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Examining Adaptive Structures of Military Families in Relation to Deployment

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Examining Adaptive Structures of Military Families in Relation to Deployment

by

Gabriel Reed

Presented to the Faculty of the
Graduate School of Clinical Psychology

George Fox University

in partial fulfillment

of the requirements for the degree of

Doctor of Psychology

in Clinical Psychology

Newberg, Oregon

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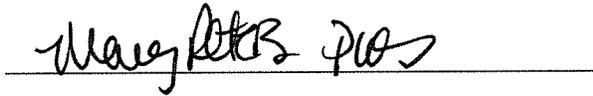
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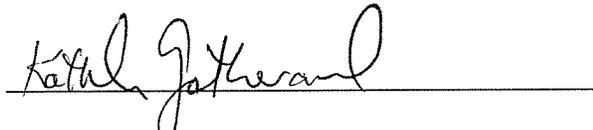
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Examining Adaptive Structures of Military Families in Relation to Deployment

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Abstract

Military families experience stressors unique to their occupation which strongly influence family structure. Deployment is one of the most impactful and unique experiences that a majority of current military families have experienced as it influences familial stability and structures. Previous research has found that when compared to civilian American families, military families tend to identify as more rigid than flexible while still maintaining good familial satisfaction reports. By examining the correlation between various family structure domains of military families (cohesion, flexibility, rigidity, deployment history, and familial satisfaction) mental health workers may better assist these families in establishing strategies to endure immediate and ensuing stressors of deployment. A participant pool ($n = 104$) of military members, veterans, partners, and their children completed a demographic questionnaire including deployment history and the FACES IV self-assessment tool authored by David Olson (2011). The FACES IV identifies domains of cohesion and flexibility and their relationships with disengagement, enmeshment, rigidity, and chaos. It was hypothesized that levels of heightened rigidity may serve

as a protective factor to the familial stressors of military deployment. Overall, the sample showed significantly heightened rigidity and enmeshment, but maintained balanced levels of cohesion and flexibility. No relationship was found between deployment history and any of the family structure domains, though levels of enmeshment tended to decrease with more deployments. Consistent with current research, this study found family cohesion was the strongest predictor of both balanced and unbalanced family functioning scales within this population.

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Chapter 1

Introduction

Family Functioning

Each family consists of individuals with unique attributes, values, and beliefs. However, the family as a whole often fosters common traits that are indicative of their shared life experiences. Using the Circumplex model, first established by Olson, Sprenkle, and Lewis in 1979 and revised in 2011, family characteristics are measured on perpendicular continuums consisting of cohesion and flexibility. The theory behind the Circumplex Model of Marital and Family Systems suggests that balanced levels of cohesion and flexibility significantly correlate with healthy or satisfied families and any form of unbalance in the aforementioned domains would often result in familial dissatisfaction. In order to describe deficits in familial functioning, four unbalanced scales are used including: disengagement, enmeshment, rigidity, and chaos.

While cohesion and flexibility are both balanced scales within the model, the theory of Circumplex family functioning relies heavily on cohesion as a predictor of every other domain of family functioning. Olson and Gorall define family cohesion as “the emotional bonding that couple and family members have toward one another” and that it “focuses on how systems balance separateness versus togetherness (2003, p. 516). Cohesion relates to the unbalanced scales of enmeshed (extremely high cohesion) and disengagement (extremely low cohesion); showing that typically a balanced level of cohesion is ideal for family functioning. Likewise, flexibility typically corresponds with the unbalanced scales of rigid (extremely low flexibility)

and chaotic (overly flexible). Per the model, maintaining familial stability amidst change is dependent upon a healthy level of flexibility, which is related to leadership, roles, and rules (Olson & Gorall, 2003). In short, too much or too little family cohesion or flexibility is to be avoided in favor of a balanced amount of each factor, which tends to correlate with families' perceived satisfaction levels (Thomas & Olson, 1993, 1994).

Stressors of Military Deployment

Military life can come with both unique benefits and stressors for both the soldiers and the family. Perhaps the most significant of these stressors on all family members is that of deployment. The United States has been involved in Iraq and Afghanistan for 16 years which is the longest military engagement in the country's history. As of 2011, the combined efforts of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) have resulted in the deployment of over 2.2 million military personnel with nearly half of those individuals being parents of nearly 700,000 affected children (Rossiter, 2016; Verdelli, et al., 2011). The OEF/OIF conflicts as of 2010 have also seen an increase in soldiers experiencing both multiple and lengthened deployments, with 48% of military parents being deployed at least twice (Department of Defense, 2010). Though the number of soldiers deploying for OEF/OIF has decreased in recent years, deployment is still a salient factor for military families today (Knobloch, McAninch, Abendschein, Ebata, & McGlaughlin, 2016). The prevalence of this familial disruption has justly warranted an abundance of research on the experience of the individual soldier, military spouses/partners, and the soldier's children. Much of this research has included the adverse effects of combat trauma experienced by the soldier, which can have residual side effects on the family. Combat trauma is a well-researched risk factor shown to impact familial

satisfaction; however, additional factors affect the functioning of military families. Specifically, relational cohesion between spouses has been identified as a protective factor reducing adverse mental health risks in service members returning from deployment (Spera, 2009).

Stress associated with military deployment has been the focus of a significant amount of research in the field of psychology, particularly as it relates to the residual effects of post-traumatic stress disorder. Soldiers returning from combat deployments to Iraq and Afghanistan are at an increased risk for depression, generalized anxiety, and posttraumatic stress disorder and these risks have been shown to adversely impact partner relationships (Hoge, et al., 2008; Taft, Watkins, Stafford, Street, & Monson, 2011). However, stressors of the deployed soldier extend beyond combat and warfare environment exposure. Some of these additional stressors to the soldier include: lack of social support both at home and within their unit, sexual harassment and assault, general harassment, along with family disruptions and related concerns (La Bash, Vogt, King, & King, 2009).

The stressors for military spouses or partners are varied, but in nearly all cases consisted of loneliness and concern for the deployed soldiers' safety (Warner, Appenzeller, Warner, & Grieger, 2009). Throughout deployment, the family is both isolated from the soldier for an extended period of time and provided no guarantee of their loved one's safe return. Dimiceli, Steinhardt, and Smith (2009) found that when asked to examine the past five years, 85% of military spouses reported deployment as being the single most stressful situation they had experienced. This stress has significant side effects on the whole family as depression and anxiety symptoms are more prominent in military spouses during deployment than at any other time (Warner, et al., 2009; Verdelli, et al., 2011). Furthermore, military spouses and partners

experience additional stressors related to raising their children in the deployed soldier's absence (Warner et al, 2009) or the possibility of the soldier returning with PTSD related symptoms (Lambert, Engh, Hasbun, & Holzer, 2012). In some military partnerships, the effects of deployment on the spousal relationship may also extend beyond the separation period of deployment and into the ensuing reunion or reintegration of the soldier (Knobloch et al., 2016).

