

**Fortifying Military Relationships Through Stronger Families:
A Program Evaluation Study**

Irina Vadimovna Owen

College of Social and Behavioral Sciences

Northwest University

Author Note

I have no conflicts of interest to disclose.

Leihua Edstrom, PhD, Committee Chair. Nikki Liu Johnson, PsyD, Committee Member. Jenny Harris, PhD, Committee Member.

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Correspondence concerning this article should be addressed to Irina V. Owen at Northwest University, College of Social and Behavioral Sciences, 5520 108th Avenue NE, Kirkland, WA, 98033. Email: irina.owen15@northwestu.edu

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Abstract

The aim of this study was to examine if the OXYGEN marital enrichment program had any potential benefits on marital quality within active duty military couples. Marital quality was assessed before and after the OXYGEN seminar by measuring participant relationship satisfaction, relationship dedication, and satisfaction with sacrifice.

Additionally, participants were asked to complete program evaluation ratings in a posttest survey. There were 27 participants (13 male, 14 female). Data were analyzed via a one sample *t* test to determine if there were any differences in relationship satisfaction, satisfaction with sacrifice, and dedication across two different time periods (T_0 and T_1).

Results indicated changes from pre- to post-test on measures of couple satisfaction, relationship dedication, and satisfaction with sacrifice were not statistically significant. A linear regression analysis was used to determine whether satisfaction with the seminar was related to changes in relationship satisfaction and relationship dedication. The seminar satisfaction rating was not predictive of relationship satisfaction or dedication scores after controlling for biological sex and pretest relationship satisfaction scores.

Limitations of the study included a small participant pool, lack of a control group, and only using self-report measures to assess relationship quality. Most research on psychoeducational relationship classes has focused on heterosexual and married couples; this study's participant pool is reflective of that. Further studies are needed to determine generalizability of existing research to nonheterosexual, nonmarried relationships (e.g., cohabitating couples, polyamorous relationships, and couples in the LGBT community).

Keywords: marriage education, relationship education, military couples, military relationships

Chapter 1

From an individual perspective, marriage may seem as a largely private matter, yet the success or failure of marriages ripples across society. Economically, married couples tend to accrue more wealth than individuals and are less likely to use public welfare resources (Thomas & Sawhill, 2005). Additionally, women are more likely to be negatively impacted by divorce than men (Lupton & Smith, 2002). Single mothers are more likely to have a lower income, live in a lower socioeconomic area, and be unemployed (Crosier et al., 2007). However, it is not only marital status that impacts individuals; marital satisfaction matters, too. Those in high distress relationships are more likely to experience negative physiological symptoms (e.g., high blood pressure, chronic pain), mental health issues (e.g., anxiety, depression, and suicidality) and an increase in negative health behaviors, include substance use (Fincham & Beach, 1999; Glaser & Newton, 2001). In a 10-year longitudinal study by Hannighofer et al. (2017), mothers in an unhappy but stable relationship scored similarly on a measure of depression, anxiety, and stress as mothers who were single or in an unstable relationship (defined as being separated in the past 10 years or were single and began a relationship in the past 10 years). Furthermore, children of mothers in an unstable relationship had the highest probability of developing maladaptive externalizing behaviors. Children of couples who experience marital conflict and dissolution are more likely to experience physical health issues both in childhood and adulthood, possibly due to environmental stressors that trigger affective, behavioral, and cognitive deficits (Troxel & Matthews, 2004). In turn, these deficits are hypothesized to negatively impact health behaviors and the physiological stress response systems, leading to increased risk of chronic illness

conditions. The reduction of divorce and improvement of existing relationships not only benefits individuals, but also their families and the public sphere.

The U.S. government has realized the importance of stable relationships of its citizens, publishing findings that “marriage is the foundation of a successful society” and it is “an essential institution of a successful society which promotes the interests of children” (Pub. L. No. 104-193, § 110 Stat. 2110, 1996). In 2002, the United States government diverted significant funds to the Healthy Marriage Initiative to be used for research on and implementation of relationship enrichment and skill training programs, with the goal of strengthening existing relationships, reducing out-of-wedlock births, and increasing fathers’ engagement in nonmarried couples, thereby improving child well-being (Carter, 2018). This initiative has continued to receive funding, overseen by the U.S. Department Health and Human Services, showing the government’s continued emphasis on the importance of stable family systems as a key for societal well-being. The quality of life of the family unit has also been stressed as being paramount to the enlistment, retention, and mission readiness of the U.S. military (Rosen & Durand, 1995). However, marriage and the family of military personnel have not always been held in such high regard

Marriage and Divorce in the Military Population

Marriage in Military Couples

Since the draft was eliminated in 1973, and the U.S. government moved toward an all-volunteer military force, considerable attention and effort has been given for the recruitment and retention of soldiers, which has included providing a considerable number of benefits and supports to the soldier’s spouse and their dependents (Rostker,

2006). Prior to World War II, the Army had generally discouraged married men from serving through official policies or through lack of assistance for the families of married soldiers. Not until the late 1940s did the government provide a living allowance for families living outside of the military compound and on post housing for married soldiers ranked E-4 and above. Until 1975, married females were not allowed to enlist, and once enlisted, could be discharged after becoming married or pregnant (Rostker, 2006). In 1984, the U.S. Army initiated the greatest undertaking to systematically address the quality of life of its military families to date. This was largely due to the official recognition that “family issues were now absolutely essential to both retention and readiness and thus to the success of the Army” (Shinseki, 2003, p. 1). Proposed changes included building new childcare facilities and community resource centers, upgrading existing family housing and building new units, and providing assistance for disabled dependents.

Today’s Active Duty military force is markedly different than the past, with family members (i.e., registered spouses, children, and adult dependents) comprising 55.6% and Active Duty members comprising 44.4% (Defense Manpower Data Center, 2017). For the purposes of this literature review, the terms servicemember, military personnel, and soldier will refer to those who are currently serving in the U.S. Armed Forces under the Department of Defense and include the branches of the Army, Navy, Air Force, Marine Corps.

Family members outnumber Active Duty members in the Army, Navy, and Air Force but not in the Marines. These numbers are based on the number of dependents registered in Defense Enrollment Eligibility Reporting System (DEERS), and the actual

numbers may be higher. Demographic data from 2017 estimate 52.6% of Active Duty members were married 2017, a stark difference from a past military that discouraged or forbade parents or married individuals from enlisting. Out of the 680,759 married Active Duty members, 12.5% were in dual-military marriages, meaning one spouse is an Active Duty member married to another Active Duty member or a member of the National Guard or the Reserve. Although the total percentage of married Active Duty military members has decreased by 4.2% since 2010, it still represents a significant number of the population whose marital experience is markedly different than that of their civilian counterparts (Defense Manpower Data Center, 2017). These differences encompass both unique benefits and challenges.

Military Incentives for Married Couples

Currently, the U.S. Armed Forces offers unique benefits for military couples, which may slightly differ from branch to branch. Service members and their families have the opportunity to obtain housing on military installations or receive a housing allowance if they desire to live off base. Furthermore, they receive a Basic Allowance for Sustenance (BAS), a food stipend not given to nonmarried military personnel. The amount of the housing allowance and BAS increase for each child or dependent family member registered within the military database by the service member. If a service member is required to be apart from their spouse due to deployment or a training exercise, spouses receive monetary compensation for separation lasting longer than 30 days (Defense Finance and Accounting Service, 2018). Other benefits include health care for the service member and their dependents, child care support, access to home loans, college tuition for soldiers and qualified spouses, and free couple and parenting education

classes (U.S. Department of Veteran Affairs, 2018). Additionally, service members must pass physical and mental health standards when joining any service branch (Military Health System, 2018) and are healthier, on average, than the general population (McLaughlin et al., 2008). These many benefits serve to counteract risk factors associated with divorce in military couples, such as lower education levels (Negrusa & Negrusa, 2014) and financial stress (Teachman & Tedrow, 2008).

Because lack of financial stability is commonly cited as a deterrent to marriage (Smock et al., 2005), these financial benefits help explain why military personnel are more likely to marry than their civilian counterparts (Hogan & Seifert, 2009; Karney et al., 2012). A married E-1 Active Duty soldier with no children and less than 4 months of service will receive an annual salary of \$19,659.60 for their base pay. Total benefits and compensation for this individual (including housing and subsistence allowance, and a federal income tax advantage) are valued at \$44,900.28 (Military Compensation, 2018). By contrast, an entry-level, full-time associate at Walmart will earn approximately \$30,222.40 per year in Washington state (Walmart, 2018). Thus, compared to civilian entry-level jobs, the military career pathway has numerous advantages such as early financial stability, family benefits, opportunities for advancement, and a low risk of becoming unemployed. These factors may be why military personnel are marrying, divorcing, and then remarrying earlier than the civilian U.S. population (Adler-Baeder et al., 2006).

Specific catalysts for the decision to enter wedlock were described in an analysis of a qualitative study by Lundquist and Xu (2014). Based on 43 interviews conducted on two U.S. military installations in Germany, the authors found two major events that

influenced the timing and decision to become married: war zone deployment and relocation. For those deploying to war zone, marriage would provide financial security for their romantic partner in case of injury or death, and it was a way to stay emotionally connected during a prolonged separation. Orders for a permanent change of station (PCS) emerged as another major theme in the decision to marry. A PCS typically occurs every 2–3 years, so the couple knows they must choose to marry or end the relationship. In the event of marriage, the military will pay for the spouse to relocate. If the marriage is between two servicemembers, there is also opportunity to request being stationed at the same military installation. In addition to all of the abovementioned incentives military couples receive, there are also specific challenges associated with a military lifestyle.

Lifestyle Challenges for Military Couples

Military couples face a number of distinctive lifestyle challenges in addition to experiencing the struggles of civilian couples. These unique stressors have an impact on the relationship and each individual in the dyad. Challenges of the military lifestyle include frequent relocation, unpredictability of work demands, prolonged separation, increased risk of physical harm, increased risk of mental distress for both the soldier and their spouse, the stress of combat deployments, and a lifestyle that places the needs of the military above all else (Basham, 2008; Rosen & Durand, 2000; Sherwood, 2009).

