PREDICTORS OF POSTDEPLOYMENT DISTRESS IN FEMALE VETERANS

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ABSTRACT

The female veteran population is expected to increase over the next few decades, representing approximately 16.3% of the living population by the year 2042. Although research exists regarding the entire veteran population, research relating to female veterans is lacking. The purpose of this study was (a) to identify factors associated and predictive of postdeployment distress and (b) to identify and explore stressors specific to female veterans' experiences once they separate from the military. Findings from the study revealed significant relationships between the predictive factors (i.e., Life Events, Support, and Family Experiences) and criterion variables (i.e., Perceived Stress and Reintegration). Results demonstrated that female veterans who identified as having been exposed to negative life events reported high levels of stress and difficulty with reintegration. Furthermore, the results indicated that female veterans with higher levels of social support demonstrated lower levels of stress. The results, implications, and limitations and the future directions of the study are further explained. The discussion highlights the importance and need for identifying stress factors and reintegration difficulty among the female veteran population.

INTRODUCTION

Statement of the Problem

- Female veterans account for approximately 9% of the veteran population in the United States and Puerto Rico. (NCVAS, 2017)
- There are over 350,000 women currently serving in the military. (NCVAS, 2017)
- The number of female veterans and service members will continue to increase; female veteran population will account for approximately 16.3% of the living population by year 2042. (NCVAS, 2017)
- Female veterans are often exposed to one or more trauma-related experiences in and out of the combat zone.
- As female veterans transition from the military, they are sometimes challenged with the reintegration process and adjusting to life.

Reintegration
- The ability to readapt to civilian life to include social and interpersonal relationships, educational, vocational, and other life roles. (Yan et al., 2013)
- Time of readjustment can elicit various thoughts and feelings, for both veterans and family members, as the respective parties learn to readapt and cope.
- The initial moment of return may be blissful, but reintegration challenges of life after deployment are sometimes minimized or ignored for females.
- The transition can last for months or years depending on the veteran and life factors, and can affect relationships, occupational performance, health, and overall quality of life. (Elnitsky et al., 2017)
- Several programs offered by the military focus exclusively on the entire male and female veteran population or the family unit.
- There is a lack of reintegration programs that focus specifically on the unique needs, concerns, and challenges female veterans face.
- Female veterans may experience culture shock similar to when they joined; feel unprepared to live as a veteran in society; be overshadowed by their male counterparts' experiences; experience adverse feelings related to new family routines and behavioral patterns or family alliances that no longer exist.

Literature
- Stressors such as economic strains, prolonged debt, and income deficits increased interpersonal violence and were common to challenges of reintegration. (Demers, 2011)
- Female veterans face higher rates of comorbidities with mental health and medical problems more than male veterans. (Koblinsky, Schroeder, & Leslie, 2017)
- Twice as likely as men to acquire posttraumatic stress disorder, even though men experience more trauma. (Resnick, Malampalli, & Carter, 2012)
- Suicide rates of female veterans increased to a greater extent, 61.4%, compared to the male veterans, 29.7%, within a thirteen-year period. (U.S. Department of Veterans Affairs, 2017)
- Women with military sexual trauma are three times more likely to screen positive for depression and alcohol abuse than female veterans without sexual assault. (Suris et al., 2007)
- Reintegration challenges that are experienced by female veterans are often overshadowed by their male counterparts' experiences. (Mattocks et al., 2012)

