2015).

Spouses reported challenges with the governmental agencies charged with veteran care

(Reeve, 2010). Spouses took on the role of advocate and protector for their veteran (Frederikson et al., 1996; Maloney, 1988; Vagharseyyedin, 2015; Waddell et al., 2015). They were persistent in supporting their veteran as they navigated the complex systems for care (Waddell et al., 2015).

Much of the focus of care was on the veteran. Although the spouses experienced additional caregiver burden, emotional, and mental stress, they were not considered to play an important role in the veterans care and the impacts to their lives were not much considered. Generally, spouses did not feel like they had adequate resources available to them to manage issues associated with living with a veteran with PTSD (Vagharseyyedin, 2015). Spouses voiced the need for spouse and family counselling to deal with PTSD in the household (Mansfield et al., 2014; Waddell et al., 2015; Yambo et al., 2016). Spouses developed various means of coping including work, family, friends and peers, education, faith, prayer and counselling (Lyons, 1999; McCormack et al., 2011). In general, spouses don't feel like society sees or understand the burden placed on spouses by PTSD and that the healthcare provider focus is on the veteran and very little, if any, focus is on the spouse (Waddell et al., 2015).

Summary of Systematic Literature Review

A total of sixteen qualitative studies were found that had been conducted between 1987 and 2016. These studies spanned 5 countries (Australia, Iran, Israel, New Zealand, and the United States), and 5 wars (Iranian, Israeli, Gulf, OIF/OEF, and Vietnam). The war veterans studied included those involved in both U.S. and foreign led campaigns and were primarily conducted from the perspective of developed countries. Regardless of the country of study or war, the lived experience of spouses was similar. Spouses experienced problems dealing with the symptoms of PTSD, emotional distress, impacts to relationships and caregiver burden. The systematic literature review revealed limited information on minority or underserved

populations.

Qualitative Study

Semi-structured interviews were conducted with ten spouses of Appalachian spouses of Vietnam veterans with combat-related PTSD. Demographic results along with the results of the thematic analysis are provided in the following sections.

Participant Characteristics

The purposeful sample included ten women who were spouses of Vietnam veterans with PTSD. The average age of the participant was 64 years with a minimum age of 54 and a maximum age of 74. Nine participants were white and one participant was Black. Of the ten participants, one had attained a doctorate, five a master's degree, three had a bachelor's degree and one had a high school education. Two of the participants were retired, one described their occupation as student, and the remaining seven participants were employed in a profession. All participants currently live in South Central Appalachia. Four of the ten participants were born in Appalachia. The minimum time living in Appalachia was 4 years and the maximum was 74 years. This was the first marriage for five participants and the second marriage for the remaining five participants. The average number of years married ranged from nine to 55 with an average of 31. Participant characteristics are provided in Table 2.

Table 2

Participant Characteristics

Participant	Occupation	Years Living in Appalachia	Years Married in Current Veteran Relationship	Marriage
1	Professional	54	15	2 nd
2	Professional	30	40	1 st
3	Retired	15	27	2 nd
4	Retired	74	55	1 st
5	Professional	71	52	1 st
6	Professional	57	11	2 nd
7	Professional	50	18	2 nd
8	Student	4	9	2 nd
9	Professional	48	43	1 st
10	Professional	11	39	1 st

Thematic Results

Results of the thematic analysis unearthed nine themes: (a) dealing with the symptoms of PTSD, (b) veterans diagnosis late in life, (c) unaware of PTSD, (d) her life, (e) emotional reactions, (f) mental health, (g) relationships, (h) dealing with the Veterans Administration, and (i) government and society's treatment of Vietnam veterans. The meaning of each theme is described below, with data extracts that provide evidence to support the theme. Participants were also invited to share coping strategies and to provide advice to young veteran wives whose husbands have combat-related PTSD.

Dealing with the symptoms of PTSD. The theme dealing with the symptoms of PTSD describes the change in the veteran's personality after the combat experience and the expression of symptoms of PTSD. Women who knew their spouse before combat recognized a distinct change in personality and demeanour in the veteran after combat. These women describe the youth, happiness, naivety and idealism their young soldiers went to war with. Upon return, they describe sad, angry, hardened, and hostile men. One participant describes the change in her husband:

“We grew up together, right. I know who he is and I know who they sent me back, all right. They were two different people. I gave them a person who laughs at jokes and they gave me back somebody sad and broken.”

The women reported psychological symptoms in their veterans including nightmares and anxiety and a number of behavioral symptoms including anger, irritability, hostility, verbal abuse, and problems with substance abuse. One woman summed the symptoms well:

“Waking up in the night, screaming and having bad flashbacks, being extremely irritable, trying to sort of rearrange everything in order to make himself less anxious, in later years heavy drinking.”

Nightmares resulted in sleep loss for the spouses, inadvertent violence, and often a separation in sleeping quarters. Spouses reported their husband's nightmares disrupted their sleep and resulted in tiredness during the day. This tiredness had some impacts on the spouse's work performance. Violent behaviour resulting from nightmares was another common experience. One woman describes an episode of inadvertent violence.

“About three months after we were married, he just started getting real restless in the bed one night. He started talking this gibberish. I didn't know what he was saying or what was going on. Next thing I knew, he was tearing up pillows and then had his hands around my throat. I managed to slide off the bed and get out of the room. Then the next

morning, I mean, the mattress was off the bed and he had just had this horrendous nightmare. It was like going back. I don't remember how long it was after that. Some months maybe, six months or so and then it happened again. And this time I actually passed out. I mean, I couldn't get away from him and I had bruises on my neck and he was beside himself with guilt."

The women described anger, irritability, and hostility in the veteran. The veterans were described as having a quick temper and anger response disproportionate to the event. One woman describes being on "pins and needles" throughout her marriage:

"I just had to be on pins and needles all the time. I didn't know what would send him into an outrage. If I cooked something and it wasn't like what he wanted, he would dump it in the trash."

Spouses describe the resultant tension in the household and their efforts to smooth things over and maintain calm in the household.

"That was the thing I remember the most, is just being so uptight about everything I did and everything the kids did. Just don't make daddy mad. Don't upset your dad."