However, the impact of military deployment exceeds the boundaries of intimate partnership, encompassing children as well. Military children have experienced the effects of parental deployment at an increased rate since the attacks of September 11th. Though military children have been shown to be quite resilient (Park, 2011), they are still often adversely impacted by multiple stressors during their parent's deployment. Knobloch, Pusateri, Ebata, and McGlaughlin (2015) used a relational turbulence model to examine the experience of military children during parental deployment. Children in their qualitative study reported an increase in responsibilities, shifts in daily routine, witnessing their at-home parent take on more responsibility, missing family traditions, emotional turmoil, and viewing their family as incomplete. In addition, because deployment increases the soldiers' risk of PTSD (Hoge et al, 2008), children in military families are often adversely impacted when their parent experiences related symptoms in their presence (Price, 2015). In order to understand the effects of deployment on the family system, researchers need to develop methods to assess the whole system rather than the discrete experiences of the soldier, partner, and children. Deployment is likely to have an influence on each family member and by examining the family more broadly as a unit, potential risk and protective factors of family functioning can be identified concisely and effectively.

FACES-IV

The Family Adaptability and Cohesion Evaluation Scale (FACES) IV, was developed to examine family flexibility and family cohesion. The assessment borrows from the Circumplex Model of Marital and Family Systems, which originally used the two primary dimensions of adaptability (later changed to flexibility) and cohesion to describe healthy relationship patterns. In measuring cohesion, the family structure can be categorized as disengaged, separated, connected, and enmeshed; while the adaptability/flexibility domain aims to categorize the family as chaotic, flexible, structured, and rigid (Maynard & Olson, 1987). The FACES-IV is the most recent version of the assessment tool and has been found to be a valid measure of family flexibility and cohesion through three decades of published studies, the most recent of which are included in the 2011 Manual (Olson). In the most recent version, the balanced scales are identified as cohesion and flexibility; while the unbalanced scales are labeled disengaged, enmeshed, rigid, and chaotic. In looking at the self-rated family structures and the respective correlation with perceived family satisfaction, the results of the FACES IV can describe the level of functioning of the whole system.

By using the FACES-IV in a population of military families one can examine the unique nature of family structures. One unique factor in military families found by Oshri, Lucier-Greer, O'Neal, Arnold, and Ford (2015) is the significantly higher levels of rigidity amongst military families. A significant proportion of families in this study were categorized as rigidly-cohesive with relatively high levels of familial satisfaction. While high levels of rigidity do not typically correlate with family satisfaction in a non-military specific population, Oshri et al. found rigidity

and satisfaction to have a significant and positively correlated relationship for both service members and their spouses.

The positive impact of rigidity may reflect the structured nature of the military, which provides stability in the midst of the instability of deployment, trainings, frequent moves, and other transient factors expected by military families. This study hypothesized that heightened structure and stability in a family experiencing multiple transitions and the corresponding stressors of deployment would correlate with satisfaction. Furthermore, heightened rigidity was hypothesized to be a protective factor for military families that frequently undergo changes in structure and environment the most significant of which is deployment (Dimiceli et al., 2009, Taft et al., 2011).

Purpose

This study aimed to build upon existing literature by examining the relationship between the number, length, and time since last deployment and the domains of family functioning measured by the FACES IV that influence satisfaction. Although military families face many significant stressors, the effects of deployment may have the greatest impact on the family (Dimiceli et al., 2009). By correlating FACES IV scores with deployment history the results showed if, and how, the cohesiveness and flexibility of the family structure correlated with family satisfaction. By identifying cohesion as a key component of familial functioning and satisfaction, along with identifying significant norm differences between a civilian and military population, this research can influence mental health professionals as they assist the family by focusing on developing familial cohesion in preparation for deployment, coping throughout deployment, and during the reintegration of the deployed soldier.

Hypotheses

Three hypotheses were examined when measuring participants' FACES-IV results, demographic, and deployment data.

H1: It was hypothesized the experience of deployment would negatively correlate with perceived family satisfaction. This hypothesis examined multiple deployment variables: families having experienced deployment compared with military families not having experienced deployment, number of deployments, total number of months deployed, and how recently deployment occurred. This hypothesis reflects the extensive research highlighting adverse stressors associated with deployment on the family (Spera, 2009; Warner et al., 2009, Verdeli et al., 2011, Knobloch et al., 2015; Knobloch et al., 2016) and the tendency for significant familial stressors to negatively impact satisfaction within the Circumplex model of family functioning as the family often alters both cohesion and flexibility levels in response to stress (Olson & Gorall, 2003).

H2: It was hypothesized there would be significant and positive correlations between rigidity and cohesion and flexibility for military families. The purpose of this hypothesis was to replicate the results found in a previous study on military families that suggested heightened rigidity might be a protective factor unique to military culture and contrary to civilian norms, this unbalanced scale of rigidity would correlate positively with both balanced scales (Oshri et al., 2015).

H3A: A two-fold hypothesis was proposed that first presumed military families who have experienced more deployments would show higher levels of rigidity.

H3B: Secondly, it was hypothesized that higher rigidity scores would not negatively correlate with family satisfaction. This hypothesis assumed heightened structure, leadership, and rules would be an adaptive response to the stressors of deployment on the family.

Chapter 2

Methods

Participants

The current study analyzed responses on the FACES IV from currently active and veteran service members and their families. Participants were sought by posting a link to an electronic survey (using the program Survey Monkey) to a variety of military-specific Facebook groups inviting military families to participate and/or to refer peers that met the criteria of current or prior military service of one or more parent within the family system. Paper surveys were distributed to a unit of the Oregon Army National Guard and email communication was used to send the Survey Monkey link for family member completion. Service members, partners, and children aged twelve or above were asked to complete an informed consent, followed by military and general demographic surveys detailed in appendix A and B, and the 62 item FACES IV assessment as shown in appendix C. The online survey was completed by 91 participants with 16 completing the paper version. Specific participant demographics are reported in Chapter 3. This study was approved by the internal review board at George Fox University.

Procedure

Data were collected through Survey Monkey and paper surveys which were distributed in person. The family was minimally incentivized with a free Redbox movie rental (valued at \$1 each) if at least two family members completed the survey and for each additional completed survey by family members. Initial online outreach consisted of multiple Facebook postings to groups for military spouses. Paper surveys were distributed voluntarily to members of an Oregon

National Guard unit during their drill weekend and their families were contacted via a provided email address. Participants were then encouraged to reach out to their peers in military families who may be interested in receiving the Redbox incentive or were otherwise invested in participation. Participants were categorized by familial role of service member parent, non-service member parent, and child. Data were analyzed using SPSS and VassarStats statistical programs.