Purpose of the Study
1. To identify factors associated and predictive of post-deployment distress.
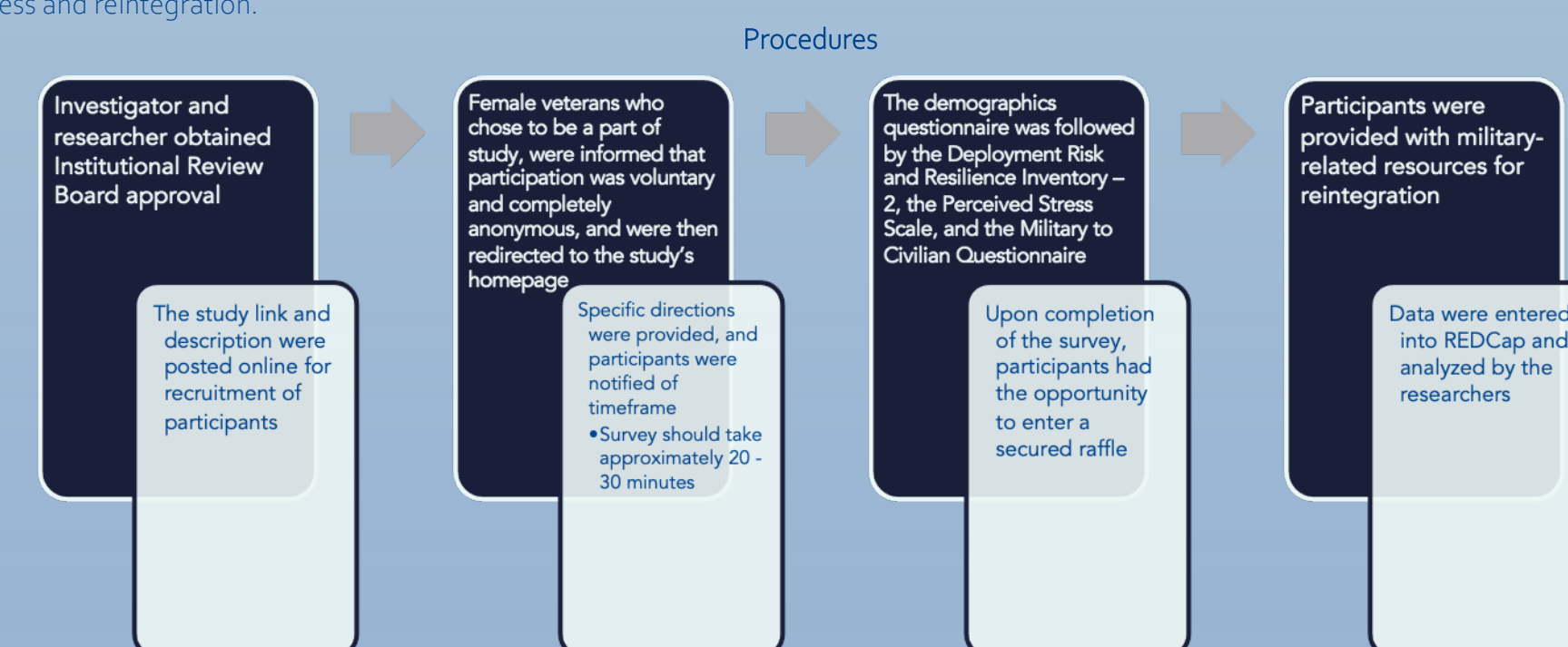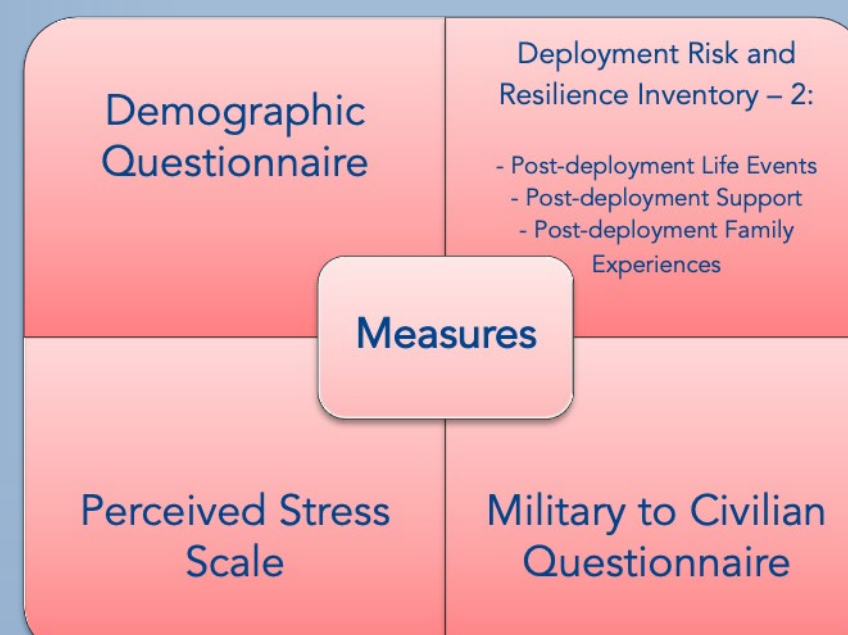2. To