Hostility was reported in the form of verbal abuse that was reported to be particularly harsh and ugly. The veteran was reported to curse and raise his voice to his wife and children. Some instances of verbal abuse increased with alcohol consumption by the veteran. The women described the verbal abuse as violent as and more depressing than physical abuse. These women did not report physical violence other than that associated with nightmares. However, one woman reported intimidating behaviour as follows:

"He completely went off his gourd and he did the gorilla dance which is he puffs his body up and sticks his arms out, and hangs his arms like a gorilla and dances towards me as though he is going to do something violent, yells and screams at me ..."

Alcohol use, ranging from dependency to heavy use was reported by several of the veteran spouses. Spouses report difficulties with the veteran's use of alcohol resulting in legal

actions, driving under the influence (DUI) convictions, and disruption of the household and family relationships. These families used organizations such as Alcoholics Anonymous (A.A) and residential programs for alcohol detoxification to manage the veteran's problems with alcohol overuse.

Unaware of PTSD. The spouses expressed a lack of knowledge about PTSD throughout the marriage and often did not gain information on the illness until more recent times. This may be due in part to the fact that PTSD was not formally recognized as a diagnostic condition until 1980 (U.S. Department of Veterans Affairs, 2016). Although these women knew the combat experience had changed something in their veterans, they did not have a diagnosis or any information about the condition. One woman simply states:

“I didn't know what PTSD was. I've never heard of PTSD.”

The gap in knowledge was related to not knowing that the veteran's behaviour was associated with PTSD. That is, with the occurrence of the most recent wars in Iraq and Afghanistan and the media coverage of PTSD, the spouses were familiar with the term PTSD in recent years, but did not associate it with their veteran's condition.

Veteran's diagnosis late in life. Veteran's diagnosis late in life describes the time lag between when they served until they were diagnosed with PTSD. These men went to Vietnam in their late teens and early twenties and it was not until 30 to 50 years later that they were formally diagnosed with PTSD. Thus veteran families went without diagnosis and treatment of PTSD for 3 to 5 decades. The wives dealt with several factors including not being able to separate what was their veteran's personality versus what was PTSD.

“... we don't know how much is PTSD and how much is just our relationship, so I don't know that.”

“It’s hard to know whether it’s his basic personality...”

The spouses expressed regret over not having a diagnosis earlier that may have changed the course of their lives.

“It’s hard, one thing you’re dealing with somebody who is 70. When you’re looking back in your life as opposed to if I were in my 40s and I had this. I wish I had been. I wish I had this understanding of PTSD.”

Often times the PTSD diagnosis came after the veteran had suffered a medical crisis.

One woman describes it this way:

“His diagnosis came way too late in his life. After he had had a stroke from Agent Orange, in his kidneys he appeared to have kidney cancer recently. He had a massive stroke at 50...”

Her life. Her life describes the changes the spouse made to accommodate the veteran’s PTSD and the resultant impacts. These changes include managing more of the household responsibilities, and changes in her lifestyle. Impacts include the feelings the spouse experienced and mental health impacts.

Managing household responsibilities. The women described managing nearly all household responsibilities often while working full time and taking care of children.

“I do the best I can. I do work full time, and then I go home and I do whatever needs to be done with the house.”

“When it got hard, he just got away (from) everything. I did all the finances ... he tried to do maintenance on the cars, then it got to the point he couldn’t. I would have to pay people. It cost us money. I couldn’t afford anymore.”

“He didn’t want to take any responsibilities for the household, the kids, or anything.”

One woman described the veteran’s inability to deal with day-to-day life:

“He can’t deal with the minutiae of life ... Now, he can tell you every engine that was ever in a Dodge, any year and how to fix it, and what’s wrong with it, but he can’t fill out

paperwork. He won't fill out paperwork, and he can't remember, from day to day, what medications he's on."

One woman spoke of the stress associated with her husband's employment and her support of his multiple job changes.

"...he was working a job and things got to a point where he couldn't do it anymore, he would become so stressed and anxious ... I would simply tell him, Okay. Start looking for something else ... if you need to change jobs, do that. I know there are women who would not tolerate that. He had to do job changes several times."

These women often became the family breadwinners.

"I worked three jobs. At 2:00 AM, I went and picked up newspaper and I put all of my little children in the vehicle with me. The six week old infant, the almost three year old in car seats and then the other children in the passenger seats who helped like to roll up the paper to people porches. So here I have these little children, 2:00 AM, I'm picking up newspapers and we're delivering them. I'd asked them for the longest route they have because I knew that was the one that I would be able to make the most money."

Changes in lifestyle. The women describe changes adaptations made to accommodate the veteran's illness. Spouses report a decrease in social activities and close friendships. Part of this decrease is due to the amount of time and energy it takes to maintain friendships considering the added responsibilities.

"I don't do much else, frankly. I work and then go home. I've fallen into that and have less outside interest since I've been married with (him)". I have withdrawn."

The other factor is the veteran's reluctance to allow outside individuals in the household.

"Socializing, definitely ... I grew up and ... just had a sister, but I had cousins and we've always had people over. My instinct is always to invite you to dinner, "Stay for dinner." You don't do that with him, that's not something (you do). So it took a long time for me to learn what I could and couldn't do. So yes, it cuts into relationships you have with friends."

Spouses report the family unit as being isolated due to the issues associated with PTSD, despite having some close friends to talk to. One woman describes this isolation as follows:

“There’s still – I don’t know how to explain this, but there’s still a sense of isolation in spite of that. That this is the place you live in, this bubble; in your home with your family, with your spouse, and there’s just some isolation that always seems to be present because of the issues with the PTSD.”

Emotional Reactions. Her feelings describe the spouse’s emotional reactions to dealing with the circumstances of PTSD. Spouses report feeling lonely due to the time consuming nature of the illness, the lack of friends and the physical and emotional withdrawal of the veteran spouse.

“It’s lonely.”

“Well if you’re married to somebody who gets upset if you just carefully ask somebody to come to dinner, that’s a good friend. Yes, it makes you alone.”

“Yes, I am married and I am alone.”

“I feel alone sometimes at night in the bed, but for the most part I have my hobbies.”

These women also describe emotional numbing, just not caring after a while and going on with their own lives.

“Anyway, you stop caring. You get numb and you go off and do something else with people with whom you can laugh and share a really deep conversation with, but it’s interesting.”

These women carry a remarkable amount of guilt due to the fact that they did not know what their husbands went through in Vietnam, they did not know about PTSD as an illness, they did not know how to deal with it, and they were not as kind, patient, and compassionate as they would have liked to have been.