Measures

The assessment included two sections: demographics/history and the Family Adaptability and Cohesion Evaluation Scale IV (FACES IV). The demographic and history section provided necessary information about deployments and other service related criteria that were used in the statistical analysis. Families were given the option to decline answering any of the demographic questions detailed in (see Appendix A for all measures). The FACES IV has been nationally normed with each scale being found reliable and valid with Cronbach Alphas between .83 and .93 (Olson & Gorall, 2003). Olson's 2011 study examined a nonclinical population of families that were designated as either "problem" or "non-problem" families as a result of their balanced or imbalanced scales. The results were also correlated with three other family self-assessment measures. The study concluded that the FACES IV had strong validity when compared to the three other measures, with strong alpha inter-reliability of the six scales (Olson, 2011).

Chapter 3

Results

Group Characteristics

The surveys were predominantly distributed online via survey monkey through various military social media groups and encouraged participant referrals. 98 participants began the survey and 91 completed it. Printed versions of the survey were also distributed to an Oregon National Guard unit, which resulted in an additional 16 completed responses. Three outliers were removed so that only military families from the OIF/OEF era were included in the sample. Thus, a total of 104 respondents completed the surveys. Participants' demographic information for this sample can be found in Table 1.

Table 1

Descriptive Data for the Service Member in Each Family

	Mean	SD	N
Number of Deployments	2.14	1.54	104
Total Months Deployed	21.00	17.34	104
Years since Last Deployment	4.89	3.69	88
Rank (1-20)*	12.46	6.22	102
Years of Service	13.89	7.89	104

Note. *Enlisted (1-9), Warrant Officer (10-14), Officer (15-20)

The demographic data specific to the military service of their focal family members are shown in Table 2. The participant families represented multiple branches of the military, and many had served in multiple branches, but the majority served in the Army (78.8%), Army National Guard (30.8%), or Army Reserve (12.5%). A higher percentage of respondents with service in the Army was expected due to the available participant pool, as described in chapter two. Other represented branches of the United States military included the Air Force (4.8%), Navy (3.8%), and Marine Corps (3.8%). As previously mentioned, multiple families had served in more than one branch of service leading to significant crossover between branches and resulted in collapsing the data for the purpose of this study. Data were also collapsed regarding the service member's rank as no significant difference was found between enlisted soldiers ($n = 41$) and warrant officers/officers ($n = 61$) with any of the dependent variables measured. Additionally, 84.6% of families had experienced at least one deployment of four months or longer.

A series of one-way ANOVAs were run to determine differences between currently serving military families ($n = 93$) and veteran families ($n = 11$) for each of the FACES IV subscales. Results for these ANOVAs the subscales along with communication and satisfaction revealed the following: cohesion ($F(1, 102) = .14, p = .71$), flexibility ($F(1, 102) = 1.08, p = .30$), disengaged ($F(1, 102) = .03, p = .87$), enmeshed ($F(1, 102) = 2.32, p = .13$), rigid ($F(1, 102) = .25, p = .62$), chaotic ($F(1, 102) = .05, p = .82$), communication ($F(1, 102) = .44, p = .51$), and satisfaction ($F(1, 102) = 1.98, p = .16$). No significant differences were found; therefore, data were collapsed across groups.

Table 2

Demographic Summary

Characteristics		<i>N</i>	%
Gender	Male	30	31.3
	Female	66	68.8
Ethnicity	Asian	1	1.1
	African American/Black	1	1.1
	Latino/a	7	7.4
	White/European Heritage	83	87.4
	Other	3	3.2
Family Role	Service Member	39	40.6
	Partner/Spouse	46	47.9
	Child	11	11.5
Age		4	4.2
	12-17	23	24.0
	18-29	34	35.4
	30-39	28	29.2
	40-49	7	7.3
	50+		
Relationship Status	Single, never married	6	6.3
	Single, divorced	1	1.0
	Married, first marriage	68	70.8
	Married, not first marriage	17	17.7
	Partnered	4	4.2

A series of one-way ANOVAs analyzed whether family role (service member, partner, and child) had an effect on each of the eight subscales of the FACES IV. Family role ANOVA results included: cohesion ($F(4, 91) = .67, p = .62$), flexibility ($F(4, 91) = .74, p = .57$), disengaged ($F(4, 91) = 1.17, p = .33$), enmeshed ($F(4, 91) = .45, p = .77$), rigid ($F(4, 91) = .67, p = .62$), chaotic ($F(4, 91) = .43, p = .79$), communication ($F(4, 91) = .20, p = .94$), and satisfaction ($F(4, 91) = .27, p = .90$). There was not a significant difference in the mean FACES IV subscale scores by family role, so data were collapsed across role before hypothesis testing. The means,

standard deviations, and FACES IV percentile scores for the participants can be seen in Table 3. The six scales are broken into categories of balanced and unbalanced per the Circumplex model of family functioning (Olson, 2011). Disengaged and enmeshed are unbalanced scales of cohesion with rigid and chaotic unbalanced scales of flexibility. These results are also presented graphically in Figure 1, using the format provided by the FACES IV administration manual (Olson, et al., 2006).

Table 3

FACES IV Descriptive Statistics by Scale

		Mean	Std. Dev.	FACES IV Percentile*
Balanced Scales	Cohesion	29.76	3.93	65.32
	Flexibility	21.13	4.75	55.43
Unbalanced Scales	Disengaged	9.78	2.82	37.80
	Enmeshed	10.94	3.87	68.46
	Rigid	16.83	5.10	60.64
	Chaotic	10.13	3.29	41.04
Communication		40.08	7.27	80
Satisfaction		38.70	7.81	75

Note. *Approximate percentile scores calculated with norms from the FACES IV Package: Administration Manual (Olson, Gorall, & Tiesel, 2006); n=104.

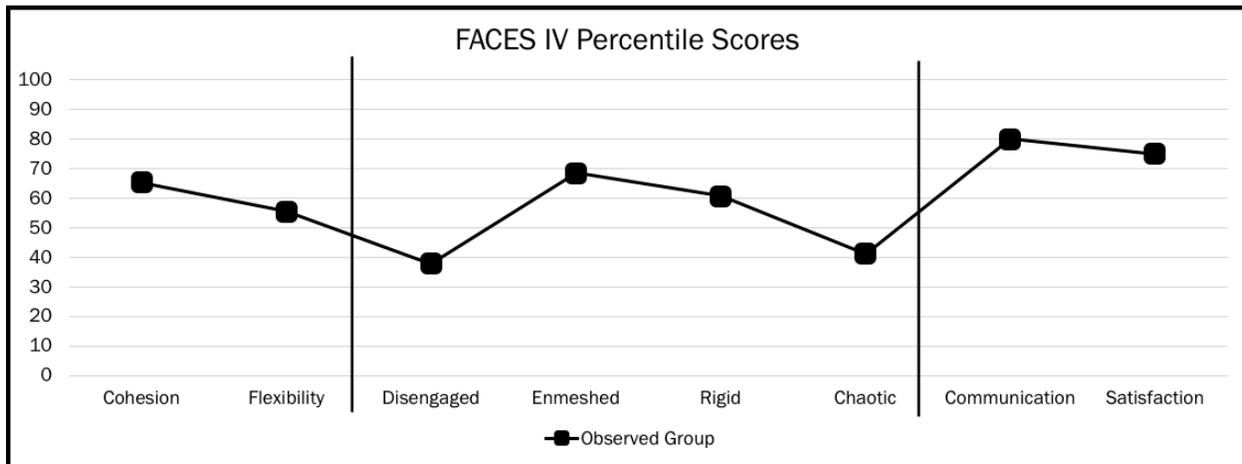


Figure 1. FACES IV Subscale Percentile Scores for the Participants in this Study.