Although there are other careers that may have the same work demands, the military is unique in that these work conditions occur for prolonged periods of time and impact our country's mission readiness—the ability to deter and identify threats and counter existing threats (Wadsworth & Southwell, 2011). Members in the Armed Forces are expected to have complete dedication to their service and are considered to be on duty 24 hours a

day, 7 day a week (Sherwood, 2009). The Soldier's Creed in the U.S. Army explicitly states soldiers "will always place the mission first" (U.S. Army Training and Doctrine Command, 2017, p. 38). There is an expectation of both the soldier and their family to set aside their own needs for those of the military, as evident by the old adage "If the military wanted you to have a wife, they would have issued you one" (Davis, 2014, para. 3).

Frequent Relocation

Spouses frequently sacrifice familial and peer relationships, as well as career and education opportunities, due to relocations occurring approximately every 2–4 years, stateside or overseas (Wadsworth & Southwell, 2011). It was only after the recent efforts of the White House's Joining Forces initiative that the process of obtaining a new professional licensure in each state was simplified for military spouses (Giaritelli, 2016). Before this initiative, military spouses had to meet the professional licensure standards for each relocation if they wanted to practice in that state. This process could involve paying licensure fees, taking additional courses, and long waiting times. As a result of frequent relocation, military spouses are employed at lower rates, are less likely to work full time, and earn less than their civilian counterparts (Clever & Segal, 2013; Harrell et al., 2004; Little & Hisnanick, 2007). The strain on earning potential of military spouses can be a cause of financial strain, which has been found to correlate with higher divorce rates and low marital satisfaction (Pflieger et al., 2018; Teachman & Tedow, 2008). Frequency of relocation has been shown to negatively impact standardized math test scores of children of enlisted soldiers (Lyle, 2006). This impact was particularly strong on children who were younger, had mothers serving in the military, and came from single-parent homes. On a positive note, relocation frequency was associated with a

decrease in school suspensions, school problems, and class failure, when controlling for age (Weber & Weber, 2005).

Prolonged Separation

In addition to frequent relocation, military couples also experience repeated periods of prolonged separation. Deployments are not only limited to combat deployments in war time, and military personnel may be deployed for training purposes, peacekeeping missions, or disaster relief efforts (Department of Defense, 2009). Sometimes soldiers know about their deployment months in advance, while others are required to leave at a moment's notice (Wadsworth & Southwell, 2011). Steady means of communication are not guaranteed. Even when spouses are able to communicate, the service member may be forbidden from sharing details of the mission or may prefer to confide in his or her fellow soldiers (Badr et al., 2011). Minimal disclosure and low levels of emotional intimacy have been found to be associated with low relationship satisfaction for both the service member and their civilian spouse (Balderrama-Durbin et al., 2013; Erbes et al., 2008; Gewirtz et al., 2010). Furthermore, research has suggested that, during deployment, married soldiers report higher stress and are more likely to develop PTSD symptoms than single soldiers (Hosek & Martorell, 2011; Newby et al., 2005; Skopp et al., 2011). Married soldiers reported experiencing relationship-oriented stress directly related to prolonged separation, such as concern over spousal fidelity, missing significant family events, and a perceived or actual decline of the relationship with their children or spouse. For wives of deployed soldiers, deployment over 11 months was associated with higher rates of depression and anxiety diagnoses, sleep disorders, and

adjustment disorders when compared to the wives of nondeployed soldiers (Mansfield et al., 2010).

Reunification comes with its own challenges, as soldiers return to their families and must adjust to a new schedule, environment, and role in the family (Makin-Byrd et al., 2011). Spouses and other family members can experience positive and negative emotions over their return and the readjustment of incorporating the soldier into the daily routine. A study on dual military couples by Anderson et al. (2011) found no significant relationship between the number of deployments and marital distress. However, wives' rank in dual military couples was found to be negatively correlated to her self-reported marital quality. Additionally, husbands' marital satisfaction was also negatively correlated to wives' rank in dual military couples (Lacks et al., 2015). Research is very limited on marriage for dual military couples, and the aforementioned study contained a small sample size ($n = 34$).

Divorce Trends

A multivariate analysis by Cohen (2018) demonstrated an 18% decrease in the U.S. divorce rate between 2008 and 2018. Even when controlling for age, the rate of divorce is still at a decline at 8%. Further analysis indicated newly married women in the past 10 years are more likely to be in first marriages, have a 4-year degree or higher, and are less likely to be under 25 years old. These factors of higher education for women and an older age for the first marriage are both associated with a lower likelihood of divorce (Boertien & Härkönen, 2014; Schwartz & Han, 2014). Cohen (2018) speculated this is a result of millennials being more discerning with potential partners and delaying marriage until after achieving financial stability. This downward trend with divorce is occurring

even as divorce is seen as more permissible than in decades past. According to the 2017 Demographics Report (Defense Manpower Data Center), the Active Duty military population has experienced a similar downtrend of divorce since 2010 (3.6% compared to 3.1% in 2017). A closer review of the data reveals the percentage of divorce rates has lowered for officers (1.9% in 2010 to 1.7% to 2017), and slightly increased for enlisted soldiers (3.4% in 2010 to 3.5% in 2017). Commissioned officers are typically older, have a bachelor's degree or higher, and are in a higher pay grade than enlisted soldiers, and thus possess several key demographic characteristics that have been linked with a lower divorce risk in military couples (Karney & Crown, 2007; Negrusa & Negrusa, 2014; Teachman & Tedrow, 2008) and the general population. Other risk factors for divorce in military couples include being a dual military couple (Negrusa & Negrusa, 2014) and not having children (Karney & Crown, 2011; Teachman & Tedrow, 2008). Female soldiers are also more likely to get divorced than male soldiers (Karney & Crown, 2007, 2011). The gender difference in divorce rates among military personnel was found in comparable civilian populations (Karney et al., 2012). This finding was not repeated in the study by Adler-Baeder et al. (2006), which compared military populations to overall civilian demographics. However, the researchers acknowledged female soldiers may have more in common specifically with civilian career women, who are more likely to divorce and less likely to marry when compared to noncareer women (Cherlin, 1992).

Research focused solely on divorce in military couples may not describe the full picture. Military couples receive many benefits that are terminated once the couple is divorced (housing and food allowance, separation pay, health insurance, and permission to access the military base for the spouse), and this may encourage certain couples to stay

together (Lundquist & Xu, 2014; Meadows et al., 2016; Karney et al., 2012). Once soldiers end their military service and lose their benefits, both female and male veterans experience higher rates of divorce than comparable civilians (Karney et al., 2012). Other military couples may live separately but not file for divorce to retain benefits (Derochick, 2015). Therefore, separated couples may not appear in research solely focused on divorce while ignoring factors such as marital satisfaction. Additionally, both civilian and military couples may choose to continue to stay married due to moral or structural commitments (Johnson et al., 1999). A personal moral commitment may be expressed as a feeling of obligation to marital vows or a belief that divorce is unjustified under any circumstances. If an individual holds a strong structural commitment, they may feel “trapped” due to social pressure to continue the relationship. Others may acknowledge pragmatic difficulties (i.e., finding new housing or work, the legal process required for divorce and child custody negotiations) that cannot be resolved with existing resources. When couples did make the decision to dissolve their marriage, the most endorsed reasons included lack of commitment, infidelity, too much conflict/arguing, substance use, growing apart, and the way their spouse handled finances (Amato & Previti, 2003; Hawkins, Willoughby, et al., 2012; Johnson et al., 2001; Scott et al., 2013).

Marriage Enrichment Programs

Marriage enrichment programs (MEPs) are one source of support offered to military couples. Hawkins et al. (2008) defined marriage enrichment programs as the “didactic presentation of information” (p. 723) aimed at improving marital quality and stability. There are many varieties of MEPs, and topics of discussion generally focus on building communication and conflict resolution skills, managing finances, sexual

intimacy, and sharing expectations. MEPs may be theologically based (i.e., Marriage Encounter) or grounded in a specific theoretical orientation (i.e., Training in Marriage Enrichment was developed using Adlerian principles; Lester & Doherty, 1983; Mattson et al., 1990). The implementation and format of MEPs can also differ. For example, the Prevention and Relationship Education Program (PREP) for Strong Bonds was disseminated in a weekend retreat format (Stanley et al., 2005), and participants in a study completed by Markman et al. (1993) were expected to complete five 3-hour sessions as part of the PREP curriculum. MEPs are not intended to function as therapy, and the facilitators do not focus on one couple and their issues (Markman & Rhoades, 2012). Generally, the goal of MEPs is to act as a prophylactic for future distress and to improve the current relationship quality (Blanchard et al., 2009).

Theoretical Framework

To achieve these objectives, MEPs are comprised of distinct mechanisms of change that can be explained by existing theoretical foundations of family systems theory and interdependence theory.

In family systems theory, individuals are viewed within the context of their family system (Klein & White, 1996). The family system may include household members, or a larger “family” structure such as a soldier’s squad or platoon. An individual’s family of origin could also be included in the system, if they have significant influence in the individual’s household. The individual, their family, and the environment are mutually influencing: The individual is influenced by these components, which impact them in turn (Duncan & Rock, 1993). These interactions develop into a pattern, with individuals

in the system contributing significant effort to maintain the homeostasis of the system, whether the interactional patterns are healthy or maladaptive (Day, 2014).

MEPs seek to address the existing self-regulating interactional patterns through first-order and second-order change. First-order change refers to changes made on an individual level (Watzlawick et al., 1974). These can include learning skills such as mirroring and providing validation to one's partner, which are then used by the individual. Second-order change seeks to address the underlying assumptions of the relationship and interpretations of the partner's behavior (Watzlawick et al., 1974). For example, in the Stronger Families OXYGEN seminar, couples are asked to complete the Couples Checkup assessment, which provides information about the personality profile of each partner based on their responses. In the seminar, results are used to help each partner understand how their personality profile may enact in the relationship. Additionally, couples are guided to understand how to respond to, relate to, and bolster their spouse based on assessment results. Thus, both first-order and second-order change are incorporated into the OXYGEN seminar to disrupt dysfunctional patterns of interaction that exist in the family system.