“It hurt, made me feel guilty because I didn’t know what he went through, and I think if I had known what he went through, I could’ve been more compassionate because I was not a good wife when he came back. I didn’t take a lot ... he dished out a lot, but I didn’t take a lot. I would yell back at him, and that’s what was really bad for the kids when they would see the mom and dad both.”

Mental Health. Living with the illness, its symptoms and the emotions associated with that took a toll on mental health of the veteran spouse. Spouses report depression, anxiety, suicide ideation, and a decrease in self-worth.

“I think it wore me down. I really think that my sense of worth probably was affected by that...”

Spouses report being traumatized by the experience of living with a veteran with PTSD.

“Because I think that by the way, he acted when he come home from Vietnam, me and the kids, we have PTSD. We’re traumatized. I was very traumatized. Our son was traumatized more so than our daughter.”

Relationships. Relationships describe the impact on the marital and parent-child relationships resulting from PTSD. The women described a marital relationship with varying degrees of closeness. Husbands are described as being their best friend and being very close but also a closing off in the relationship in terms of physical and emotional intimacy.

“He’s been pushing me out of – or destroying parts of the intimacy of our relationship and the things we had.”

“I don’t think we’re very close, although I think we understand each other pretty well possibly from the time.”

Parent-Child relationships appear to bring the most trouble to these women. They express sadness and regret for the loss of the relationship between the veteran and the child.

“The saddest thing is you only get one chance to be involved with your children. You only get one chance and he was absent. For him and for them, I cry. It’s just too bad.”

The Ultimatum. Several women describe a time in the marriage when they had enough and issued an ultimatum to get help or else the relationship was over. The events leading to the ultimatum included the stress associated with the veteran’s symptoms, the challenges living with the veteran, the challenges of managing household responsibilities and substance abuse issues.

“Well, about four or five years ago, I put my foot down and I said, “You go to the VA or we’re divorcing.” So, he went to the VA...”

One woman tells a remarkable story of the ultimatum after a particularly violent episode in the home.

“I said, you go to VA, you go to – I don’t care, mental health, somewhere. You get some help and then we’ll talk. You got to do something. We can’t do it by ourselves. I can’t do it all alone, so do something and then we’ll talk. And I took the vehicle and he walked to the VA.”

Dealing with the Department of Veterans Affairs. This theme describes the challenges in obtaining VA health care benefits and services and in obtaining disability compensation for injuries or diseases that occurred on active duty. The system was described as being difficult to navigate, burdensome, and access to health care was not timely. Spouses report situations where they literally cried for help in a VA health care facility. As one woman described:

“...but there weren’t treating (him) and I start crying, “What am I supposed to do? Send him out on the street?” ... I don’t care, just help the man. He laid up there for a month. This doctor went to Scotland and his physician’s assistant didn’t do anything,... Once when his doctor came back from overseas ... and he did an MRI and said, “My God, we’ve got to operate now.”

Another woman describes her frustration after arriving at the VA hospital seeking emergency care for her husband. She arrived in the morning and was not seen until she literally made a scene. She describes it as follows:

“And I’m saying, “Someone is going to see him now.” They looked at me. And I stepped back and I stamped my foot and I said really loud, “Somebody is going to see him.” They were like, “Can we help you?” “Yes you can help me, we’ve been here since ten o’clock this morning, he’s in pain, something’s really wrong, somebody is going to see him!”

The women acknowledge differences in the way the VA manages health care now, however, they express frustration over past treatment of Vietnam veterans. They also expressed

frustration over trying to get disability benefits for their veteran. Frustration was often due to the process for obtaining proof of the veteran's PTSD. One woman shared:

“It's humiliating, you have to remember like what month, where you were, who could have witnessed your lieutenants' brains being blown out ... The paperwork is terrible.”

The women expressed concern that the VA doesn't really want to treat the Vietnam veterans that they are just waiting for them to die.

“Of course the joke with the veterans is if they don't treat them if the veteran dies then there's one less man that had PTSD.”

“Like the last time, my husband was in the hospital – he has this congestive heart failure situation – they were pressuring him. I don't care if that's going to hurt somebody's feelings or not but they were pressuring him to put a DNR and I said, “This man is 71. He has a family that needs him. He is important. He can still be revived.”

Government and Societies treatment of Vietnam veterans. This theme describes the spouse's perspectives on the treatment of Vietnam veterans. These spouses describe the hostile homecoming endured by the returning service members, with incidents of name-calling, insults and physical aggression toward the veteran remaining as a strong impression for the spouse. The spouses related that the government should have managed the re-entry of veterans so that they would not have had to experience that type of public reception.

“We could have told people who've gathered in San Francisco, being mean to these guys. We could have told them, “You're opposing the war. You're not opposing my husband.”

The spouses believe that the government does not value the Vietnam veterans. They believe that the government sees them as a financial liability and an episode in American history that they want to forget. One woman relates her feelings:

“They wanted all the World War II veterans to live, to be a hundred, and they were the greatest generation. They were. I won't take away from them. It's that, you really should wipe the spit off my husband's uniform. You shouldn't be saying, ‘Sign a DNR’

until you know the war he went through when he came through San Francisco.” When they ripped the – he called them the chevrons – off our soldier’s arms like it was their fault the Vietnam War sucked.”

The spouses regret that there were no resources to help the Vietnam veterans upon return and that the Vietnam veterans continue to struggle to get governmental benefits. The spouses acknowledge that there was no clinical diagnosis for PTSD until 1980, but they believe there hasn’t been sufficient outreach and support for Vietnam veterans. One woman simply states:

“There was nothing to help either of us. . . . No, I’m pissed at the government about that.”

“The military just didn’t do anything for us back then. They didn’t. I loved the military but they just didn’t help us like they should have. Especially the Vietnam Vets, they didn’t do anything. We had no counselling. We had nothing. I didn’t know how to deal with it.”

Coping

Coping describes the spouse’s methods for dealing with the extremely difficult circumstance presented by the veteran’s PTSD. Spouse’s related several means of coping including work, exercise, pets, reading, friendships, counselling and faith.

“Well, a lot of it I’ll just go on, I just do. You get lost in work.”

“Right. As a matter of fact, I became a runner. This was my salvation.”

“We had dogs, and I got some comfort from taking care of them.”

“See, I am in therapy. I go to a psychotherapist about every two weeks now, and he has a therapist, but he doesn’t go.”