Hypothesis Testing

The first hypothesis examined the relationship between family satisfaction and deployment history, predicting that satisfaction would be lower in military families that have experienced deployment. Based on previous research, it was hypothesized that results would show: 1a) a lower mean satisfaction in families experiencing deployment compared to military families with no deployments, 1b) a negative correlation between number of deployments and satisfaction, 1c) a negative correlation between total months deployed and satisfaction, and 1d) a positive correlation between years since their last deployment and satisfaction.

To measure hypothesis 1a examining satisfaction, the population was split into two groups: families experiencing at least one deployment ($M = 38.25$, $SD = 8.0$, $n = 88$) and families that had not experienced a deployment ($M = 41.19$, $SD = 6.33$, $n = 16$). A one-way ANOVA was conducted to detect differences in satisfaction between the two groups and results did not indicate a significant difference ($F(1, 102) = 1.93$, $p = .17$), therefore hypothesis 1a was not supported.

To measure hypothesis 1b, 1c, and 1d, a Pearson's product-moment correlation was conducted to examine whether a negative correlation existed between deployment history and perceived family satisfaction. Results did not indicate a significant correlation between satisfaction and any of the three deployment variables (see Table 4). In summary, the data collected from this sample failed to support any of the four components of hypothesis one.

Table 4

Correlation of Satisfaction and Deployment Variables

Variable	Satisfaction	<i>p</i> (two-tailed)	<i>N</i>
Number of Deployments	$r = -.11$.27	104
Total Months Deployed	$r = -.09$.38	104
Years Since Last Deployment	$r = -.11$.31	88

The second hypothesis examined the FACES IV subscale of rigidity in relation to cohesion and flexibility. This hypothesis had two components, both predicting positive correlations between 2a) rigidity and cohesion and 2b) rigidity and flexibility. A Pearson's product-moment correlation was run to measure both components of hypothesis two. The analysis failed to show statistically significant correlations in both relationships: 2a) rigidity and cohesion ($r = -.04, p = .72$) and 2b) rigidity and flexibility ($r = -.08, p = .43$). These correlations are so small they indicate "no relationship" according to Cohen (1992). Therefore, the results of the correlation analysis lead us to reject hypothesis two and do not replicate the results found by Oshri et al. (2015).

The final hypothesis was two-fold: first, predicting that families experiencing more deployments would have higher levels of rigidity (3a) and second, that higher rigidity would not negatively correlate with family satisfaction (3b). Pearson's product moment correlations were used for both components of hypothesis three. Analysis revealed that a small, not statistically significant correlation was present between the number of family deployments experienced and levels of rigidity ($r = .14, p = .17$), therefore hypothesis 3a is not supported. Additionally, a small, negative correlation was present between levels of rigidity and satisfaction ($r = -.19, p = .049$) resulting in a rejection of hypothesis 3b.

Additional Analysis

In addition to the three hypotheses examined above, several additional analyses were conducted. Using the same groups from hypothesis one (families experiencing vs. not experiencing deployments), a series of one-way ANOVAS were run examining group differences with each subscale of the FACES IV. Of the eight subscales examined, only enmeshment showed a significant difference between families that *have* ($M = 10.50, SD = 3.65, n = 88$) versus *have not* ($M = 13.38, SD = 4.23, n = 16$) experienced deployments ($F(1,102) = 8.0, p < .01$). A Pearson product-moment correlation matrix with enmeshment and various military service deployment variables was run to determine directional correlations and significance. Table 5 presents an expanded matrix which includes all FACES IV subscales. Consistent with the results of the ANOVA, only the enmeshment scale of the FACES IV showed a significant negative correlation with three of the deployment variables (number and total months of deployment and years of service). As expected, the deployment variables were highly correlated with one another, in addition to their respective correlation with the enmeshment scale (see Table

6). Although expected, the high correlations between years of military service and the number of deployments ($r=.65, p< 0.01$) along with the total months deployed ($r= .62, p<0.01$) suggests that other factors related to military service outside of deployment may also influence the results of the FACES IV assessment.

Table 5

Correlations of Deployment Variables with FACES IV Subscales

	<i>N</i>	1	2	3	4	5	6	7	8
Number of Deployments	104	-.04	.09	.06	-.26**	.14	-.20*	-.11	-.11
Total Months Deployed	104	.01	.12	.09	-.20*	.15	.16	-.11	-.09
Years Since Last Deployment	88	-.09	-.01	.16	-.03	.13	.18	-.17	-.11
Rank (1-20)	102	.06	-.03	.01	-.08	.08	-.16	-.06	-.04
Years of Service	104	-.14	-.12	.16	-.27**	.09	-.15	-.23*	-.20*

Note. 1 = Cohesion, 2 = Flexibility, 3 = Disengagement, 4 = Enmeshed, 5 = Rigid, 6 = Chaotic, 7 = Communication, 8 = Satisfaction; * $p < 0.05$, ** $p < 0.01$.

Table 6

Correlations of Deployment Variables

Variable	1	2	3	4	5
1 Number of Deployments	--				
2 Total Months Deployed	.92**	--			
3 Years since Last Deployment	.15	.19	--		
4 Rank (1-20)	.30**	.21*	.13	--	
5 Years of Service	.65**	.62**	.39**	.45**	--

Note. See Table 2 for descriptive statistics; * $p < 0.05$, ** $p < 0.01$.

The final analysis was to measure the relationship between FACES IV subscales along with communication and satisfaction in the observed military sample and compare them to those correlations within a civilian population. First, Pearson's product-moment correlations were run to determine correlations among the FACES IV subscales for the military population (see Table 7).

Table 7

Participant Military Population Correlations of FACES-IV Scales (n = 104)

Variable	1	2	3	4	5	6	7	8
1 Cohesion	--							
2 Flexibility	.55**	--						
3 Disengaged	-.49**	-.29**	--					
4 Enmeshed	-.18	-.09	.21	--				
5 Rigid	-.04	-.08	.06	.30**	--			
6 Chaotic	-.05	.11	.41**	.39**	.02	--		
7 Communication	.70**	.39**	-.47**	-.24*	-.23*	-.21*	--	
8 Satisfaction	.66**	.39**	-.49**	-.16	-.19*	-.28**	.82**	--

Notes. Two-tailed significance * $p < 0.05$, ** $p < 0.01$.