identify and explore stressors specific to female veterans' experiences once they separate from the military.
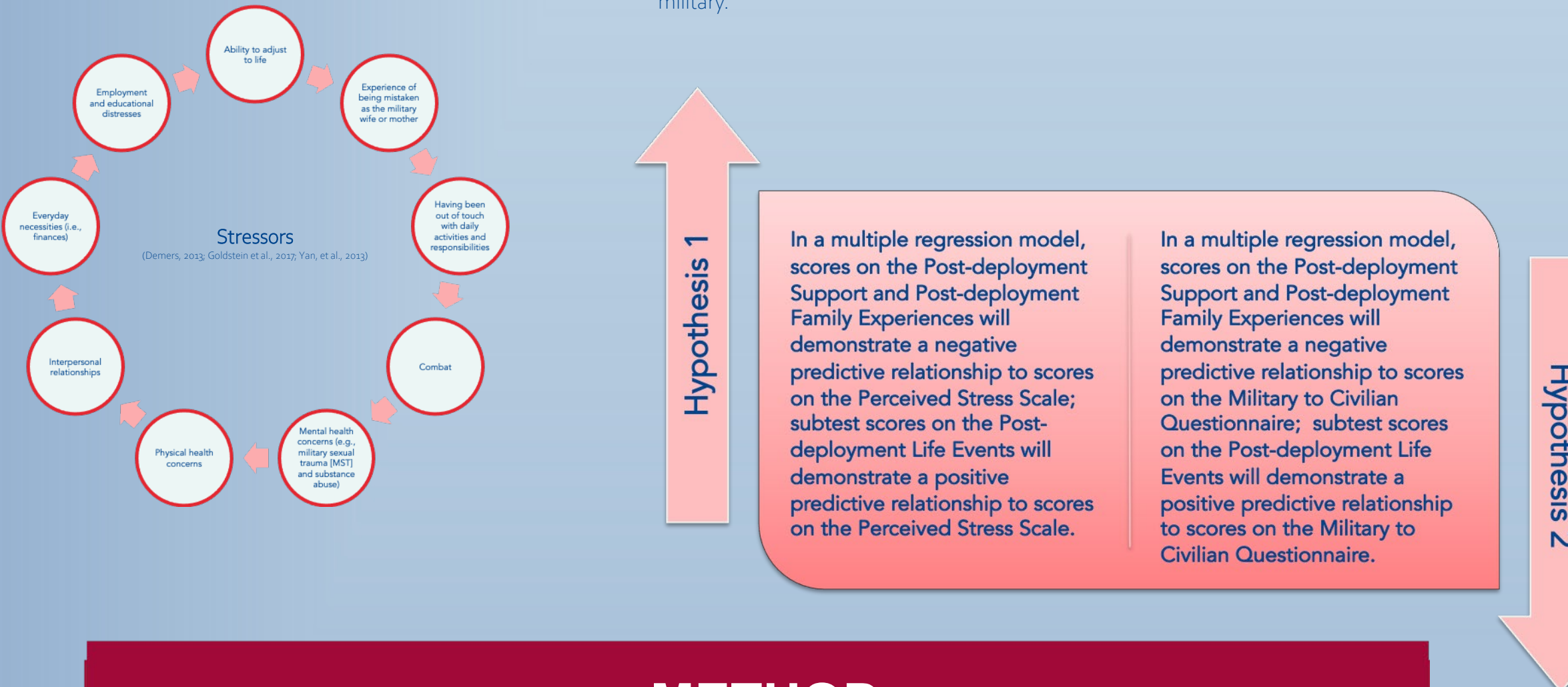
METHOD