The women reported that having close supportive friendships helped them cope. One individual actively cultivated supportive friendships as a means of managing the stress. The women also reported spirituality as a means of coping. Believing in a higher power and a greater force gave them strength and inspiration to deal with the issues at hand.

“I’m a religious person; well I hesitate to go there because it’s not the popular way. But that’s where I go. When I can’t do it, I just go to God. If it’s corny, that’s okay, but that’s where I am, that’s who I am.”

“And so there’s God and there’s good therapy.”

A couple of the women reported the use of alcohol as a coping mechanism for them. The ability to have a couple of glasses of wine to relax and mitigate the stresses was beneficial.

These women did not indicate alcohol overuse, but their use was moderate to heavy and not uncontrolled.

“But we use alcohol. We probably are both are heavy drinkers but not uncontrolled drinkers.”

Advice

The women provided several key messages regarding actions recommended for those dealing with veterans with combat-related PTSD. The women understood that PTSD affects the entire family, the veteran, the spouse and children. For example, one participant comments, “PTSD affects everybody around them.”

Counselling. They recognized that the effects went beyond the nuclear family and extended to parents, siblings, in-laws and grandchildren. Regarding counselling, one participant states, “The spouse needs it (counselling) and the children, the children need it.”

De-programming. Everything considered, the women first recommended exit counselling or de-programming for the veteran. These Vietnam veterans were trained to kill and were then returned to a domestic situation. One woman speaks of the re-entry process for warriors in other cultures:

“They were de-programmed, so to speak as warriors and were able to re-enter society as husbands, and fathers and brothers. We don’t do that. Why don’t we do that?”

Personal Qualities. The women also advocated fostering personal qualities such as patience and kindness in the relationship. They indicate if they had only known and understood the horrors the veterans went through they would have been more patient and kind in their dealings with their spouse. One participant expressed the need to “To give them a chance. I mean help – give them a chance. I guess maybe that is my coping thing. Just be as kind as you can and try.”

Education. The women recommended education on PTSD, communication to gain an understanding of the veteran’s experiences and developing a plan to manage PTSD in the couple’s lives. One participant advised:

“I think people newly facing this are going to have to have a plan; how are we going to raise children? How are we going to deal with anxiety? How are we going to identify this to each other and say, “Oh, PTSD today,” or are we going to pretend it’s not there? So, I would say lots of honesty, avail yourself of everything available to you to understand it, and then just decide how you’re going to proceed; if you’re going to proceed.”

Message to Society and the Government

The women expressed a need for society to acknowledge PTSD and fund care for Vietnam veterans.

“It’s real. It is, recognize it, come up with the money to help fund (it).”

“Recognize it. Don’t think that because you don’t see it, it’s not there. You better take care of these guys.”

They recognize the burden PTSD places on families and society:

“I would say think twice before we send people into battle because you have then made a lifelong commitment to the mental health of those men and women who are in battle. It won’t go away when they get out of the service. This will affect everything that happens with them. It’ll affect the marriage and divorce rate. It’ll affect the children. It’ll affect the economy of the country and it’s going to cost a bundle, so be prepared to either vote the money or vote not to get into battle.”

Future for Young Veteran Wives

The study participants did not see an improved future for the wives of young veterans with PTSD. They expressed concern over the access to care and the availability of resources to care for the veteran and the spouse. They see what the future may hold for the young veteran with PTSD, “I know, even if you don’t know, where you’re headed. Whether it goes deep or shallow, I know where you’re headed.” For the veteran spouses they predict, “Oh, it won’t be that different than what I’ve lived through. They better be strong. They better be independent. I hope that divorce isn’t the answer.”

Summary of Qualitative Study

Results of the individual interviews indicated these spouses had problems dealing with the symptoms of PTSD, relationship problems, and experienced caregiver burden. The veteran’s diagnosis for PTSD came later in life so they spent much of their relationship unaware that their experiences were related to their husband’s military service. The stress of living with the illness caused mental health concerns including depression, anxiety, suicidation and a decrease in self-worth. These women also reported challenges dealing with responsible government agencies and in obtaining health care. The women used a variety of coping mechanisms including work, exercise, pets, reading, friendships, counselling and faith. Recommendations for young veteran wives include de-programming for the veteran, counselling, education, fostering personal qualities (patience and kindness) and education. They voiced a strong message to government and society to acknowledge the psychological impacts of war on the veteran and his family and to fund the treatment of resulting conditions.

CHAPTER 5

DISCUSSION

Systematic Review

The aim of the systematic literature review was to identify gaps in existing knowledge regarding impacts of combat-related PTSD on the spouse. The results of this review indicate 1) limited research has been conducted on this topic; 2) of the research conducted, only one study was conducted on a minority or underserved population and 3) results of the limited research indicate that the lived experience of spouses was similar independent of country of study or war.

The results of this systematic review are broadly consistent with an integrative review conducted by Yambo and Johnson (2014) on a similar topic, the mental health of spouses living with veterans with PTSD. Yambo and Johnson's (2014) integrative review found fourteen quantitative and qualitative studies conducted in seven countries (Australia, Canada, Croatia, Iran, Israel, The Netherlands, and the United States) between 1987 and 2011. Results Yambo and Johnson's (2014) study indicate that veteran spouses experience a range of mental health concerns including secondary traumatic stress, spouse burden and psychological stress (Yambo & Johnson, 2014).

Only one study was conducted on a minority population and investigated the lived experiences of spouses of African-American Gulf War veterans (Bowling, 2015). Results of Bowling (2015) indicated experiences of spouses of African-American Gulf War veterans were similar to other study populations. Problems of spouses included dealing with the symptoms of PTSD, emotional distress, impacts to relationships and caregiver burden. Bowling (2015) noted the historical, cultural, and social issues specific to African-Americans might prevent this population from seeking or receiving formal care. Family and church were identified as

important components of this culture. Bowling's study highlighted the need to understand cultural patterns and nuances to provide effective services to minority populations (Bowling, 2015).

This dissertation research is the first systematic review to examine the overall experiences of spouses living with veterans with combat-related PTSD. The findings of this literature review are not unexpected because much research being conducted is focused on the veteran's PTSD with far fewer studies being conducted to examine impacts of PTSD on spouses. The main limitation of this study was restriction to English text articles. This may have excluded studies from developing countries where various impacts of PTSD may occur due to a different worldview and cultural characteristics.