Table 8 was adapted from a study by Olson (2011) and shows these same correlations among the FACES IV subscales for the general U.S. population. Olson's study did not measure correlations with communication and satisfaction and did not identify significance of less than 0.05.

Table 8

Correlations between FACES IV Scales for a Normed Non-Military Sample (n = 469)

Variable	1	2	3	4	5	6
1 Cohesion	.89					
2 Flexibility	.60*	.84				
3 Disengaged	-.80*	-.50*	.87			
4 Enmeshed	-.15	.01	.27*	.77		
5 Rigid	.05	-.10	-.20	.34*	.82	
6 Chaotic	-.53*	-.31	.60*	.36*	.12	.86

Notes. Two-tailed significance * $p < 0.01$; alpha reliability values are in bold; (Olson, 2011, FACES IV, p. 69).

In order to assess the difference between these two independent correlation matrices (see Tables 7 and 8), a series of Fisher r-to-z transformations were run via VassarStats and are displayed in Table 9. This statistic takes r correlations of two constant variables from two sample groups and converts them to a z score to determine significant differences in correlation strength (Fisher, 1915). While an expected negative correlation was shown between cohesion and disengagement, the strength of that correlation in this study ($r = -.49$) was significantly weaker than the non-military sample ($r = -.80$) represented in the Fisher r-to-z transformation ($z = 5.13$). Similar correlation strength differences are represented in Table 9 and suggest the relationship between balanced and unbalanced scales may differ within a military population.

Table 9

Fisher r-to-z Transformation Comparing Participant and Civilian Samples

Variable	1	2	3	4	5	6
1 Cohesion	--					
2 Flexibility	-.68	--				
3 Disengaged	5.13**	2.28*	--			
4 Enmeshed	-.28	-.91	-.58	--		
5 Rigid	-.82	.18	2.39*	-.41	--	
6 Chaotic	4.92**	3.93**	-2.35*	.32	-.92	--

Note. Two-tailed significance * $p < 0.05$, ** $p < 0.01$.

Chapter 4

Discussion

The FACES IV is unique in its measurement of satisfaction as it incorporates overall family functioning including each of the members rather than a dyadic marital satisfaction model (Olson & Gorall, 2003). Hypothesis one predicted families would have lower levels of satisfaction if they had experienced more deployments. This prediction was based on the substantial research pointing to deployment as one of the most significant stressors for military families along with familial stressors being strong predictors for lower satisfaction levels in the Circumplex model of family functioning. However, multiple analysis examined four different deployment variables and in each case this presumption of decreased familial satisfaction was not supported by the data analyses.

Furthermore, although 84.6% of the participants experienced a deployment either directly, as a partner, or as a child, the sample as a whole scored in the 75th percentile for satisfaction via the FACES IV scoring criteria (see Table 3 & Figure 1; Olson, 2006). One possible explanation for this lack of relationship is the mediator role cohesion plays in predicting satisfaction. In their review of the 25 years of research on the FACES IV, Olson & Gorall highlight the close relationship between satisfaction and cohesion, noting “the items in the scale are specifically designed to tap individuals' satisfaction with levels of cohesion.” Therefore, if the number of deployments didn't correlate with cohesion (Table 5, $r = .01$, n.s), we wouldn't expect number of deployments to impact satisfaction. Supporting the potential explanation for

the mediating role of cohesion in satisfaction, this study showed a large and significant relationship ($r = .66, p < .001$) between cohesion and satisfaction (See Table 7).

The second hypothesis served to attempt to replicate the findings of the Oshri et al. study (2015) in which military service members and partners were found to have a positive correlation between rigidity (indicating a lack of balance in the family) and cohesion and flexibility (balanced scales). In their study, the positive correlation between the unbalanced scale of rigidity with the two balanced scales of cohesion and flexibility in the military population differed significantly from normed civilian populations. Our results (see Table 3) showed that although the overall sample had slightly heightened rigidity and cohesion scales (60.64 and 65.32 percentiles respectively), the scales were not correlated ($r = -.04$). Similarly, the participant responses didn't show any relationship between rigidity and flexibility ($r = -.08$). Both factors of hypothesis two were rejected and did not replicate the findings from the Oshri et al. sample (2015). Rather, in regard to rigidity correlations, this sample appeared to be more in line with the validation study of the FACES IV in a non-military specific population (see Table 9) (Olson, 2011).

Hypothesis 3 was originally intended to build upon the findings of hypothesis 2 related to rigidity, satisfaction, and deployments. The presumption was that families may become more rigid as a protective factor as they experience more deployments and that rigidity might correlate with higher satisfaction levels. The overall sample did show heightened rigidity and satisfaction subscales (see Table 3), however no significant positive relationship existed between deployment variables and rigidity or rigidity and satisfaction. Contrary to expectations there was a small, negative relationship between rigidity and satisfaction; therefore, both factors of hypothesis three

were rejected. Once again, this hypothesis was influenced by implications identified in the Oshri et al. study (2015) hypothesizing that rigidity could be a protective factor for military families and this sample, while overall identifying as both rigid and satisfied, did not show a positive relationship between them.

In relation to hypotheses two and three, there are many potential explanations for why our results differed from the results of the 2015 Oshri et al. sample, including differences between the populations and data collection. The combination of length of service, rank and lack of diversity of the participants in this study may contribute to a “normalization” of military life such that some family patterns in our military sample may approximate a non-military population.

This study also included online surveys, relied on voluntary referrals, and ran correlations on the collective data rather than individual families. The reliance of referrals and minimal monetary incentives may have played the most significant role in these discrepancies as it likely contributed to a sub-group with the unique demographics described above within the overall military population. In particular, “healthy” families as identified by the Circumplex model, may have been more likely to volunteer their time to complete this survey online than an “unhealthy” family, though participants in the Oshri et al. (2015) study were voluntary as well.

Similar to other studies examining military families, this sample endorsed rigidity at a much higher rate than the general population with no statistical influence on satisfaction levels. Convergent with the Circumplex model of family functioning, the sample demonstrated a strong relationship between family communication and satisfaction levels (see Table 7). Consistent with the Circumplex model, each of the balanced and unbalanced scales directionally correlated with

family communication and five of the six scales correlated significantly with satisfaction (Olson et al., 2006). As a result, we can confirm that the FACES IV as a family assessment tool has utility for use with a military population due to directional correlation of balanced and unbalanced scales. However, results may best be served to be interpreted using military norms which typically reflect heightened cohesion and rigidity across the population.