Participants
- 69 English speaking, female veterans of the United States Armed Forces with at least one deployment to combat and/or noncombat zones and internet access.
- Separated from the military for at least three months.
- Participants were recruited through listservs, social media platforms, and other online sites.
- Compensation was not provided, but participants had a chance to win one of six $50.00 gift cards.

Research Design
- Correlational regression design was used to determine the relationship between stressors and perceived stress and reintegration.
- Completion of self-report measures and demographic questionnaire.

Procedures

Investigator and researcher obtained Institutional Review Board approval → Female veterans who chose to be a part of study, were informed that participation was voluntary and completely anonymous, and were then redirected to the study's homepage. → The demographics questionnaire was followed by the Deployment Risk and Resilience Inventory – 2, the Perceived Stress Scale, and the Military to Civilian Questionnaire → Participants were provided with military-related resources for reintegration

Demographic Questionnaire | Deployment Risk and Resilience Inventory – 2:
- Post-deployment Life Events
- Post-deployment Support
- Post-deployment Family Experiences

Measures

Perceived Stress Scale | Military to Civilian Questionnaire

Hypothesis 1
In a multiple regression model, scores on the Post-deployment Support and Post-deployment Family Experiences will demonstrate a negative predictive relationship to scores on the Perceived Stress Scale; subtest scores on the Post-deployment Life Events will demonstrate a positive predictive relationship to scores on the Perceived Stress Scale.

Hypothesis 2
In a multiple regression model, scores on the Post-deployment Support and Post-deployment Family Experiences will demonstrate a negative predictive relationship to scores on the Military to Civilian Questionnaire; subtest scores on the Post-deployment Life Events will demonstrate a positive predictive relationship to scores on the Military to Civilian Questionnaire.

RESULTS & DISCUSSION

Statistical Analysis Plan
- Multiple linear regression. Analyzed the hypotheses and examined the predictors of post-deployment stressors.
- Determined if the predictive variable explained a statistically significant amount of perceived stress and challenges with reintegration.
  - Descriptive statistics examined the sample characteristics.
- Medium effect size at the .05 level of significance at 80% power required a minimum of 107 participants.
  - Bonferroni correction of α of 0.01 was used to examine the two hypotheses.
- Data were analyzed using SPSS.

Correlations for Stress

	Perceived Stress Scale	Post-deployment Life Events	Post-deployment Support	Post-deployment Family Experiences
Perceived Stress Scale Pearson Correlation	1	.512**	-.568**	-.433**
Sig. (1-tailed)		.000	.000	.000
n	69	69	69	69
Post-deployment Life Events Pearson Correlation	.512**	1	-.506**	-.379**
Sig. (1-tailed)	.000		.000	.001
n	69	69	69	69
Post-deployment Support Pearson Correlation	-.568**	-.506**	1	.777**
Sig. (1-tailed)	.000	.000		.000
n	69	69	69	69
Post-deployment Family Experiences Pearson Correlation	-.433**	-.379**	.777**	1
Sig. (1-tailed)	.000	.000	.000	
n	69	69	69	69

Correlations for Stress

Family Experiences: Negative correlation

Healthy family connections and feeling like an active member of the family build stronger relationships, foster familial growth, and improve emotional bonds.

Positive family experiences provide an avenue to receive emotional and physical support as well as exhibit and provide affection.

Means for family cohesion improvement.