The results of this systematic review contribute to the body of knowledge available regarding impacts of combat-related PTSD on the spouse. It suggests similar lived experiences for spouses regardless of war or country and identifies a gap in knowledge related to studies on minority and underserved populations. This review can be used as a resource for practitioners to gain an understanding of the lived experiences of spouses. This knowledge can then inform interventions and treatment. Future research is needed to expand the body knowledge on the lived experiences of spouses and with particular focus on the experiences of minority and underserved populations.

Qualitative Study

The aim of the qualitative study was to gain an understanding of the lived experiences of Appalachian spouses of Vietnam veterans with combat-related PTSD. The main findings of this study are: (a) Appalachian spouses of Vietnam veterans with combat-related PTSD experience problems (dealing with the veteran's symptoms of PTSD, relationships, mental health, and

caregiver burden) similar to other veteran spouses; (b) the veteran's diagnosis came late in life so they spent much of their relationship unaware that their spouse had PTSD; and (c) these women expressed that Vietnam veterans have been marginalized by government and society.

The findings in this study are consistent with reports in the literature showing that spouses of Vietnam veterans with PTSD experience problems dealing with the veteran's symptoms, relationship problems, mental health problems and caregiver burden (Frederikson et al., 1996; Lyons, 1999; Maloney, 1988; Waddell et al., 2015). Frederikson et al., (1996) report the experience of New Zealand Vietnam veteran spouses with violence and anger and the spouses' attempts to manage the household to avoid the veteran's upset. Studies of U.S. spouses of Vietnam veterans report similar experiences living with veterans with PTSD including: dealing with the symptoms, substance abuse, and physical and or emotional abuse (Lyons, 1999; Maloney, 1988). Problems with relationships were described as impairments to communication, emotional withdrawal, and the husband and father who is absent. These conditions placed a great deal of stress on the spouse. Despite the stress the illness placed on the relationship, these women care a great deal for their spouse and became their protectors. Caregiver burden including managing more household and parenting responsibilities were reported in U.S. spouses of Vietnam veterans (Lyons, 1999; Maloney, 1988). The lives of these women are defined by the veteran's illness and results in emotional disturbances, a reduced quality of life and increased caregiver burden (Frederikson et al., 1996; Lyons, 1999; Maloney, 1988; McCormack et al., 2011).

Only one other study was found where the veteran's PTSD diagnosis came late in life (Mansfield et al., 2014). In conducting a thematic review of survey responses, Mansfield et al. (2014) noted one respondent's comment that they had been living with PTSD for 40 years before

it finally got a name. PTSD was not formally identified as a mental disorder by the American Psychiatric Association (APA) until 1980, five years after the war ended (U.S. Department of Veterans Affairs, 2016). That fact, combined with society's treatment of returning Vietnam service members set the stage for these veterans to avoid seeking help for any psychological symptoms they may have been experiencing. The women in this study indicated there was no education or outreach to Vietnam veterans during military service or subsequent to service regarding PTSD. While assistance may have been available from responsible governmental agencies, it was largely not accessed due to lack of outreach. Ultimately, these veterans and spouses navigated the unknown ground without support from responsible government agencies.

It's interesting to note the only other study that found a knowledge gap between time of exposure to war and diagnosis of PTSD was a study conducted on Israeli combat veteran spouses (Kimhi & Doron, 2013). This study found that the majority of spouses did not know what the problem with their veteran was and they had no idea it was connected to military service. The Appalachian veteran spouses experienced similar problems with not knowing what the problem was; however, they did connect it to military service in Vietnam since many of these women noted a marked change in the veteran after the war.

The spouses of Vietnam veterans in this study expressed concern over the treatment of Vietnam veterans by the government and society. Frederickson et al. (1996) reports that New Zealand veteran spouses held society accountable for many of the problems that the Vietnam veterans faced. They expressed the view that society had let them down by turning against the veteran to protest the government's participation in the war. Upon returning home, veterans were dishonoured and shunned. This maltreatment left the veteran and their families marginalized and vulnerable (Frederikson et al., 1996). Maloney (1988) reports how Vietnam

veterans came home as nonheros, alone, with no psychological debriefing to a country that labelled them as “baby-killers” and to a country that ignored them. McCormack et al. (2011) report veteran and spouses feelings of isolation and shame due to their association with Vietnam. As a result of this treatment, veterans and spouses insulated themselves from family and government institutions that could be a source of support and assistance.

Being a spouse of a Vietnam veteran with PTSD places a burden on the individual, the family and the relationship. This is the first study to examine the lived experiences of Appalachian Vietnam veteran spouses. Study results indicate the experiences of Appalachian Vietnam veteran spouses are similar to other Vietnam veteran spouses and to veteran spouses of other wars. Only one other study has identified the lag in time between exposure to combat and diagnosis of PTSD in Vietnam veterans (Mansfield et al., 2014). Findings from this research highlight the maltreatment of Vietnam veterans by society and government. Upon identification of PTSD as a mental disorder, there was no outreach and education to Vietnam veterans or their families.

Strengths and Limitations

The key strengths of this study are the use of semi-structured interview process to capture the conversational tone of the interviews, the rich data it produced, and the consistency of the findings with existing literature. This study has several limitation including, the recruitment population, the voluntary nature of the study and self-report of information. The recruitment e-mail was sent via a university wide system. This may have resulted in a homogeneous study population in terms of education and may not be representative of all Appalachian veteran spouses. The current study population is biased toward higher levels of education. The voluntary nature of the sample may have influenced the study in that those who volunteered to

participate may be systematically different from those who did not volunteer for the study. The self-report aspect of the study may have influenced responses in a socially acceptable or more favourable manner. Future studies are recommended to recruit a more diverse population in terms of socioeconomic status.

Implications for Practice and Research

This research highlights the need for outreach and PTSD education for Vietnam veterans and their spouses. There is a need for education of health providers, government entities, and the general community about the nature of PTSD and its impacts on relationships. There is also a need for mental health services to be extended to spouses of veterans.

Future research is recommended to expand the body of knowledge on the impacts of PTSD on the spouse with particular attention to other cultures, minority and underserved populations. A study of health impacts and mortality rates of spouses of Vietnam veteran spouses with combat-related PTSD would be of interest. Given the prolonged psychological stress resulting from the relationship, it's likely to have health and longevity impacts on the spouse. Finally, given the age of Vietnam veterans and their spouses, research on the issues of aging as they related to PTSD could benefit the veteran, spouse and health care providers.