Supplemental analysis explored the unique relationship the cohesion scale had with the unbalanced scales in our sample. As seen in Table 9, significant correlation strength differences were present between samples and the relationship between the balanced and multiple unbalanced scales. In the normed, non-military specific sample, results showed a strong negative relationship ($r = -.80, p < .01$) between cohesion and disengagement, indicating that as cohesion increased, disengagement showed a corresponding decrease. In contrast, our sample only showed a medium effect ($r = -.49, p < .001$). Similarly, in the normed, non-military sample, as cohesion increased, the chaotic scale decreased ($r = -.53, p < .05$) but the results of this study didn't show a relationship between these scales ($r = -.05$).

One potential explanation of these divergent findings regarding cohesion may be that military families can maintain a level of cohesion because assessed behaviors indicating disengagement and chaos are expected as a function within military culture. The transient nature of military assignments may influence the families' experiences of chaos and disengagement. When considering societal norms related to military culture, these unbalanced scales may not be perceived as negatively due to expectations and the shared experiences of their familial peer group. Overall, when comparing this military sample to a non-military specific population (Olson, 2011), the correlations between various FACES IV subscales differed substantially in

many cases (see Table 9). These results suggest that military families may have a unique culture and family dynamic that should be considered when interpreting test data or developing interventions.

Implications

As was seen in this study, strong cohesion in a military family may be more common as the family has had to figure out ways to maintain a sense of closeness during deployments and other various military and non-military specific familial stressors. The decrease in enmeshment over the families' time in service and increased deployments with no influence on cohesion or satisfaction also suggests that these families may find support outside of their immediate family. For military families, the "bundling" between cohesion, satisfaction and flexibility suggests that assessment and interventions may be best targeted toward the components of cohesion (Olson & Gorall, 2003). Due to the overall heightened levels of cohesion, when assessing familial cohesiveness within a military family, special attention should be given to scores in the low to low average range using the FACES IV norms.

The overall profile for this sample of families indicated a rigidly-cohesive and balanced model of family functioning with markedly high enmeshment. While enmeshment was significantly higher in families having not experienced deployment, there was virtually no difference between their overall cohesiveness, nor any of the other FACES IV subscale variables when compared to families experiencing deployment. This may suggest that military families possess positive protective factors that allow them to remain close without over-reliance on the family system for support.

Although the rigidity and satisfaction levels had a negative correlation within the sample, the overall sample endorsed heightened levels on both scales. The two most highly endorsed unbalanced scale items in relation to their factor weight were both within the subscale of rigidity; the items were: “It is important to follow the rules in our family” ($M = 3.76, SD = 1.04, n = 104$) and “There are strict consequences for breaking the rules in our family” ($M = 3.07, SD = 1.22, n = 104$). As suggested by Oshri et al. (2015), this is likely reflective of the rule-following expectations engrained within military culture that may influence familial expectations as well.

As seen in Table 9, military families appear to manage chaos and disengagement within the family structure with reduced impact on their levels of cohesion and flexibility. The most highly endorsed item related to family chaos was “We never seem to get organized in our family” ($M = 2.01, SD = 1.05, n = 104$), while the most highly endorsed item related to disengagement was “We get along better with people outside our family than inside” ($M = 1.87, SD = 1.05, n = 104$). One possible explanation for these two highly endorsed items may be the transient nature of military family life related to frequent moves and the potential need to quickly connect with individuals outside of the home for additional stability. It might also be suggested that military families may be more adaptable to chaotic and disengagement factors due to cultural norming.

Limitations

There are several limitations to this study, beginning with examining multiple variables in the additional cross-sectional analysis. Due to not achieving predicted or significant results regarding satisfaction, rigidity, cohesion, and deployment, the analysis was expanded to examine additional demographic markers and FACES IV subscales. Caution should be taken when

inferring causal relationships between variables outside of the initial hypothesis such as those seen in Table 5. Similarly, the variable of years of service showed significant multicollinearity with deployment variables such as number of deployments (*tolerance* = .17, *VIF* = 5.75) and total months deployed (*tolerance* = .18, *VIF* = 5.66); in short, the longer they were in service the more likely they were to have experienced deployment. Multicollinearity between these two variables is expected as it is assumed the likelihood of being deployed increases over time in service, therefore, the results regarding the relationship between specific deployment factors and family functioning are interpretable.

Several other limitations are worth noting regarding the sample of this study, including the non-representative distribution in demographic variables of race and gender (see Table 1). Results should be interpreted with caution due to the sample being disproportionately skewed toward European heritage and female respondents, along with a higher proportion of officers compared to enlisted soldiers than would be expected in a representative military population (Padden, D. L., Connors, R. A., & Agazio, J. G., 2011). The uneven distribution between genders was likely influenced by seeking participants from multiple military spousal support groups as all 46 partners in the survey identified as female. The use of a convenience sample including a National Guard unit in a typically homogeneous region in Oregon and previously known military social media groups might explain the lack of representative racial diversity for this military population.

Finally, response bias likely exists due to the face valid nature of the survey. Participants were made aware that deployment and family functioning were being measured in an effort to generate interest for more responses, informed consent, and the nature of the individual items of

the survey. In particular, all questions relating to communication and satisfaction were grouped together to mirror FACES IV administrative protocol. The overall sample of military families' communication and satisfaction scored in the 80th and 75th percentiles respectively (see Table 3). It can be assumed that a non-military population would also be susceptible to face validity, however, this study's participants may have had additional personal incentive to respond more positively in an effort for military families to be viewed favorably.

Future Studies

Perhaps the greatest need for follow up studies would be to expand the sample to include more representatives from ethnic minorities and enlisted personnel. This would also serve to create more clarity regarding significant differences between this study and similar military samples (Oshri et al., 2015). An additional opportunity for future research would be to add a qualitative response option or specific questions related to social supports outside of the family. Specifically, it may be beneficial to ask families about their religious or social community involvement. By applying these additional demographic criteria, it may help discern the heightened enmeshment scores and reduced influence of disengagement on family functioning.

Conclusion

It was assumed that deployment would negatively impact family functioning due to previous studies concluding that familial stressors strongly influence the Circumplex model of family functioning and the well documented impact of deployment stressors on the family. However, the study revealed virtually no significant relationship between deployment and most of the Circumplex factors measured in the FACES IV, including those that were hypothesized to have a relationship. Additional analysis was run and negative correlations were found between

the total number of deployments and both enmeshed and chaotic scales. Furthermore, the study revealed significantly weaker causal relationships between multiple balanced and unbalanced scales within the FACES IV when compared to a normed non-military population. This suggests that military families differ significantly from the balanced norms, maintaining balanced familial relationships despite heightened unbalanced scales.

Another conclusion of this study may have been to provide more evidence of resilience within military families to achieve relational satisfaction despite the occurrences of deployments and heightened unbalanced scales. Rather than identifying a potentially causal relationship between deployment and domains of family functioning, this study found cohesion was a far stronger predictor of family satisfaction and overall functioning. Congruent with previous research on military families (Rossetto, 2013) and concurrent with a non-military population, focusing on improving family cohesion and communication would have the greatest influence on relational satisfaction within a military population.