Interdependence theory focuses on social interactions and the mutual influence of two individuals (Kelley & Thibaut, 1978). Specifically, any interaction is a function of individual dispositions (i.e., the thoughts, emotions, or behaviors of one person and the thoughts, emotions or behaviors of the other person) and the situation (i.e., social norms, or problems and opportunities present in a specific situation; Kelley et al., 2003). For example, Person A may exhibit a certain behavior, and the interpretation of that behavior by Person B will influence their response, which may be further moderated by the context

of the situation. These repeated interactions of mutual influence will characterize a relationship and create patterns of interaction (Van Lange & Balliet, 2015). Thus, change in Person A in a dyad will also influence the response of Person B, which in turn will influence Person A. Change is one person has the potential to create new interactional patterns through mutual influence.

MEP Efficacy

Given that MEPs and their potential benefits have public welfare implications and could potentially impact public policy, a substantial number of studies have been conducted to determine whether MEPs truly have an impact on relationship quality, the duration of any initial change, and if certain populations are more receptive to MEPs than others. The efficacy of MEPs varies widely due to the differences in program implementation and the populations that attend such programs. Nonetheless, meta-analytic studies have suggested such programs do significantly improve relationship quality, relationship satisfaction, and communication (Blanchard et al., 2009; Halford & Bodenmann, 2013).

Other research has specifically focused on whether demographic, individual, or relationship factors impact the outcomes of MEPs. A number of studies have suggested there are no significant differences between low- and high-income couples and the benefit gained from MEPs (Stanley et al., 2005; Williamson et al., 2016; Williamson et al., 2015). An evaluation of the Practical Application of Intimate Relationship Skills (PAIRS) program with low-income married or engaged couples determined couples significantly improved on measures of relationship satisfaction, affection, and cohesion. These improvements continued 6 and 12 months after the 9-hour PAIRS program

(Peluso et al., 2011). White couples with high economic strain were found to have a significant reduction in divorce after participating in an MEP, and White couples who did not experience economic strain experienced similar rates of divorce to the control group (Allen et al., 2015). Yet Karney and Bradbury (2005) argued couples experiencing chronic stress (e.g., financial difficulties, drug/alcohol abuse within the marriage, infidelity) have greater difficulty using skills and emotional resources necessary to maintain a relationship due to the high burden placed on the relationship. For wives experiencing chronic stress, a single acute life event was linked with more drastic declines in marital satisfaction than wives who did not experience chronic stress (Karney et al., 2005). These same couples experienced steeper declines in marital satisfaction over a 4-year period if they reported high levels of chronic stress. Thus, the benefits of MEPs can be tempered if couples are experiencing chronic stress and are less likely to use skills learned during the program. Military couples may be experiencing financial stress, repeated prolonged separations, distress over potential harm or risk of death during a combat zone deployment, difficulty establishing a social support system due to multiple relocations to military installations, and other potential stressors such as infidelity or chronic illness. All of these stressors could make it difficult to employ healthy communication skills, engage in sexual intimacy or resolve conflicts—topics typically endorsed as being part of a healthy marriage during MEP.

A couple's ethnic minority status can also moderate MEP efficacy, although effects may not immediately be evident. White couples and minority couples (in which at least one spouse was an ethnic minority) reported similar improvements on relationship satisfaction and confidence in their relationship 1 month after completing an MEP

(Stanley et al., 2005). In comparison, ethnic minority couples were significantly less likely to divorce than ethnic nonminority couples in a 2-year follow-up in a study completed by Stanley et al. (2014). The authors did not speculate why the MEP was especially effective for the reduction in divorce for ethnic minority couples.

When comparing changes in relationship quality between men and women, Stanley et al. (2014) determined both men and women exhibited comparable improvements in perceived relationship quality. However, 5-year longitudinal studies exhumed gender differences in that an increase in positive communication in men predicted a decreased likelihood of marital distress for men after participating in an MEP. Women presented with the opposite effect; a significant increase in positive communication and decrease in negative communication was predictive of onset of marital distress and depression for women (Baucom et al., 2006; Schilling et al., 2003). For both studies, participants were given a communications score using a global observational coding system designed to rate each member of a dyad on nine communication dimensions during a 10-minute videotaped interaction task. In the Schilling et al. (2003) study, women's increase in positive communication from pre to post test was linked to a higher avoidance of solving problems in their relationship. Baucom et al. (2006) speculated a portion of the women could have misinterpreted the modules to mean they should only relate to their spouse in a positive manner. As the women are unable to keep this up in the long term, they experience higher distress. Nonetheless, most couples in the study continued to experience relationship satisfaction at the 5-year follow-up, with small declines occurring after each year.

Online Delivery of MEPs

One way to overcome barriers to accessing marriage enrichment programs is to offer web-based approaches. Data from the 2013-2017 American Community Survey (ACS) estimate 78% of households subscribe to the internet, although rural and low-income areas are at approximate 65% subscription rate (U.S. Census, 2018). Thus, web-based resources may be more accessible to individuals with low population density and low access to in-person resources, when compared to urban areas. There has been some research completed to discover whether this method of delivery is comparable to in-person programs. For example, the effectiveness of ePREP, an internet-based version of an evidence-based relationship program, was found to improve trust and aggression when compared to a psychoeducation only control group (Braithwaite & Fincham, 2009). A study by Duncan et al. (2009) also found similar improvements between an in-person and internet-based relationship program.

Durability of MEP Results

Although the general efficacy of MEPs has been established, the robustness of the results is yet unclear. Generally, with initial improvement of relationship satisfaction directly after intervention, effects diminished 6 months, 1 year, and 2 years after participating in an MEP (Allen et al., 2015; Bodenmann et al., 2006; Cordova et al., 2014; Halford et al., 2017; Schwartz, 1980). In Cordova et al.'s (2014) study, participants were given a single booster session after 12 months. Although relationship satisfaction increased to levels of the initial intervention, the effects subsided at the 2-year follow-up.

Individual and Couple Factors as Moderators

To truly understand the interaction effects of MEPs and individuals, numerous studies have been conducted on the moderating impact of risk factors on the outcomes of MEPs. As Williamson et al. (2015) theorized, high distress couples may gain the most from MEPs, yet their distress may prevent the couple from implementing skills learned in training. Couples with adaptive interpersonal skills and initial high relationship satisfaction may have the emotional resources and communication skills needed to use the information learned in MEPs, yet their baseline high functioning will likely limit the benefit gained from attending an MEP (Halford & Bodenmann, 2013; Halford et al., 2017; Halford et al., 2001).

However, there are marked differences in the criteria used to determine whether participants are a *high-risk* or *low-risk* couple. Risk has often been categorized as the individual traits of each person in the dyad or the baseline functioning of the relationship. Perhaps the most comprehensive research on moderating risk factors in relationship education was completed by Williamson et al. (2015). Analysis of the moderating effect of individual and relational risk factors suggested couples with higher physical aggression and individual alcohol use experienced the least improvement and the quickest decline in relationship satisfaction following treatment. Additionally, couples with low relational risk factors (scoring high commitment, satisfaction, emotional support and effective communication at pretest) experienced faster decline in relationship satisfaction than couples with high relational risk factors. Individual risk factors such as parental divorce, trait anger, depressive symptoms, education level, and income did not

have an effect on relationship satisfaction. Moreover, relational empathy and marital problems did not moderate the outcome.

Men's baseline relationship instability has been shown to have no bearing on improvement in relationship quality after participating in an MEP, yet the same did not hold for women. Women who reported higher relationship quality and relationship instability at pretest had significantly greater improvements in relationship quality (McGill et al., 2016). Infidelity has also been shown to moderate treatment effects. Although intervention group couples with a history of infidelity had the most significant gains in relationship satisfaction post treatment, their relationship satisfaction scores were nonetheless lower at posttest than the control and intervention group couples with no history of infidelity (Allen et al., 2015; Allen et al., 2012).

Outcomes can be further moderated by treatment conditions. A meta-analysis by Hawkins, Stanley, et al. (2012) reviewed 148 quantitative studies (of which 69 were unpublished) for treatment design and their outcomes and found no difference between program setting (place of worship vs. university), or program structure (highly manualized vs. less structured programs) in treatment outcomes. To be included in the meta-analysis, the study had to measure the effects of a psychoeducational intervention aimed at couples. Couple interventions are typically designed to improve several aspects of a relationship, although the most common are relationship satisfaction and communication skills. Thus, only these two outcomes were used in the meta-analysis. Experimental and quasi-experimental studies, and one group study, were all included in the meta-analysis, although the latter was analyzed separately.

Hawkins, Stanley, et al. (2012) determined the strongest effects occurred when couples were required to attend between 9–20 hours of an MEP, or a program that was 10 or more sessions. A slower decline in satisfaction over a 2–year period was associated with couples who attended 10 or more hours of an MEP, and couples who attended less than 10 hours had steeper declines in satisfaction (Cobb & Sullivan, 2015). Couples with high baseline relationship satisfaction required to attend low intensity programs (five sessions) had slower decline in satisfaction than couples required to attend an intensive 16 session program (Williamson et al., 2015).