Correlations for Reintegration

	Military to Civilian Questionnaire	Post-deployment Life Events	Post-deployment Support	Post-deployment Family Experiences
Military to Civilian Questionnaire Pearson Correlation	1	.613**	-.503**	-.475**
Sig. (1-tailed)		.000	.000	.000
n	69	69	69	69
Post-deployment Life Events Pearson Correlation	.613**	1	-.506**	-.379**
Sig. (1-tailed)	.000		.000	.001
n	69	69	69	69
Post-deployment Support Pearson Correlation	-.503**	-.506**	1	.777**
Sig. (1-tailed)	.000	.000		.000
n	69	69	69	69
Post-deployment Family Experiences Pearson Correlation	-.475**	-.379**	.777**	1
Sig. (1-tailed)	.000	.001	.000	
n	69	69	69	69

Correlations for Reintegration

Support: Negative correlation
Research suggests that family can be a support system and essential to reintegration. (Maiocco & Smith, 2016)

Support is a powerful instrument that aids with the decrease of difficulty with reintegration post-deployment.

Family Experiences: Negative correlation
The combination of closeness, affection, and communication can make way for an improved reintegration.

Such factors can aid with problem-solving, provide insight and help family members understand female veterans' experiences, and foster feelings of familiarity and belongingness.

Hypothesis 1

Model	R	R²	Adjusted R²	Std. Error of Est.	R² Change	F Change	df1
1	.625ᵃ	.390	.362	7.17611	.390	13.862	3

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	37.398	4.540		8.237	.000		
	Life Events	.733	.273	.302	2.687	.009	.743	1.345
	Support	-.376	.147	-.423	-2.559	.013	.344	2.908
	Family Experiences	.007	.106	.010	.065	.948	.396	2.527

Predictors: Stress

- Life Events: Significantly positive correlation
  Aligns with previous research that suggest veterans experience external and internal challenges upon returning home from war. (Demers, 2013)

- Support: Significantly negative correlation
  Can improve the sense of belonging and increase a female veteran's willingness to seek advice when needed.
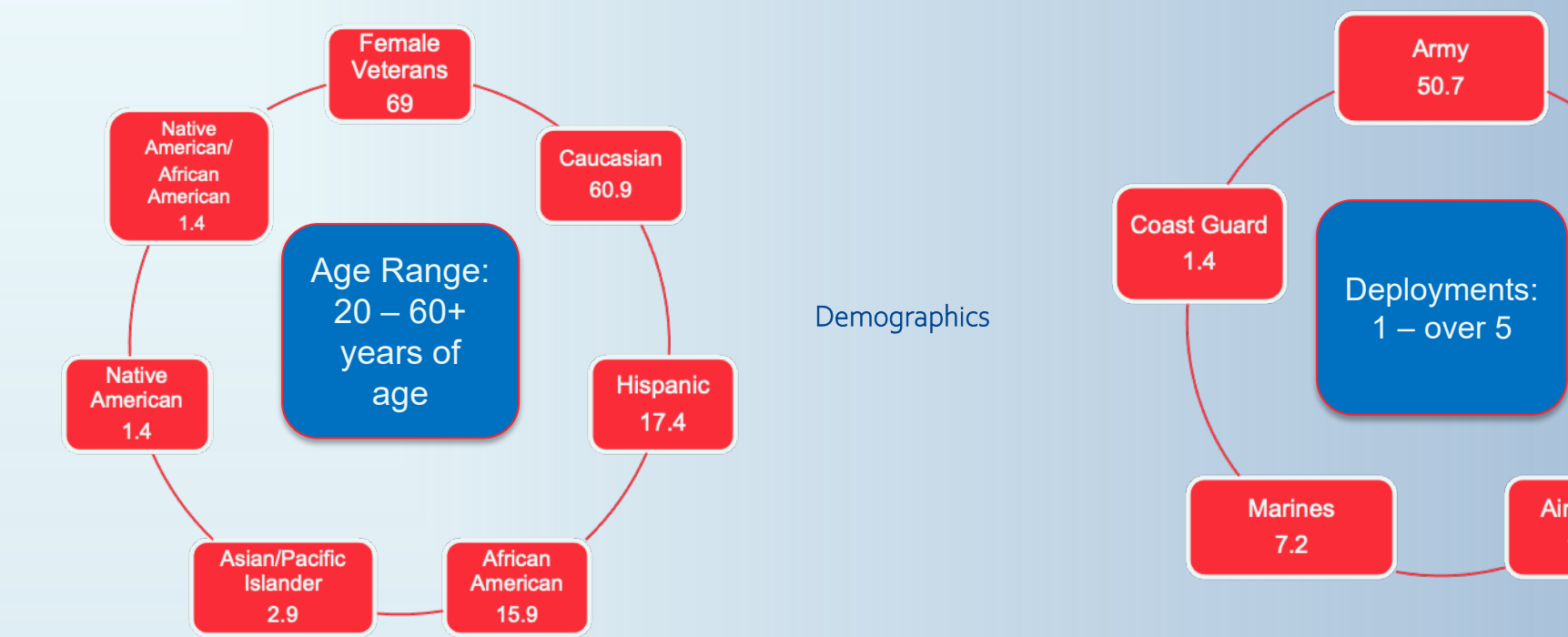
Hypothesis 2