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Appendix A**Military History Questionnaire**

What is the status of the person(s) with military experience?

Active, he/she is currently serving

Veteran, he/she has fulfilled their commitment/discharged

Other (please specify)

How many years total have you or your family member served in the U.S. Armed Forces?

(Open answer)

With what branch or branches has the service member been affiliated?

Air Force

Air Force Reserve

Air National Guard

Army

Army National Guard

Army Reserve

Coast Guard

Navy

Navy Reserve

Marine Corps

Marine Corps Reserve

Other (please specify)

What is the current rank or rank at time of discharge for the family member that has served? (e.g. E-3, O-2, etc.)

(Drop box with pay grade options)

Has a parent/partner in the immediate family experienced a military deployment or a mandatory military-related separation from their family for greater than 4 months?

Yes

No

Other (please specify)

How many military deployments of 4 months or greater has the service member experienced?
(Count each deployment once regardless of length)

(Open answer)

What was the month and year of the service member's return from his/her most recent deployment? If the service member is currently deployed, please enter "currently deployed."

(Open Answer)

Over the course of his/her career, how many months total has the service member been separated as a result of military deployments of 4 months or greater?

(Open Answer)

Appendix B**General Demographic Questionnaire**

What is your age?

(Open answer)

With what ethnicity do you identify?

Asian American

African American/Black

Latino/a

Hawaiian/Pacific Islander

Native American

White/European Heritage

Other

With what gender do you identify?

Male

Female

Other

Current relationship status:

Single, never married

Single, divorced

Single, widowed

Married, first marriage

Married, not first marriage

Partnered

Engaged

Separated

List the ages of all immediate family members including yourself. (i.e. 4, 7, 30, 31)

(Open answer)

Familial role as it relates to this survey:

Partner/Parent/Guardian (with military service)

Partner/Parent/Guardian (non-service member)

First Child

Second Child

Third Child

Fourth Child

Fifth Child

Other (please specify)

Appendix C**FACES IV**

1 = DOES NOT describe our family 2 = SLIGHTLY describes our family
3 = SOMEWHAT describes our family 4 = GENERALLY describes our family
5 = VERY WELL describes our family

1. Family members are involved in each other's lives.
2. Our family tries new ways of dealing with problems.
3. We get along better with people outside our family than inside.
4. We spend too much time together.
5. There are strict consequences for breaking the rules in our family.
6. We never seem to get organized in our family.
7. Family members feel very close to each other.
8. The parents check with the children before making important decisions.
9. Family members seem to avoid contact with each other when at home.
10. Family members feel pressured to spend most free time together.
11. There are severe consequences when a family member does something wrong.
12. We need more rules in our family.
13. Family members are supportive of each other during difficult times.
14. Children have a say in their discipline.
15. Family members feel closer to people outside the family than to other family members.
16. Family members are too dependent on each other.
17. This family has a rule for almost every possible situation.
18. Things do not get done in our family.
19. Family members consult other family members on personal decisions.
20. In solving problems, the children's suggestions are followed.
21. Family members are on their own when there is a problem to be solved.
22. Family members have little need for friends outside the family.
23. It is difficult to get a rule changed in our family.
24. It is unclear who is responsible for things (chores, activities) in our family.
25. Family members like to spend some of their free time with each other.
26. We shift household responsibilities from person to person.
27. This family doesn't do things together.
28. We feel too connected to each other.
29. Once a task is assigned to a member, there is little chance of changing it.
30. There is no leadership in this family.
31. Although family members have individual interests, they still participate in family activities.
32. Family members make the rules together.
33. Family members rarely depend on each other.

1 = Very Dissatisfied 2 = Somewhat Dissatisfied 3 = Generally Satisfied
4 = Very Satisfied 5 = Extremely Satisfied

34. We resent family members doing things outside the family.
35. It is important to follow the rules in our family.
36. No one in this family seems to be able to keep track of what their duties are.
37. This family has a good balance of separateness and closeness.
38. When problems arise, we compromise.
39. Family members know very little about the friends of other family members.
40. Family members feel guilty if they want to spend time away from the family.
41. Family members feel they have to go along with what the family decides to do.
42. It is hard to know who the leader is in this family.
43. Family members are satisfied with how they communicate with each other.
44. Family members are very good listeners.
45. Family members express affection to each other.
46. Family members are able to ask each other for what they want.
47. Family members can calmly discuss problems with each other.
48. Family members discuss their ideas and beliefs with each other.
49. When family members ask questions of each other, they get honest answers.
50. Family members try to understand each other's feelings
51. When angry, family members seldom say negative things about each other.
52. Family members express their true feelings to each other.
53. The degree of closeness between family members.
54. Your family's ability to cope with stress.
55. Your family's ability to be flexible.
56. Your family's ability to share positive experiences.
57. The quality of communication between family members.
58. Your family's ability to resolve conflicts.
59. The amount of time you spend together as a family.
60. The way problems are discussed.
61. The fairness of criticism in your family.
62. Family members concern for each other.

Appendix D

Curriculum Vitae

Education

George Fox University; Newberg, OR **Anticipated Graduation October, 2019**

Graduate Department of Clinical Psychology

Psychology Intern

Doctoral Candidate of Clinical Psychology

Dissertation:

Examining Adaptive Structures of Military Families in Relation to Deployment

George Fox University; Newberg, OR **April, 2016**

Master of Arts in Clinical Psychology

Manhattan Christian College; Manhattan, KS **May, 2012**

Bachelor of Arts in Family Ministry emphasis in Pre-Counseling

Clinical Experience

U.S. Army Clinical Psychology Intern at Brooke Army Medical Center **2018-Present**

Clinical Psychology Internship Program supervised by MAJ Raymond Beckman, PsyD

Fulfilling service obligation as an Active Duty Army Captain while completing my doctoral internship through 5 clinical rotations.

- Evidence-Based Treatment, Supervisor: Craig Woodworth, PsyD
- Multi-Disciplinary Outpatient Clinic, Supervisors: Debra Nofziger, PsyD & Tamika Person, PhD
- Campus Behavioral Health Services, Supervisor: Emily Burt, PsyD
- Clinical Health Psychology: Catherine DeBoer, PsyD
- Neuropsychology: Jayna Mercado, PhD

Providence Medical Group North Portland Medical Clinic **2017-2018**

Supervised by Nathan Engle, PsyD and Jeri Turgesen, PsyD

- Provided brief ACT-focused behavioral health treatment for patients in an integrated primary care setting, receives warm hand-offs from providers, and ADHD-specific screenings.
- Created treatment protocols for behavioral health concerns with frequently recurrent patient utilization.
- Conducted a quality improvement project involving distribution, collection, and presentation to providers with feedback from a symptom prevalence survey.