Current Support Programs in Military

Currently, a number of MEPs are offered to servicemembers and their spouses (Military OneSource, 2018). Most programs are taught in a 1– to 2–day format on the installation, or during a weekend retreat, at no cost. Each branch of the Armed Forces offers its own distinct program, and the following is a brief description of the service-specific programs. Programs are typically organized and run for each unit by the unit assigned chaplain. The Army branch uses Strong Bonds, a program dedicated to increasing “individual Soldier and Family member readiness through relationship education and skills training” (Strong Bonds, n.d., para. 1). Strong Bonds offers program-specific curriculum focusing on single soldiers, couples, families, and families in the pre- and post-deployment cycle. The specific curriculum offered, and frequency of events, are determined by the unit’s chaplain and the leadership of each unit. The Marine Corps and Navy offers MEPs through the Chaplains Religious Enrichment Development Operation (CREDO). The CREDO facilitates workshops and retreats “designed to inspire hope and strengthen spiritual well-being and enrich the lives of service members and

families” (Commander, Navy Installations Command, n.d., “Chaplains Religious Enrichment Development Operation”). The workshops and seminars vary by installation. One format is the Prevention and Relationship Enhancement Program (PREP), which is available for Active Duty/Reserve military members and their spouses or fiancées, as well as referred Department of Defense civilian employees who are either married or engaged (Marine Corps Community Services Quantico, 2016). CREDO also organizes Marriage Enrichment and Family Enrichment retreats (Military OneSource, 2018). Participants must be a legally married couple with at least one person in the dyad. Finally, Marriage Care was developed by Air Force chaplains in 2008 (Pawlyk, 2014), although little information is available on the content that differentiates this program from the curriculums used by the other military branches.

Study Rationale

Although there is a wealth of program evaluation research and meta-analyses suggesting marital enrichment programs improve relationship satisfaction and functioning (Blanchard et al., 2009, Hawkins et al., 2008; Jakubowski et al., 2004; Reardon-Anderson et al., 2005), there is no research on the effect of the OXYGEN program in relationship outcomes. Additionally, any outcomes will be further supported through the use of a randomized control design. Finally, there is a current lack of existing research on the impact of demographic moderators on MEP efficacy (Markman & Rhoades, 2012; Stanley et al., 2014). The data collected here may be used in further research to expand the current body of research on MEP efficacy.

Hypotheses

The present study measured the potential benefit of the OXYGEN program on marital quality within active military couples. The study design is an experimental only program evaluation. Participants marital quality was assessed before and after attending the OXYGEN seminar. There are four hypotheses for this study:

H1: Participants in the program will report an increase in relationship satisfaction in their marital relationship at posttest, relative to baseline.

H2: Participants in the program will report an increase in relationship dedication at posttest, relative to baseline.

H3: Participants in the program will report an increase in satisfaction with sacrifice in their marital relationship at posttest.

H4: For program participants, higher satisfaction ratings of the program will be associated with better marital outcomes (relationship satisfaction and dedication) at posttest relative to baseline.

Chapter 2

The present study evaluated the potential benefit of the OXYGEN program on marital quality within active duty military couples. The study design is an experimental only program evaluation of a virtual marriage enrichment program. Data collection occurred at two time points (pretest and posttest). Participants' marital quality was assessed before and after attending the OXYGEN seminar. Data were gathered through use of the survey method. This current study is the first phase of a larger program evaluation, which will include additional measures on program implementation and participant feedback about the intervention. Due to the sensitive nature of the information gathered, survey data were kept confidential but not anonymous as there was a need to collect identifying information to track data. There is also the benefit of gathering data electronically, thus allowing the researchers to gather data from a multitude of military bases and to track individual changes over time.

Participants

Participants were recruited via social media and word of mouth, with no limits to geographical location or branch of the U.S. military. For these recruitment methods, information was provided on study objectives, participant qualifications, participation requirements, compensation, and a link to an online screening questionnaire. To be eligible for the study, both participants had to be in a heterosexual marriage, be at least 18 years of age or older, and have not participated in Stronger Families or a similar program prior to this study. At least one partner in the dyad was required to be an Active Duty servicemember.

In the initial pretest, there were 47 participants who met study inclusion criteria, consented to participate in the study, and completed the pretest. From this sample, 28 participants attended the OXYGEN seminar. Of these 28 participants, there were 13 couples and two people who attended on their own without their partner. From these participants, only 27 participants completed the posttest survey. Of the 27 participants (14 female, 13 male), there were 12 couples, two people who attend the seminar without their partner, and one person who attended the seminar with their partner but did not complete the posttest. Only data from those participants who attended the seminar and completed the posttest were used in analyses.

Measures

All participants were asked to complete a demographic questionnaire (see Appendix A), the Couples Satisfaction Index (CSI-4; see Appendix B), and the Revised Commitment Inventory – Dedication subscale and Satisfaction With Sacrifice subscale (see Appendix C). As seen in Tables 1 and 2, the demographics questionnaire gathered information on the participant's sex, age, ethnicity, education level, assigned military installation, and number of years they have been currently married. Participants were also asked the number of times they have been married, current rank if they were an active duty soldier, family income level, and number of children living in their home more than half time.

Sample Characteristics

Table 1

Frequencies and Percentages of Participant Demographic Information

Variable	<i>n</i>	%
Age		
18-25	2	7.4
26-30	8	29.6
31-35	8	29.6
36-40	4	14.8
41 and older	5	18.5
Educational level		
Some high school, no diploma	1	3.7
High School diploma or GED	7	25.9
Associate degree	3	11.1
Bachelor's degree	9	33.3
Master's degree	6	22.2
Doctorate degree (PhD, EdD)	1	3.7
Race and ethnicity		
Caucasian	15	55.6
Ethnically of Hispanic/Latino origin	5	18.5
Asian	1	3.7
Two or more races	6	22.2
Family Income		
\$25,000-\$39,000	6	22.2
\$35,000-\$49,999	4	14.8
\$50,000-\$74,999	6	22.2
\$75,000-\$99,999	3	11.1
\$100,000-\$149,999	7	25.9
\$150,000 or more	1	3.7
Military Rank		
E1-E4	3	11.1
E5-E9	9	33.3
O1-O5	2	7.4
I am not an Active Duty member but my spouse is	13	48.1

Table 2*Means and Standard Deviations of Participant Demographic Information*

	Range	<i>M</i>	<i>SD</i>
Number of times married	1–4	1.30	.67
Length of marriage (years)	< 1–23	8.69	6.54
Children	1–4	2.41	1.22

Couples Satisfaction Index

The Couples Satisfaction Index (CSI) is a 4-item self-report measure that assesses relationship satisfaction (Funk & Rogge, 2007). The CSI was created using item response theory by selecting items from a variety of existing marital satisfaction scales, a few of which include the Marital Adjustment Test (MAT), the Dyadic Adjustment Scale (DAS), and the Quality of Marriage Index (QMI). The response format is a Likert scale (0 = *always disagree* to 5 = *strongly agree* and 0 = *not at all true* to 5 = *completely true*). The only exception is the first question, which asks the participant to rate their degree of happiness in the relationship on a scale from 1 to 6. Another example of an item is “I have a warm and comfortable relationship with my partner.” The possible range of the summary score is 0 to 21, with scores summed across all items. A score below 13.5 indicates relationship discontent. This scale is shown to have high convergent validity to other relationship satisfaction measures. Reliability has been .94 in a study by Edwards-Stewart et al. (2018). An analysis by Funk and Rogge (2007) determined the CSI has increased precision and power to detect meaningful change over the MAT and DAS.

Revised Commitment Inventory-Satisfaction With Sacrifice Subscale

This 6-item scale is a subscale of the Revised Commitment Inventory (Owen et al., 2011; Stanley & Markman, 1992) intended to measure participants’ degree of satisfaction with their sacrifice in an intimate relationship (e.g., “It can be personally

fulfilling to give up something for my partner”). Each item is rated on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*), with three of the items reverse scored. For analysis purposes, a mean score was obtained. Reliability has been found at $\alpha = .74$ (Stanley et al., 2006).

Revised Commitment Inventory-Dedication Subscale

This 8-item scale is a subscale of the Revised Commitment Inventory (Owen et al., 2011; Stanley & Markman, 1992) intended to measure participants’ long-term view of their intimate relationship and their dedication to making the relationship a priority (e.g., “I want this relationship to stay strong no matter what rough times we encounter”). Each item is rated on a 7-point Likert scale (1 = *almost never* to 7 = *almost always*), with four of the items reverse scored. For analysis purposes, a mean score was obtained. Reliability has been found at .86 for women and .81 for men (Owen et al., 2011).

Overview of OXYGEN, a Stronger Families Seminar

Stronger Families is an organization formed by Noel and Karissa Meador with the goal of bringing “life-changing relationship skills to military, first responder, and veteran families so they can be strong and thrive” (Stronger Families, 2021, “Our Mission”). Their marriage enrichment program, OXYGEN, is available through a 9-hour seminar led by a master-level trainer or a military chaplain. It is a psychoeducational program with experiential activity components, including group and couple activities. The programming aims to help couples to “enhance communication, build empathy, resolve conflict and rekindle your romance—right now and for years to come” (Stronger Families, 2021, “OXYGEN Seminar for Couples”).

Theoretical Basis of the OXYGEN Program

OXYGEN is a psychoeducational program with two essential components: the online Couple Checkup assessment and the 9-hour seminar that uses didactic learning and skill building exercises to strengthen marriages. The Couple Checkup evaluates several aspects of an individual and their relationship. The SCOPE personality profile is based on the five factor model of personality (Costa & McCrae, 1992; Goldberg, 1990). Each member of the couple is provided with a high, medium, or low score in the following areas: social, change, organized, pleasing, and emotionally steady. The SCOPE personality profile is used to provide information on the way certain similarities or differences may play out in the relationship. Additionally, the Couple Checkup evaluates each participant's relationship closeness and flexibility, based on the circumplex model of marital and family systems (Olson, 2000). In this model, closeness is defined as the level of emotional bonding one feels toward your spouse, and flexibility is defined as the capability to be flexible in response to life stressors. Couples can range from disconnected to overly connected on the closeness dimension, and inflexible to overly flexible on the flexibility dimension. Ideally, each member of the dyad would have balanced levels of closeness and flexibility. A disconnected individual is emotionally distant, and couples that are overly connected are emotionally enmeshed. Individuals who are at either extreme of the flexibility dimension may be chaotic or overly rigid when navigating life tasks.