Conclusions

This research was conducted to systematically explore the literature for impacts of combat-related PTSD on the spouse and to gain an understanding of the lived experiences of Appalachian Vietnam veterans with combat-related PTSD. Results of the systematic review indicate a paucity of research on the impacts of PTSD on the spouse. Studies that have been conducted indicate that spouse's lives are significantly impacted by their husband's illness. The qualitative study results indicate Appalachian Vietnam veteran spouses have similar lived

experiences as spouses of other veterans with combat-related PTSD regardless of war or country. Implications to practice include a need for outreach to Vietnam veteran wives, education, and treatment. Additional research is needed to broaden knowledge on impact of combat-related PTSD on spouses.

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APPENDICES

APPENDIX A

SEARCH TERMS

((("spouses"[MeSH Terms] OR "spouses"[tiab] OR "spouse"[tiab]) OR partner[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wives"[tiab]) OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wife"[tiab]) OR "female partner"[tiab] OR mate[tiab] OR bride[tiab] OR helpmeet[tiab] OR ("friends"[MeSH Terms] OR "friends"[tiab] OR "companion"[tiab]) OR "domestic partner"[tiab] OR "significant other"[tiab] OR cohabitant[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "husband"[tiab]) OR fiance[tiab] OR ("friends"[MeSH Terms] OR "friends"[tiab] OR "companion"[tiab]) OR housemate[tiab] OR lover[tiab] OR roommate[tiab] OR "room mate"[tiab] OR helpmate[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab]) OR partners[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wives"[tiab]) OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wife"[tiab]) OR "female partners"[tiab] OR mates[tiab] OR brides[tiab] OR helpmeets[tiab] OR ("friends"[MeSH Terms] OR "friends"[tiab] OR "companions"[tiab]) OR "domestic partners"[tiab] OR "significant others"[tiab] OR cohabitants[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "husbands"[tiab]) OR fiancees[tiab] OR ("friends"[MeSH Terms] OR "friends"[tiab] OR "companion"[tiab]) OR housemates[tiab] OR lovers[tiab] OR roommates[tiab] OR "room mates"[tiab] OR helpmates[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "spouse"[tiab]) OR partner[tiab] OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wives"[tiab]) OR ("spouses"[MeSH Terms] OR "spouses"[tiab] OR "wife"[tiab]) OR "female partner"[tiab] OR mate[tiab] OR bride[tiab] OR helpmeet[tiab] OR ("friends"[MeSH Terms] OR

“friends”[tiab] OR “companion”[tiab]) OR “domestic partner”[tiab] OR “significant other”[tiab]
 OR cohabitant[tiab] OR (“spouses”[MeSH Terms] OR “spouses”[tiab] OR “husband”[tiab]) OR
 fiance[tiab] OR (“friends”[MeSH Terms] OR “friends”[tiab] OR “companion”[tiab]) OR
 housemate[tiab] OR lover[tiab] OR roommate[tiab] OR “room mate”[tiab] OR helpmate[tiab]
 OR (“spouses”[MeSH Terms] OR “spouses”[tiab]) OR partners[tiab] OR (“spouses”[MeSH
 Terms] OR “spouses”[tiab] OR “wives”[tiab]) OR (“spouses”[MeSH Terms] OR “spouses”[tiab]
 OR “wife”[tiab]) OR “female partners”[tiab] OR mates[tiab] OR brides[tiab] OR helpmeets[tiab]
 OR (“friends”[MeSH Terms] OR “friends”[tiab] OR “companions”[tiab]) OR “domestic
 partners”[tiab] OR “significant others”[tiab] OR cohabitants[tiab] OR (“spouses”[MeSH Terms]
 OR “spouses”[tiab] OR “husbands”[tiab]) OR fianceses[tiab] OR (“friends”[MeSH Terms] OR
 “friends”[tiab] OR “companion”[tiab]) OR housemates[tiab] OR lovers[tiab] OR
 roommates[tiab] OR “room mates”[tiab] OR helpmates[tiab]) AND ((“military
 personnel”[MeSH Terms] OR (“military”[tiab] AND “personnel”[tiab]) OR “military
 personnel”[tiab] OR “soldier”[tiab]) OR “service members”[tiab] OR “service member”[tiab]
 OR “military member”[tiab] OR “military members”[tiab] OR “combat veteran”[tiab] OR
 “combat veterans”[tiab] OR (“veterans”[MeSH Terms] OR “veterans”[tiab] OR “veteran”[tiab])
 OR “war veteran”[tiab] OR “war veterans”[tiab] OR GI[tiab] OR “service man”[tiab] OR
 “service men”[tiab] OR warrior[tiab] OR infantryman[tiab] OR infantrymen[tiab] OR
 combatant[tiab] OR fighter[tiab] OR (“military personnel”[MeSH Terms] OR (“military”[tiab]
 AND “personnel”[tiab]) OR “military personnel”[tiab] OR “marine”[tiab]) OR trooper[tiab] OR
 cadet[tiab] OR (green[tiab] AND beret[tiab]) OR (green[tiab] AND berets[tiab]) OR
 (infantry[tiab] AND (“persons”[MeSH Terms] OR “persons”[tiab] OR “person”[tiab])) OR
 (infantry[tiab] AND (“persons”[MeSH Terms] OR “persons”[tiab])) OR ((“military