Behavioral Health Crisis Consultation Team **2016-2018**

Supervisors: Mary Peterson, PhD, William Buhrow, PsyD, Joel Gregor, PsyD, and Luann Foster, PsyD

- Provided on-call risk assessment at two hospitals for patients presenting with suicidal, homicidal, or psychotic symptoms.
- Wrote clinical reports and gave feedback to providers recommending inpatient hospitalization or discharge with outpatient community resourcing.

Evergreen Clinical**2017-2018**

Supervised by Brian Goff, PhD

- Non-profit outpatient mental health clinic that provided low-cost long-term ACT-focused treatment.

United States Department of Veteran Affairs, Portland VA Health Care System 2016-2017

Outpatient Mental Health; Supervisor: Gina Ortola, PhD

- Provided outpatient CBT psychotherapy, member of a multidisciplinary mental healthcare team, and co-facilitated a DBT group.

Health Psychology; Supervisor: Bret Fuller, PhD

- Provided individual psychotherapy services to patients with medical and mental health diagnosis referred from multiple medical services in the VA Hospital.

Palliative Care; Supervisors: Elizabeth Goy, PhD and Quyen Sklar, PhD

- Individual palliative care consults and individual ACT based interventions with a medical inpatient population.

Chronic Pain Clinic; Supervisor: Kenneth Sewell, PhD and Quyen Sklar, PhD

- Administered chronic pain consults with a physician to patients in the Northwest Pain Clinic with brief interventions from a CBT and Biopsychosocial lens.

Primary Care Mental Health Integration; Supervisor: Darin Bergen, PhD

- Provided treatment in a brief short-term model, received warm hand-offs, and worked within a multidisciplinary primary care team.

AGH Samaritan Neuropsychology**Summer 2016**

Supervised by Robert Fallows, PhD

- Administered neuropsychological batteries to incoming Oregon State University athletes with the purpose of creating a baseline for concussion protocols and screening for learning disorders.

Willamette Valley Medical Center**2015-2016**

A hospital setting with two co-occurring rotations: Supervised by Luann Foster, PsyD

- Administered neuropsychological assessment batteries and wrote abbreviated comprehensive reports for a geriatric inpatient population in the Senior Behavioral Health Unit.
- Performed bariatric surgical evaluations providing feedback and clearance to proceed with the surgical team. Provided outpatient solution-focused therapy and lead psychoeducational groups for pre and post-operation bariatric surgical patients.

Additional Trainings**HPSP ADT at Madigan Army Medical Center; JBLM, WA** **Summer 2017**

- Observed interns and behavioral health staff in three rotations including: Neuropsychology, Outpatient Behavioral Health, and the National Center for Telehealth & Technology.
- Attended a workshop lead by W. Brad Johnson, PhD focusing on ethical considerations for military psychologists.
- Participated in a two-day workshop on the administration and interpretation of the MMPI-2-RF lead by Yossef S. Ben-Porath

Acceptance and Commitment Therapy Bootcamp; San Diego, CA **February 2017**

- 4-day experiential and skill building training event.
- Topics Included: Orientation to core theoretical foundations of ACT, skill development and clinical utility of ACT, and application and development of ACT clinical skills.

Clinical Experience Prior to Graduate Training**Via Christi Village Manhattan** **2011-2014**

- Worked as a chaplain in a skilled nursing facility developing pastoral care plans, social-spiritual assessments, and provided palliative care.

Clinical Pastoral Education at Wesley Medical Center **Fall 2012**

- One unit of C.P.E. at a level-one trauma center which entailed 500 hours of varied clinical pastoral experience.

Supervision and Teaching Experience**Teaching Assistant for PSYC 400 Intro to Psychological Assessment** **Spring 2018****George Fox University**

Supervised by Joel Gregor, PsyD

- Wrote, administered, and scored monthly quizzes.
- Lectured on Assessment Protocols in Health Psychology.
- Led interactive group study sessions prior to three exams.

Teaching Assistant for PSYC 422 Child Psychopathology **Spring 2018****George Fox University**

Supervised by Joel Gregor, PsyD

- Wrote, administered, and scored monthly quizzes.
- Led interactive group study sessions prior to two exams.

Fourth Year Mentor, GDCP Clinical Team **2017-2018**

Supervised by Nancy Thurston, PhD

- Met weekly with a second-year doctoral student to provide supervision.
- Oversaw clinical work, provided mentorship, and guided professional development.

Teaching Assistant for PSYD 522 Cognitive Assessment**Fall 2016****George Fox University**

Supervised by Celeste Jones, PsyD

- Provided weekly group and individual supervision for six graduate psychology students.
- Reviewed and graded student videos of test administrations.
- Lectured on the administration of the WIAT-III.
- Created instructional administration videos for each subtest of the WMS-IV.

Conference Poster Presentations

Reed, G., Wade, L., Engle, N., & Drake, G. (2018). *Portland Area Primary Care Providers and Personalized Behavioral Health Services*. Poster presented at the annual convention of the American Psychological Association, San Francisco, CA. Division 38 Society for Health Psychology.

Reed, G., Dunbar, K., Engle, N., & Drake, G. (2018). *Portland Area Primary Care Providers and Personalized Behavioral Health Services*. Poster presented at the annual convention of the Oregon Psychological Association, Portland, OR.

Sanders, E., Reed, G., Grace, E., Ramirez, S., & Peterson, M. (2017). *Demographic Trends Associated with Alcohol Misuse Among Rural ED Patients*. Poster to be presented at the annual convention of the American Psychological Association, Washington DC. Division 50 Society of Addiction Psychology.

Song, C., Reed, G., & Dunbar, K. (2016). *S.O.S.: Evaluation of a Risk Assessment Training on Mental Health Professionals*. Poster presentation at the annual convention of the American Psychological Association, Denver, CO. Division 14 Society for Industrial and Organizational Psychology.

Speck, C., Sanders, E., Peterson, M., & Reed, G. (2016). *Change in Relationship Dynamics after Bariatric Surgery: A Qualitative Analysis*. Poster presented by Gabriel Reed at the annual convention of the American Psychological Association, Denver, CO. Division 22 Rehabilitation Psychology.

Davis, S., Sanders, E., & Reed, G. (2015). *Assessing the Stability of Kelso's Choice impact on self-Efficacy Development Over Time*. Poster presentation at the annual convention of the Oregon Psychological Association.

Extracurricular Involvement**Army HPSP Recipient****2017-2018**

- Received the one-year HPSP scholarship and commissioned May 10th, 2017.

Military and Law Enforcement Student Interest Group**2016-2018**

- Co-Creator and Facilitator

Affiliations and Memberships

- American Psychological Association, Student Affiliate
- APA, Division 19 Military Psychology, Student Affiliate

2014-Present

2016-Present

Professional References

Available upon request.