Program Format

For the standard OXYGEN seminar, each couple is asked to take the online Couple Checkup assessment created by Prepare/Enrich (Olson et al., 2008) prior to

attending the event. The Couple Checkup is a combination of the SCOPE (social, change, organized, pleasing, and emotionally calm) personality scale and an evaluation of a person's perception of the flexibility and cohesion within their intimate relationship. The assessment also measures a couple's satisfaction and concerns in the following areas: communication, conflict resolution, financial management, sexual relationship, spiritual beliefs, leisure activities, sexuality and affection, family and friends, and roles and responsibilities (Olson et al., 2009).

The following are the eight seminar modules and a description of their focus:

1. Understanding and Building on Our Differences – identifying emotional and relational needs of men and women, from the *Love & Respect: The Love She Most Desires; The Respect He Desperately Needs* (Eggerichs, 2004)
2. Check Your Pulse: Reviewing the Couple Checkup – reviewing the relationship strength and growth areas (communication, conflict resolution, financial management, sexual relationship, spiritual beliefs, leisure activities, sexuality and affection, family and friends, and roles and responsibilities) from the Couple Checkup
3. Understanding and Applying the OXYGEN Profile Assessment – reviewing the SCOPE personality profile from the Couple Checkup; identifying how to respond to, relate to, and reinforce your partner based on their personality profile
4. Great Communication: Love, Respect, Empathy – learning and practicing communication skills, based on the Imago dialogue technique of mirroring, validation, and empathy (Hendrix & Hunt, 2019)

5. Putting Out Fires: Communication Through Conflict – identifying personal maladaptive conflict resolution tactics, and communication during conflict resolution
6. Seven Keys to Incredible Sex – building emotional/relational intimacy and identifying preferred modes of receiving and expressing love, based on the 5 *Love Languages* (Chapman, 1992)
7. Forgiveness Matters – asking for and granting forgiveness
8. Creating Your Relationship Game Plan – putting knowledge into practice, identifying a support system, sharing your relationship experience to help others

Due to the COVID-19 pandemic, the OXYGEN seminar for this study was given in an online videoconferencing format (Zoom) and the seminar was reduced to four modules that were completed in 4 hours. Additionally, the study was an experimental only research design due to challenges in recruitment for a virtual only study. Modules included in this seminar were Understanding and Building on Our Differences; Great Communication: Love, Respect, Empathy; Putting Out Fires: Communication Through Conflict; and Seven Keys to Incredible Sex. Additionally, the Couples Checkup was not a part of the shortened seminar.

The seminar that was part of this study was facilitated by Sean Sanberg, who is the director of training at Strong Families. He has worked for Stronger Families for over 5 years and is responsible for creating and coordinating training events for program facilitators, which are typically military chaplains. Throughout the seminar, the facilitator presented information from each module and included interactive group activities. When

presenting information, he used personal examples of his own relationship to show the applicability of the information. Additionally, for each module, couples were given time to come together and discuss information or practice skills from the module (BREAKOUTS). An example of a BREAKOUT activity from the first module (Understanding Difference and Building on Our Differences) is the Emotional Needs in Marriage Exercise. Couples were directed to individually write down their top 5 emotional needs from a list provided in the seminar participant guide, as well as a guess of their spouse's top 5 emotional needs. Next, individuals were invited to review their lists with their spouse and discuss the impact of having one of their needs met.

At the end of each module, couples were allotted time to make a specific plan to further address or discuss each of the seminar topics (Action Plan). For example, at the conclusion of the first module, couples were directed to write down one practical way to meet one of their partner's emotional needs for the following week.

Program Fidelity and Evaluation

A variety of measures was used to assess fidelity of the implementation, as well as participants' experience and satisfaction with the program.

Implementation Fidelity

The seminar facilitator was asked to complete a checklist following program delivery to document completion of each unit's essential elements, such as coverage of specific content and facilitation of interactive activities.

Program Dosage

Participants receiving the OXYGEN program were queried at posttest about the percentage of the seminar they attended. Although it is anticipated participants will attend

the duration of the seminar, this item will allow verification of the “dosage” they received (see Appendix E).

Participant Feedback About the Program

Participants were administered 22 items from a program feedback questionnaire at posttest taken from the Allen et al. (2017) evaluation (see Appendix E). The questionnaire covered the following areas: perceptions of the program, such as satisfaction and helpfulness; perception of the leader’s skill and effectiveness; intention toward and confidence in use of the skills taught in the program; and the extent to which program participation may have impacted their lives (e.g., confidence in their marriage). The response format is a 7-point Likert rating with anchors appropriate to the particular item (e.g., *least helpful* or *less true* to *most helpful* or *more true*). The only exception to the response format is the item related to the leader’s effectiveness which uses a 5-point rating (*needs improvement* to *excellent*). Allen et al. reported utility in the helpfulness of communication skill training, as well as confidence and intention items, for positively predicting 1-year outcomes. Allen et al. provide blanket permission for me to use and adapt their program feedback questionnaire in their 2017 article.

Study Procedures

Initial Screening

Interested participants were directed to access the online screening questionnaire to ensure they met study eligibility criteria. The screening questionnaire (including the participant’s age, sex, marital status, sex of their spouse, if the participant or their spouse are an Active Duty member, and if they have participated in a marital enrichment program with their spouse in the past. If the participant passed the screening

questionnaire, they were requested to enter their email address and that of their spouse. Eligible participants and their spouses were sent a unique link to an informed consent form detailing the study objectives, participant commitment, compensation, and the benefits and risks of participation. A reminder email and text message was sent to individuals who did not respond after 3 days. Google Voice was used to send text reminders to complete the consent form or surveys to participants individually; no mass texts were used to protect participant privacy. No identifying information was included in the brief text reminder to participants, with the exception of participants' first names, so they were less likely to view the text message as spam. The study's text history was deleted following completion of the study, prompting removal of the data from the encrypted Google storage and servers. Identifying information about participants was kept confidential and an identifying number was used for the duration of the study to link participant data.

Data Collection and Compensation

Access to the baseline questionnaire was provided only after participants electronically signed the consent form. Both members of the dyad were required to sign the consent form before the baseline survey could be sent. Upon completion of the baseline assessment, each participant was directed to a separate survey (see Appendix H) where they are asked for an email where they would like to be sent the gift card. Both members of a dyad were required to complete the baseline questionnaire to receive compensation. If both members of the dyad completed the baseline survey, each member was emailed a code for a \$10 digital gift card. Thus, participant responses were not linked to who receives the gift cards. Digital gift cards were redeemable with a variety of

vendors through RewardsGenius.com, an online platform for dispensing gift cards that uses the highest level of security and encryption to protect recipients' privacy.

Recipients' emails are protected and not shared with any external entity by Rewards Genius.

After attending the OXYGEN seminar with their spouse, participants were emailed 2 days later with instructions to complete the posttest survey within 1 week. Reminder emails and text messages were sent daily to participants who did not yet complete the posttest survey. Upon completion of the follow-up assessment, each participant was emailed a code to redeem a \$15 gift card.

Summary

The present study evaluated the efficacy of a marriage enrichment program for active duty military couples. A number of measures were used in the study to assess relationships satisfaction, relationship dedication, satisfaction with sacrifice, and satisfaction with the OXYGEN seminar. Data were gathered through the use of the survey method and carried out at two data points: baseline and posttest. Following baseline data collection, participant couples were asked to attend the online 4-hour OXYGEN program. Participants had the opportunity to receive a \$10 gift card after the completion of the baseline survey, and a \$15 gift card after attending the seminar and completing the posttest survey no more than a week after the seminar.

Chapter 3

The present study measured the potential benefit of the OXYGEN program on marital quality within active duty military couples. Marital quality was assessed before and after OXYGEN seminar by measuring participant relationship satisfaction, relationship dedication, and satisfaction with sacrifice. Additionally, participants were asked to complete program evaluation ratings as part of the posttest survey. The study design is an experimental only program evaluation.

Data Preparation

Following completion of data collection, items on the CSI-4 for the baseline and posttest surveys were summed to obtain a total score for each participant. The possible range of the summary score is 0 to 21, with high scores indicating higher relationship satisfaction. For analysis purposes, a change score was created by subtracting the baseline CSI-4 sum from the posttest CSI-4 sum. For the Revised Commitment Inventory (RCI) – Satisfaction With Sacrifice subscale and Dedication subscale, mean scores were obtained. For analysis purposes, a change variable was created by subtracting the baseline Satisfaction with Sacrifice mean from the posttest mean. A third variable was created by transforming the Dedication pretest mean and posttest mean into a natural log to reduce skewness. Then, the baseline Dedication mean was subtracted from the posttest mean to create a Dedication logarithmic summary change variable.

Analytic Strategy

For hypotheses H1, H2, and H3, data were analyzed via a one sample *t* test to determine whether there were any differences in relationship satisfaction, satisfaction with sacrifice, and dedication across two different time periods (T_0 and T_1). A linear

regression analysis was used to determine whether satisfaction with the seminar was related to changes in relationship satisfaction and relationship dedication.

Relationship Characteristics and Program Satisfaction

Table 3 illustrates the descriptive statistics for each of the dependent variables, broken down by biological sex of the participants, with data shown for the baseline and posttest. Figures 1 and 2 showcase the changes that occurred from pre- to post-test of the three scales. Although 28 participants attended the seminar, only 27 participants completed the posttest measures and the program evaluation questions. Program fidelity was ensured via verification with the seminar facilitator and attendance by the researchers. Moreover, participants were asked to report the percentage of the seminar attended as part of the posttest survey.