personnel"[MeSH Terms] OR ("military"[tiab] AND "personnel"[tiab]) OR "military
personnel"[tiab] OR "military"[tiab] AND ("persons"[MeSH Terms] OR "persons"[tiab] OR
"person"[tiab])) AND "military persons"[tiab] OR "service person"[tiab] OR "service
persons"[tiab] OR "military personnel"[MeSH Terms] OR "Personnel, Military"[tiab] OR
"Armed Forces Personnel"[tiab] OR ("military personnel"[MeSH Terms] OR ("military"[tiab]
AND "personnel"[tiab]) OR "military personnel"[tiab] OR ("personnel"[tiab] AND
"armed"[tiab] AND "forces"[tiab])) OR "Army Personnel"[tiab] OR ("military
personnel"[MeSH Terms] OR ("military"[tiab] AND "personnel"[tiab]) OR "military
personnel"[tiab] OR ("personnel"[tiab] AND "army"[tiab])) OR "Coast Guard"[tiab] OR
("military personnel"[MeSH Terms] OR ("military"[tiab] AND "personnel"[tiab]) OR "military
personnel"[tiab] OR "submariners"[tiab]) OR ("military personnel"[MeSH Terms] OR
("military"[tiab] AND "personnel"[tiab]) OR "military personnel"[tiab] OR "submariner"[tiab])
OR "Navy Personnel"[tiab] OR ("military personnel"[MeSH Terms] OR ("military"[tiab] AND
"personnel"[tiab]) OR "military personnel"[tiab] OR ("personnel"[tiab] AND "navy"[tiab])) OR
("military personnel"[MeSH Terms] OR ("military"[tiab] AND "personnel"[tiab]) OR "military
personnel"[tiab] OR "sailors"[tiab]) OR ("military personnel"[MeSH Terms] OR
("military"[tiab] AND "personnel"[tiab]) OR "military personnel"[tiab] OR "sailor"[tiab]) OR
("military personnel"[MeSH Terms] OR ("military"[tiab] AND "personnel"[tiab]) OR "military
personnel"[tiab] OR "soldiers"[tiab]) OR ("military personnel"[MeSH Terms] OR
("military"[tiab] AND "personnel"[tiab]) OR "military personnel"[tiab] OR "soldier"[tiab]) OR
"Air Force Personnel"[tiab] OR ("military personnel"[MeSH Terms] OR ("military"[tiab] AND
"personnel"[tiab]) OR "military personnel"[tiab] OR ("force"[tiab] AND "personnel"[tiab] AND
"air"[tiab])) OR ("military personnel"[MeSH Terms] OR ("military"[tiab] AND

“personnel”[tiab]) OR “military personnel”[tiab] OR (“personnel”[tiab] AND “air”[tiab] AND “force”[tiab])) OR (“military personnel”[MeSH Terms] OR (“military”[tiab] AND “personnel”[tiab]) OR “military personnel”[tiab] OR “marines”[tiab])) AND ((“stress disorders, post-traumatic”[MeSH Terms] OR (“stress”[tiab] AND “disorders”[tiab] AND “post-traumatic”[tiab]) OR “post-traumatic stress disorders”[tiab] OR “ptsd”[tiab]) OR “post traumatic stress disorder”[tiab] OR “post-traumatic stress disorder”[tiab] OR “stress disorder”[tiab] OR “combat stress”[tiab] OR “stress disorder, post traumatic”[tiab] OR “stress disorder, post-traumatic”[tiab] OR “combat fatigue”[tiab] OR “combat disorder”[tiab] OR “combat neurosis”[tiab] OR “shell shock”[tiab] OR “battle fatigue”[tiab] OR “delayed-stress disorder”[tiab] OR “shell-shock”[tiab] OR “post traumatic stress syndrome”[tiab] OR “post-traumatic stress syndrome”[tiab] OR “stress response system”[tiab] OR “soldier’s heart”[tiab] OR “war neurosis”[tiab]) AND (“humans”[MeSH Terms] AND English[lang])

APPENDIX B
RECRUITMENT E-MAIL

Research Study
Volunteer Opportunity!

Hello, my name is Janice Greene. I am a doctoral candidate at East Tennessee State University (ETSU). I'm doing a study that involves learning about the experiences of Appalachian spouses and co-habitants of Vietnam veterans with combat-related post-traumatic stress disorder (PTSD). I am looking for female spouses of Vietnam veterans with PTSD who live in Southwest Virginia, Northeast Tennessee or Western North Carolina. This study involves individual interviews that will take place in a comfortable setting where privacy and safety can be assured. Please consider participating in this important study.

Participation in the study is voluntary and privacy of participants will be maintained. All information related to the study is confidential. This study has been approved by the ETSU Institution Review Board. If you would like to participate in the study, or have any questions please contact me at greenej2@mail.etsu.edu or 423.791.0852.

PTSD Research Study
greenej2@mail.etsu.edu

APPENDIX C
PHONE SCRIPT

My name is Janice Greene. I'm a doctoral candidate at the College of Public Health at East Tennessee State University. Thank you for contacting me concerning my research project entitled a "Phenomenological Study of the Lived Experiences of Appalachian Spouses of Combat Veterans with Post Traumatic Stress Disorder ". The focus of this project is to gain an understanding of the experience of spouses of Vietnam veterans with post-traumatic stress disorder. The purpose of this phone interview is to determine if you meet the criteria of this study. I'd like to ask you several questions:

1. Are you over the age of 18?
2. What state and county do you live in? How long have you lived there?
3. Have you been married or cohabitated with a Vietnam veteran who has been diagnosed with PTSD?
4. How was he diagnosed with PTSD?
5. Was your spouse's service in the Vietnam between February 28, 1961, and ending on May 7, 1975? Did he serve in another country between August 5, 1964, and May 7, 1975?
6. Is his PTSD related to his combat experience?

Note: If the participant does not meet the criteria, paragraph A will be read. If the questions are answered in such a way as to meet the criteria paragraph B will be read.

Paragraph A: I'm sorry; you do not meet the criteria for the study. I appreciate your interest in this study and your willingness to participate. Thanks again for contact me regarding the study.

Paragraph B: You meet the criteria for the study. So I'd like to give you some more information. Participation in this study is voluntary and there is a \$40 honorarium upon completion of the interview. The study consists of a short demographic questionnaire that should take about 5 minutes and an interview lasting 60-90 minutes. You will be asked to complete an informed consent before we begin. You will keep a copy of the informed consent and I'll retain one for my records.

The interview will take place at a time that is convenient for you. The meeting place will be private and available at no cost to you or the researcher. For accuracy in capturing the interview, I will use a laptop computer for the purpose of digital audio recording during the interview. I have a list of questions to ask you. You will have the option to answer the question, come back to the question or not answer a question.

Thank you for contacting me and please feel free to ask any additional questions at this time.

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

1. Where do you live?
 - a. State _____
 - b. County _____
2. How long have you lived there? _____ years?
3. What is your age? _____ years?
4. What is your race?
5. Which of the following best describes your highest level of educational achievement?
 - a. _____ Did not finish high school
 - b. _____ High school graduate
 - c. _____ Completed a technical/vocational program
 - d. _____ Less than 2 years of college
 - e. _____ 2 years of college or more and earned an Associate's degree or equivalent
 - f. _____ Earned a Bachelor's degree
 - g. _____ Earned a Masters' degree
 - h. _____ Earned a Ph.D., or equivalent
6. What is your current occupation?
7. How many years have you been married or cohabitated?