Model	R	R²	Adjusted R²	Std. Error of Est.	R² Change	F Change	df1
1	.668ᵃ	.446	.421	.76042	.446	17.463	3

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	2.105	.481		4.375	.000		
	Life Events	.131	.029	.486	4.542	.000	.743	1.345
	Support	-.008	.016	-.077	-.491	.625	.344	2.908
	Family Experiences	-.018	.011	.230	-1.570	.121	.396	2.527

Predictors: Reintegration

- Life Events: Significantly positive correlation
  - Data do not suggest the specific timeframe of the event, but life events related and unrelated to deployment led to challenges with reintegration.
    - Unwanted sexual activity, financial problems, physical or mental health problems, etc.

RESULTS & DISCUSSION

Demographics

Female Veterans 69; Native American/African American 1.4; Caucasian 60.9; Hispanic 17.4; African American 15.9; Asian/Pacific Islander 2.9; Native American 1.4

Age Range: 20 – 60+ years of age

Deployments: 1 – over 5

Army 50.7; Navy 29; Air Force 11.6; Marines 7.2; Coast Guard 1.4

Combat Zones and Operations

- Iraq
- Afghanistan
- Arabian Sea
- Kuwait
- Persian Gulf
- Ramadi
- Saudi Arabia
- Southeast Asia
- Turkey
- Africa
- Baghdad
- Dubai
- Bosnia
- South Korea
- Red Sea
- Black Sea
- Operation Enduring Freedom (OEF)
- Operation Iraqi Freedom (OIF)
- Operation New Dawn (OND)
- Operation Inherent Resolve (OIR)
- Gulf War
- Desert Shield
- Desert Storm
- Operation Southern Watch
- Was not in combat zone

Implications
- Education.
  Military, mental health providers, and veterans and their families.
- Prevention
  - Identify post-deployment stressors commonly seen among female veterans.
    - Identify predictive factors of post-deployment stressors.
- Treatment
  - Female-specific program development.
    - Mental health services.

Limitations
- Lack of exploration regarding the different types of military separation.
  - Self-report questionnaires.
  - Number of participants.
- Lack of assessment of pre-deployment preparation.
  - Lack of examination of each military branch.
- Training and deployment differences amongst military branches.

Future Research
- Examination of:
  - Expansion of study.
- Self-care practices and personality differences.
- Branch-specific stressors and reintegration process.
  - Coping strategies.

SUMMARY

- Today, more women are serving in the military than ever before.
- The number of women serving are expected to increase over the years.
- Female service members are serving in more combat-related roles.
- Even though female service members are exposed to less combat, they experience higher rates of trauma-related disorders compared to their male counterparts.
- Female veterans may exhibit several unique stressors and difficulties related to reintegration post-deployment.
- Understanding during deployment and post-deployment factors related to adjustment difficulties and stress are important.
  - Such information may prove useful in designing female friendly reintegration programs that meet the needs of this population.

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