Table 3

Relationship Variables and Program Satisfaction

	Pretest Means	Posttest Means
Couples Satisfaction Index-4		
All participants $N = 27$	13.48 ($SD = 5.39$)	14.41 ($SD = 5.52$)
Females $n = 14$	13.43 ($SD = 6.32$)	14.00 ($SD = 6.99$)
Males $n = 13$	13.54 ($SD = 4.43$)	14.85 ($SD = 3.56$)
Revised Commitment Inventory-Dedication		
All participants $N = 27$	6.17 ($SD = .90$)	6.26 ($SD = .91$)
Females $n = 14$	6.22 ($SD = .95$)	6.17 ($SD = 1.12$)
Males $n = 13$	6.12 ($SD = .87$)	6.36 ($SD = .64$)
Revised Commitment Inventory-Satisfaction w/ Sacrifice		
All participants $N = 27$	5.23 ($SD = 1.22$)	5.42 ($SD = 1.21$)
Females $n = 14$	5.18 ($SD = 1.23$)	5.26 ($SD = 1.31$)
Males $n = 13$	5.18 ($SD = 1.23$)	5.26 ($SD = 1.31$)
“Overall program satisfaction“		
Females $n = 14$		6.00 ($SD = 1.41$)
Males $n = 13$		6.43 ($SD = 1.16$)

On average, participants experienced notable relationship dissatisfaction at baseline (scoring below 13.5 on the CSI-4). It should be noted that for females, the mean relationship dedication decreased from pretest ($M = 6.22$) to posttest ($M = 6.17$). A correlational matrix with correlations among the relationship quality variables is shown in Table 4.

Table 4

Correlational Matrix for Relationship Characteristics

	CSI-4 T0	Dedication T0	Satisfaction w/ Sacrifice T0	CSI-4 T1	Dedication T1	Satisfaction w/ Sacrifice T1
CSI-4 T0	-					
Dedication T0	.66**	-				
Satisfaction w/ Sacrifice T0	.38*	.38*	-			
CSI-4 T1	.83**	.63**	.21	-		
Dedication T1	.74**	.83**	.31	.82**	-	
Satisfaction w/ Sacrifice T1	.33	.39*	.77**	.37	.44*	-

* $p < .05$

** $p < .01$

Figure 1

Pretest to Posttest Mean of the Couples Satisfaction Index (CSI-4)

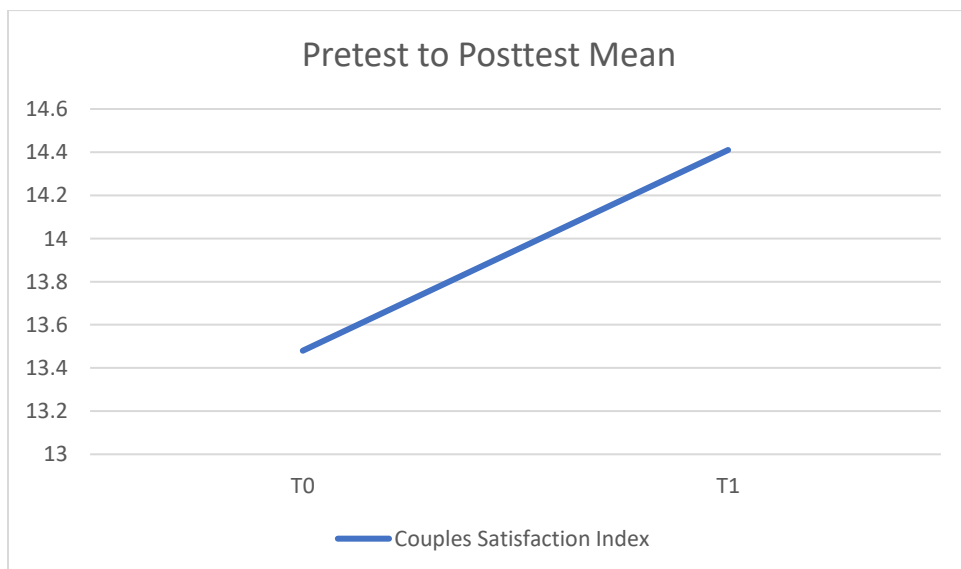
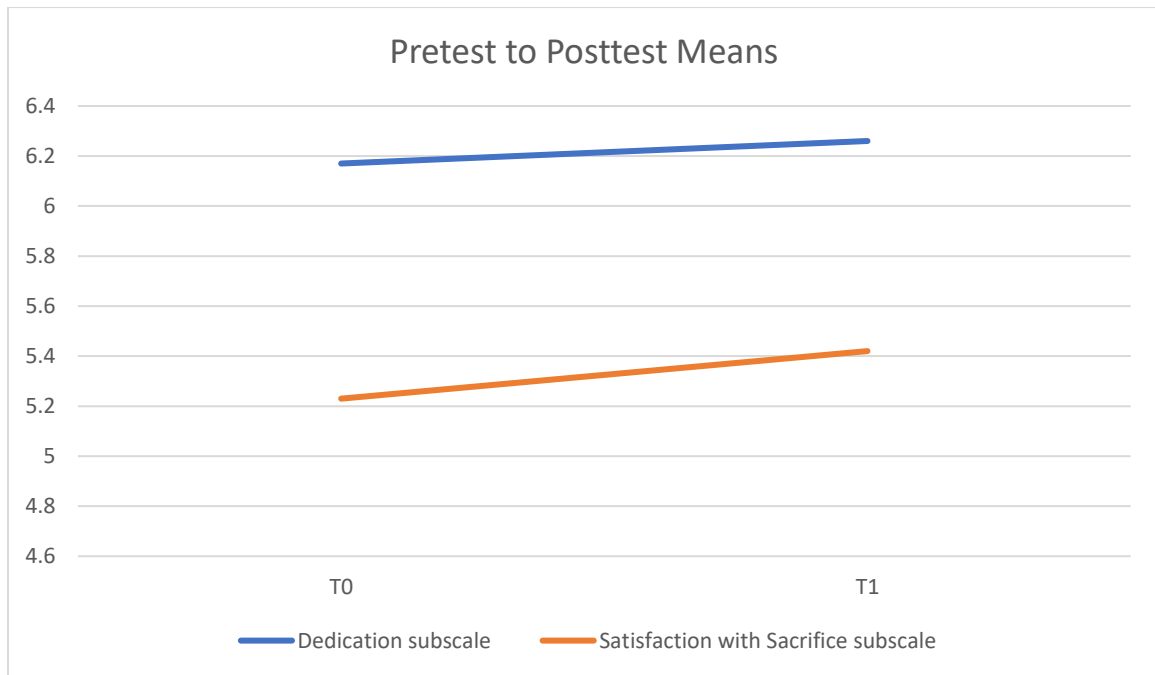


Figure 2

Pretest to Posttest Mean of the Dedication and Satisfaction With Sacrifice Subscales



Relationship Characteristics Following the OXYGEN Seminar

Hypothesis 1: Couple Satisfaction

For the first hypothesis, a one sample t test was conducted to evaluate whether the pre- to post-test difference of the Couples Satisfaction Index-4 scores was significantly different than 0. A test value of 0 was used to test the null hypothesis that little to no change occurred from attending the intervention. The sample mean of .93 ($SD = 3.16$) was not significantly different from 0, $t(26) = 1.52, p = .14$. The 95% confidence interval for the CSI-4 posttest score minus CSI-4 pretest mean ranged from -.32 to 2.18. The effect size d of .29 indicates a small effect of the seminar on the participants.

Hypothesis 2: Relationship Dedication

For the second hypothesis, a one sample t test was conducted to evaluate whether the logarithmic pre- to post-test difference of the Dedication subscale scores was

significantly different than 0. A test value of 0 was used to test the null hypothesis that little to no change occurred from attending the intervention. The sample mean of .01 ($SD = 0.10$) was not significantly different from 0, $t(26) = .77, p = .45$. The 95% confidence interval for the Dedication T1 score minus Dedication T0 mean ranged from -.02 to .05. The effect size d of .15 indicates no effect.

Hypothesis 3: Satisfaction With Sacrifice in a Relationship

A one sample t test was used to evaluate the pre- to post-test difference of the Satisfaction With Sacrifice subscale scores. A test value of 0 was used because I expected little to no change from attending an intervention with a weak dosage. The sample mean of .13 ($SD = .84$) did not differ from 0, $t(26) = .81, p = .43$, Cohen's $d = .16$, indicating a negligible difference. The 95% confidence interval for the Satisfaction With Sacrifice T1 score minus Satisfaction With Sacrifice T0 mean ranged from -.20 to .46.

Hypothesis 4: Program Satisfaction

For the fourth hypothesis, a linear regression analysis was conducted to evaluate whether the OXYGEN seminar satisfaction rating was associated with relationship satisfaction and dedication to their partner after the seminar, over and above biological sex and pretest scores. The seminar satisfaction rating was not predictive of relationship satisfaction posttest scores after controlling for biological sex and pretest relationship satisfaction scores, R^2 change = .03, $F(1,23) = 2.54, p = .12$. Additionally, the seminar satisfaction rating was not predictive of relationship dedication at posttest after controlling for biological sex and pretest dedication scores, R^2 change = .02, $F(1,23) = 1.35, p = .26$.

Summary

This aim of these analyses was to determine if any change occurred in participants' reported relationship characteristics or perspectives following seminar attendance. After attrition, the sample was comprised of 27 participants who completed the pre- and post-test measures, and attended the seminar. For measures of couple satisfaction, there was a small effect size. However, the *t*-test results indicated changes from pre- to post-test on measures of couples satisfaction, relationship dedication, and satisfaction with sacrifice were not statistically significant.

Chapter 4

The purpose of this chapter is to review the results of the study regarding any potential changes that occurred in participants' perspective and attitudes of their relationship following seminar attendance. This chapter will also touch upon the implications of these results within the broader research literature on psychoeducation focused couples seminars. Lastly, there will be a discussion of the limitations of the current study and suggestions for future search needed in the field.