APPENDIX E
INTERVIEW SCRIPT

Prior to starting the interview, the following script will be read.

Hello, my name is Janice Greene. I'm a doctoral candidate at the College of Public Health at East Tennessee State University. Thank you for participating in my research project entitled a "Phenomenological Study of the Lived Experiences of Appalachian Spouses of Combat Veterans with Post Traumatic Stress Disorder". The focus of this project is to gain an understanding of the experience of spouses of Vietnam veterans with post-traumatic stress disorder.

Participation in this study is voluntary and there is a \$40 honorarium for your participation. You must complete an informed consent before we begin the interview. I will ask you to sign two copies. I will give you one copy and keep the other copy for my records. Before we start the interview I will also ask you to complete a short demographic questionnaire. This should take no longer than 5 minutes

Once the questionnaire is complete, the interview will begin. The interview will last approximately 60 to 90 minutes. I have a list of questions to ask you. You have the option to answer the question, come back to the question or not answer a question. For accuracy in capturing the interview, I will use a laptop computer for the purpose of digital audio recording.

If you have any questions or concerns, please feel free to ask them at any time.

Once again, thank you for your participation.

APPENDIX F

SEMI-STRUCTURED INTERVIEW QUESTIONS

I have three main I'd like to ask you. The first area is about your experiences and feelings related to living with your husband's PTSD, the second is about how you cope and the third is about advice you would give to others.

1. Tell me about your experiences living with a husband with PTSD.
 - a. How has this impacted your relationship with your husband? You mentioned *****, but how about
 - i. Communication
 - ii. Avoid closeness, Intimacy
 - iii. Taking on more responsibility
 - b. How has this impacted your life at home?
 - c. How has this impacted your daily activities?
 - d. How has this impacted your relationship with family and friends?
 - e. Of those things you mentioned, which one has impacted you the most?
 - i. **PROMPT:** Can you tell me more about its impact on your life?
2. How does this make you feel?
 - a. **PROMPT:** You mentioned feeling ***** but how about? **PROBE:**
 - i. Depressed, anxious
 - ii. Alone, isolated, anti-social
 - iii. Fearful, helpless
 - iv. Physical complaints
 - v. Caring, protective
 - b. Can you think of any other ways that you have been affected?

Now I want to ask you a few questions related to the things you do to help cope with your husband's PTSD. You mentioned some of the ways that PTSD has impacted you. (Restate those things...)

3. What things do you do to help **cope** with your husband's PTSD?
 - a. Who (What) do you rely on for support to help cope with your husband's PTSD?
 - i. **Probe:** family, friends, community resources, church
 - b. **Prompt:** So you mentioned (restate something...family), what about community resources such as ...or church?
4. Do you wish you had any other supports to help you cope with your husband's PTSD
 - a. What supports do you feel you need?
5. Let's pretend for a moment that you could talk a wife of a recent war veteran whose husband has PTSD. What would you want to tell the wife?
6. If you were given 1 minute to speak to (someone of influence here like a room full of healthcare providers) about your experiences as a spouse of a Vietnam Vet with PTSD, what would you want them to know?
7. Is there anything else you would like to add to this interview?

APPENDIX G

INFORMED CONSENT DOCUMENT

PRINCIPAL INVESTIGATOR: Janice Greene

TITLE OF PROJECT: Phenomenological Study of the Lived Experiences of Appalachian Spouses of Combat Veterans with Post Traumatic Stress Disorder

East Tennessee State University Participant Informed Consent for Individual Interview

You are invited to take part in a study to gain an understanding of the experience of spouses of Vietnam veterans with post-traumatic stress disorder (PTSD). Please review this information and sign at the end of the document if you wish to participate in this research project.

If you agree to participate in this study, you can still choose not to take part without any penalties for nonparticipation.

PURPOSE

This study is being conducted to gain an understanding of the lived experience of Appalachian spouses or co-habitants of Vietnam veterans with combat-related PTSD. This information will be used to identify implications for research and practice.

DURATION

Conducting the interviews will take approximately 1 to 2 hours to complete.

PROCEDURES

You will be asked to respond to general demographic questions and questions about your experiences living with a Vietnam veteran with combat-related PTSD.

ALTERNATIVE PROCEDURES/TREATMENTS

You may choose not to participate without penalty.

POSSIBLE RISKS/DISCOMFORTS

This study does not represent more than minimal risk to you. You may feel uncomfortable when answering questions related to your experiences; however, you will only be asked to respond to those questions that you feel comfortable answering. You can discuss the risk of being in this study with the researcher. The researcher will provide resources to contact should you need it regarding domestic abuse, caregiver support or mental health support.

If you disclose information that may lead the researcher to suspect that an adult or child has suffered abuse, neglect, or exploitation, it is a state law that this information must be reported to the appropriate authority.

POSSIBLE BENEFITS

You may benefit from taking part in this research study that will aid in development of effective interventions and contribute to research.

COMPENSATION IN THE FORM OF PAYMENTS TO RESEARCH PARTICIPANTS

You will receive a \$40 gift card for participating in this interview session.

VOLUNTARY PARTICIPATION

APPENDIX H
RESOURCE GUIDE

Domestic Violence

The National Domestic Violence Hotline: 1.800.799.7233

www.thehotline.org

Mental Health

Veterans Crisis Line: 1.800.273.8255 (press 1)

www.veteranscrisisline.net

SAMHSA Treatment Referral Helpline: 1.877.726.4727

www.mentalhealth.gov

Frontier Health 24/7 Crisis Services for Northwest Tennessee and Southwest Virginia

www.frontierhealth.org

24 hour Helplines:

In Tennessee: 877.928.9062

In Virginia:

Lee County: 276.346.3590

Scott County: 276.225.0976

Wise County: 276.523.8300

Caregiver Support

VA Caregiver Support Line: 855.260.3274

www.caregiver.va.gov

VITA

JANICE E. GREENE

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M.S., Environmental Health, East Tennessee State University, Johnson City, TN, 1994
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Greene, Janice E. and Moore, Richard A. (September 1997). Hydrogeologic Characterization of a Nuclear Fuel Manufacturing Facility. Presented at the American Nuclear Society 2nd Topical Meeting on Decommissioning, Decontamination and Reutilization of Commercial and Government Facilities, Knoxville, Tennessee, September 7 - 12 (592-597). American Nuclear Society: La Grange Park, Illinois.
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