Program Evaluation Results

Relationship quality can be measured through many factors, such as emotional intimacy, commitment, effective communication and conflict resolution, or perceptions of mutual trust and support. For this specific study, measures of satisfaction, dedication, and satisfaction with sacrifice were used to evaluate the effectiveness of the program on marital quality in active duty couples. As data would be collected only at the pre- and post-test time points, it was important to measure aspects of a relationship that could potentially change after the intervention. Conversely, skills like communication skills and conflict resolution would be better measured in a longitudinal study as this would allow couples to potentially use some of the learned skills from the seminar. As Shaver and Mikulincer (2002) suggested, factors such as personal attachment style can change over time, but relationship satisfaction can be seen as a snapshot of an individual's current perception of their relationship.

In this study, there were no significant improvements in relationship satisfaction, dedication, and satisfaction with sacrifice at post-test. This was likely due to the small sample size obtained ($N = 27$). Furthermore, results for the Couples Satisfaction Index-4

indicated a small effect size. Although the small sample size limited statistical significance, a modest improvement was reported in couple satisfaction after seminar attendance. The intervention appeared to have no effect on the relationship dedication and satisfaction with sacrifice of the participants. Lastly, satisfaction with the seminar did not predict changes in relationship satisfaction or dedication.

The efficacy of relationship education programs can be moderated by several factors such as the focus of program content, program format (weekend seminar or a multiweek class series), individual characteristics of the participants, relationship dynamics of the couple, overall satisfaction with the program, and satisfaction with the class facilitator. In this study, overall ratings of general satisfaction with the OXYGEN seminar did not predict changes in relationship satisfaction and dedication to one's partner. This is in contrast to findings by Owen et al. (2014), in which positive ratings of the program by participants were predictive of marital and communication skill quality at six months post seminar. It is possible the same findings did not occur in this study as the intervention in the Owen et al. study was a 16-hour, in-person, relationship education program delivered to low-income individuals. The intervention in the present study was a 4-hour, virtually delivered program.

Other shorter, web-based interventions designed to strengthen couples' relationships have been shown to improve relationship functioning, specifically ePREP and the OurRelationship program. ePREP used with a sample of college students and a community sample of couples was successful in decreasing self-and partner-reported assault and physical aggression (Braithwaite & Fincham, 2011, 2014). OurRelationship is a program based on integrative couple therapy, and has been shown to significantly

improve relationship satisfaction and confidence, relative to a wait list control group (Doss et al., 2016). The ePrep program features 6 hours of online content, and it is completed over 6 weeks with an additional 1 hour of homework per week. There is also a virtual meeting with a coach every other week where participants practiced the skills learned during the didactic portion. The OurRelationship program also had coach calls, and about 7 hours of content disseminated over 6 weeks. In a study of low-income couples, both the ePREP and OurRelationship groups experienced significantly greater improvement in areas of satisfaction, intimate partner violence, intimacy, conflict, and breakup potential when compared to a control group. Although effects were maintained at the 4-month follow-up for both groups, neither intervention reduced relationship breakups at the 6-month mark, when compared to a control group (Doss et al., 2020). A qualitative study into the perceived impact of PREP on marital satisfaction by Pierce (2016) suggested the follow-up portion of the program (couples could request phone support and home visits from the facilitator) helped participants in using learned skills to resolve conflicts after the seminar.

Although the intervention used in this study was 4 hours, this was delivered all at once, instead of over several weeks. Additionally, there was no follow-up coaching or after-seminar homework assignments for participants. Thus, it is possible there would have been significant positive changes in relationship quality if this iteration of the OXYGEN program was kept as the original 8-hour version but delivered over a period of 8 weeks and included follow up coaching or weekly emails/texts with reminders to practice the skills learned in the module that week.

Study Limitations

There were several limitations in this study, including but not limited to: lack of a control group, intervention dosage, and small sample size. Due to the COVID-19 pandemic, the study design was changed from an 8-hour in person seminar to a 4-hour virtual class. The rationale for this format change was to conduct a seminar that was engaging, informative, and supported social distancing, but not at the cost of “Zoom fatigue” from prolonged virtual engagement. In his research on videoconferencing interaction, Bailenson (2021) theorized the excessive amounts of eye contact, seeing oneself in the video camera, reduced physical mobility, and increased cognitive load through overemphasizing nonverbal signals can lead to general, emotional, physical, and motivational fatigue. Thus, a shortened seminar format, while omitting some modules, was a balance between minimizing the cognitive, emotional, and physical effects of prolonged videoconferencing to participants while still providing them with a marriage enrichment program.

Next, multilevel modeling is the ideal analysis method for research with couples as it accounts for within couple and between couple events (Preciado et al., 2016) but it was not used in this study due to the small sample size. The small sample size was another limitation. There were only 27 participants who completed a pretest survey, attended the seminar, and completed a posttest survey. With the small sample size of this study, there were other factors limiting the applicability of this study’s results, such as a lack of sociodemographic diversity among participants. Participants were primarily White, and all of them were heterosexual.

Finally, the intervention dosage was relatively small. The traditional format of the OXYGEN seminar is an 8-hour, in-person seminar, that is typically completed over a weekend in a location away from home. In a meta-analysis by Hawkins, Stanley, et al. (2012), the strongest effects occurred when couples were required to attend a moderate dosage program (between 9–20 hours of a relationship psychoeducation program, or a program that was at least 10 sessions long). When compared to low dosage programs (1–8 hours), the moderate dosage programs had larger effect sizes and statistically significant differences. Because the program in this study was only 4 hours, the lack of significant results and small to nonexistent effect sizes among different measures is not surprising as it is in line with previous research.

Most studies of MEPs are comprised of White, middle class, married participants who do not experience severe relationship distress (Hawkins, Stanley, et al., 2012). Baseline relationship satisfaction is known to be related to seminar dosage effects, in that couples with high baseline relationship satisfaction required to attend low intensity programs (five sessions) had slower decline in satisfaction than couples required to attend an intensive 16 session program (Williamson et al., 2015). Typically couples with lower levels of baseline satisfaction will decline less rapidly in satisfaction than couples with higher relationship satisfaction. However, couples who presented with risk factors such as physical aggression and substance use in the relationship did not benefit as much from MEPs compared to couples without high risk factors. For the present study, the average participant relationship satisfaction at baseline ($M = 13.48$) suggested significantly low relationship satisfaction. A score below 13.5 on the CSI-4 indicated relationship dissatisfaction. When looking at gender differences, female participants had a lower

baseline relationship satisfaction ($M = 13.43$) than males ($M = 13.54$). This study could have benefitted from identifying couples who had physical aggression, hostile conflict, and substance use in the relationship, so results of these couples could have been compared against couples who had relatively low relationship satisfaction but did not present with these risk factors.

Additionally, the Couple's Checkup assessment (created as part of the PREPARE/ENRICH program) and subsequent discussion of results was not part of the seminar in this study. This assessment served to identify a couple's strengths, weaknesses and preferences. Research by Knutson and Olson (2003) showed between couples who participated in the premarital PREPARE program and completed the assessment with four feedback sessions (PREPARE Program group), couples who completed the program and assessment but did not receive assessment feedback (PREPARE No Feedback group), and couples who completed the premarital program but did not do the assessment or feedback (Waiting List Control group), only the groups who completed the Couples Checkup (PREPARE Program and PREPARE No Feedback) showed significant improvement in couple satisfaction. Thus, the assessment is a key part of couple outcomes. Also, the PREPARE Program group showed improvement on 10 out of 13 scales on the Couples Checkup while the PREPARE No Feedback group showed improvement on only 4 out of 13 scales. In addition to completing the Couples Checkup, the feedback sessions were also beneficial in improving outcomes in premarital couples.

Two participants attended without their respective spouse. As experiential couples exercises were a considerable part of the seminar experience, these participants did not

obtain the full seminar experience. It is anticipated having all participants attending with their partner would have likely led to the best test of the program.

Conclusion and Future Direction

The quality of life of the family unit has been recognized as being vital to the enlistment, retention, and mission readiness of the U.S. military (Rosen & Durand, 1995). Psychoeducational seminars focusing on teaching relationship skills and building intimacy is one such attempt at improving current marriage quality and preventing relationship discord (Blanchard et al., 2009). Improving access to online based couples intervention programs can address several barriers to attending such programs, including costs of transportation and childcare, and lack of availability of clinicians who specialize in military relationships. This mode of programming also has potential to be a cost effective option for targeting relationship distress, either as a step down from in-person therapy or as an independent service (Salivar et al., 2020).

The current study did not find significant improvements in relationship satisfaction, satisfaction with sacrifice and dedication post seminar. These results were not unexpected given the small sample size and short intervention (4 hours). While immediate perception of relationship satisfaction and other such factors could be assessed, it is difficult to ascertain the preventative outcomes (e.g., relationship distress, divorce) of this specific intervention without follow up testing at different time intervals. Although demographic data were collected on the present participants, analyses to determine the role of these demographic variables as moderators on the impact of the OXYGEN program was beyond the scope of this study. More research is needed in this field to determine which factors, if any, can predict the outcome of psychoeducation

based programs for couples. As couples education research is comprised of predominantly heterosexual, married couples (including the present study) further research is needed to determine the generalizability of outcomes to other non-heterosexual, nonmarried relationships such as cohabitating couples, polyamorous relationships, and couples in the LGBT community.

References

- Adler-Baeder, F., Pittman, J., & Taylor, L. (2006). The prevalence of marital transitions in military families. *Journal of Divorce and Remarriage*, *44*(1), 91–106. https://doi.org/10.1300/J087v44n01_05
- Allen, E. S., Post, K. M., Markman, H. J., Rhoades, G. K., & Stanley, S. M. (2017). Associations between participant ratings of PREP for strong bonds and marital outcomes 1 year postintervention. *Military Psychology*, *29*(4), 283–293. <https://doi.org/10.1037/mil0000155>
- Allen, E. S., Rhoades, G. K., Markman, H., & Stanley, S. (2015). PREP for Strong Bonds: A review of outcomes from a randomized clinical trial. *Contemporary Family Therapy: An International Journal*, *37*(3), 232–246. <https://doi.org/10.1007/s10591-014-9325-3>
- Allen, E. S., Rhoades, G. K., Stanley, S. M., Loew, B., & Markman, H. J. (2012). The effects of marriage education for army couples with a history of infidelity. *Journal of Family Psychology*, *26*(1), 26–35. <https://doi.org/10.1037/a0026742>
- Amato, P. R., & Previti, D. (2003). People's reasons for divorcing: Gender, social class, the life course, and adjustment. *Journal of Family Issues*, *24*(5), 602–626. <https://doi.org/10.1177/0192513X03254507>
- Anderson, J. R., Johnson, M. D., Goff, B. N., Cline, L. E., Lyon, S. E., & Gurss, H. (2011). Factors that differentiated distressed and nondistressed marriages in Army soldiers. *Marriage & Family Review*, *47*(7), 459–473. <https://doi.org/10.1080/01494929.2011.619301>

- Atkins, D. C. (2005). Using multilevel models to analyze marital and family treatment data: Basic and advanced issues. *Journal of Family Psychology, 19*(1), 98–110.
<https://doi.org/10.1037/0893-3200.19.1.98>
- Badr, H., Barker, T. M., & Milbury, K. (2011). Couples' psychosocial adaptation to combat wounds and injuries. In S. MacDermid-Wadsworth & D. Riggs (Eds.), *Risk and resilience in U.S. military families* (pp. 213–234). Springer.
- Bailenson, J. N. (2021). Nonverbal overload: A theoretical argument for the causes of Zoom fatigue. *Technology, Mind, and Behavior, 2*(1).
<https://doi.org/10.1037/tmb0000030>
- Balderrama-Durbin, C., Snyder, D. K., Cigrang, J., Talcott, G. W., Tatum, J., Baker, M., Cassidy, D., Sonnek, S., Heyman, R. E., & Smith Slep, A. M. (2013). Combat disclosure in intimate relationships: Mediating the impact of partner support on posttraumatic stress. *Journal of Family Psychology, 27*(4), 560–568.
<https://doi.org/10.1037/a0033412>
- Basham, K. (2008). Homecoming as safe haven or the new front: Attachment and detachment in military couples. *Clinical Social Work Journal, 36*(1), 83–96.
<https://doi.org/10.1007/s10615-007-0138-9>
- Baucom, D. H., Hahlweg, K., Atkins, D. C., Engl, J., & Thurmaier, F. (2006). Long-term prediction of marital quality following a relationship education program: Being positive in a constructive way. *Journal of Family Psychology, 20*(3), 448–455.
<https://doi.org/10.1037/0893-3200.20.3.448>

- Blanchard, V. L., Hawkins, A. J., Baldwin, S. A., & Fawcett, E. B. (2009). Investigating the effects of marriage and relationship education on couples' communication skills: A meta-analytic study. *Journal of Family Psychology, 23*(2), 203–214. <https://doi.org/10.1037/a0015211>
- Bodenmann, G., Pihet, S., Shantinath, S. D., Cina, A., & Widmer, K. (2006). Improving dyadic coping in couples with a stress-oriented approach: A 2-year longitudinal study. *Behavior Modification, 30*(5), 571–597. <https://doi.org/10.1177/0145445504269902>
- Boertien, D., & Härkönen, J. (2014). Less education, more divorce: Explaining the inverse relationship between women's education and divorce. *Stockholm Research Reports in Demography, 11*, 1–52.
- Braithwaite, S. R., & Fincham, F. D. (2009). A randomized clinical trial of a computer based preventive intervention: Replication and extension of ePREP. *Journal of Family Psychology, 23*(1), 32–38. <https://doi.org/10.1037/a0014061>
- Braithwaite, S. R., & Fincham, F. D. (2011). Computer-based dissemination: A randomized clinical trial of ePREP using the actor partner interdependence model. *Behaviour Research and Therapy, 49*(2), 126–131. <https://doi.org/10.1016/j.brat.2010.11.002>
- Braithwaite, S. R., & Fincham, F. D. (2014). Computer-based prevention of intimate partner violence in marriage. *Behaviour Research and Therapy, 54*, 12–21. <https://doi.org/10.1016/j.brat.2013.12.006>

- Carter, C. (2018). *Healthy marriage and relationship education: Strengthening family bonds and increasing economic independence*. U.S. Department of Health and Human Services.
- Chapman, G. (1992). *5 love languages*. Northfield College.
- Cherlin, A. J. (1992). *Marriage, divorce, remarriage*. Harvard University Press.
- Cobb, R., & Sullivan, K.T. (2015). Relationship education and marital satisfaction in newlywed couples: A propensity score analysis. *Journal of Family Psychology*, 29(5), 667–678. <https://doi.org/10.1037/a0039580>
- Cohen, P. N. (2018). The coming divorce decline. *Socius: Sociological Research for a Dynamic World*, 5(10). <https://doi.org/10.1177/2378023119873497>
- Commander, Navy Installations Command. (n.d.). *Chapel support*. https://www.cnic.navy.mil/regions/cnrnw/installations/navbase_kitsap/about/installation-information/Chapel.html
- Cordova, J. V., Fleming, C. J., Morrill, M. I., Hawrilenko, M., Sollenberger, J. W., Harp, A. G., Gray, T. D., Darling, E. V., Blair, J. M., Meade, A. E., & Wachs, K. (2014). The marriage checkup: A randomized controlled trial of annual relationship health checkups. *Journal of Consulting and Clinical Psychology*, 82(4), 592–604. <https://doi.org/10.1037/a0037097>
- Costa, P., & McCrae, R. (2003). *Five factor model of personality*. Psychological Assessment Resources.

- Crosier, T., Butterworth, P., & Rodgers, B. (2007). Mental health problems among single and partnered mothers: The role of financial hardship and social support. *Social Psychiatry and Psychiatric Epidemiology*, 42(1), 6–13.
<https://doi.org/10.1007/s00127-006-0125-4>
- Davis, M. (2014, October 4). *The issued wife: The pros and cons of being married to the military*. Pensacola News Journal.
<https://www.pnj.com/story/news/military/2014/10/04/marketta-column/16752309/>
- Day, R. D. (2014). *Introduction to family processes* (5th ed.). Taylor and Francis.
- Defense Finance and Accounting Service. (2018). *Military pay tables*.
<http://www.dfas.mil/militarymembers/payentitlements/militarypaytables.html>
- Defense Manpower Data Center. (2017). *Demographics: Profile of the military community*. Department of Defense.
- Cherlin, A. J. (1992). *Marriage, divorce, remarriage*. Harvard University Press.
- Department of Defense. (2009). *Department of the Army personnel policy guidance for overseas contingency operations*. Retrieved December 12, 2018 from
<https://www.cpms.osd.mil/expeditionary/pdf/PPG.pdf>
- Department of the Army. (2005). *Consideration of others (CO2) handbook*. Office of the Deputy Chief of Staff for Personnel.
- Derochick, D. (2015). *From counsel: Kansas separation & divorce options*.
<http://www.riley.army.mil/Portals/0/Docs/Units/Staff/SJA/Legal/FC%20Separation%20and%20Divorce%20Options.pdf>

- Doss, B. D., Cicila, L. N., Georgia, E. J., Roddy, M. K., Nowlan, K. M., Benson, L. A., & Christensen, A. (2016). A randomized controlled trial of the web-based OurRelationship program: Effects on relationship and individual functioning. *Journal of Consulting and Clinical Psychology, 84*(4), 285–296.
<https://doi.org/10.1037/ccp0000063>
- Doss, B. D., Knopp, K., Roddy, M. K., Rothman, K., Hatch, S. G., & Rhoades, G. K. (2020). Online programs improve relationship functioning for distressed low-income couples: Results from a nationwide randomized controlled trial. *Journal of Consulting and Clinical Psychology, 88*(4), 283–294.
<https://doi.org/10.1037/ccp0000479>
- Duncan, B. L., & Rock, J. W. (1993). Saving relationships: The power of the unpredictable. *Psychology Today, 26*(1), 46–51, 86, 95.
- Duncan, S. F., Steed, A., & Needham, C. M. (2009). A comparison evaluation study of web-based and traditional marriage and relationship education. *Journal of Couple & Relationship Therapy, 8*(2), 162–180.
<https://doi.org/10.1080/15332690902813836>
- Edwards-Stewart, A., Rennebohm, S. B., DeSimone, J., Willey, B., Smolenski, D. J., & Hoyt, T. (2018). Relationship satisfaction and mental health treatment among active-duty military. *Couple and Family Psychology: Research and Practice, 7*(3–4), 201–211. <https://doi.org/10.1037/cfp0000108>
- Eggerichs, E. (2004). *Love & respect: The love she most desires; the respect he desperately needs*. Thomas Nelson.

Einhorn, L., Williams, T., Stanley, S., Wunderlin, N., Markman, H., & Eason, J. (2008).

PREP inside and out: Marriage education for inmates. *Family Process*, *47*(3),

341–356. <https://doi.org/10.1111/j.1545-5300.2008.00257.x>

Erbes, C. R., Polusny, M. A., MacDermid, S., & Compton, J. S. (2008). Couple therapy

with combat veterans and their partners. *Journal of Clinical Psychology*, *64*(8),

972–983. <https://doi.org/10.1002/jclp.20521>

Fauville, G., Luo, M., Queiroz, A. C. M., Bailenson, J. N., & Hancock, J. (2019).

Nonverbal mechanisms predict Zoom fatigue and explain why women experience higher levels than men. *SSRN*. Advance online publication.

<https://doi.org/10.2139/ssrn.3820035>

Fincham, F. D., & Beach, S. R. (1999). Conflict in marriage: Implications for working

with couples. *Annual Review of Psychology*, *50*(1), 47–77.

<https://doi.org/10.1146/annurev.psych.50.1.47>

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory:

Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*(4), 572–583.

<https://doi.org/10.1037/0893-3200.21.4.572>

Gewirtz, A. H., Polusny, M. A., DeGarmo, D. S., Khaylis, A., & Erbes, C. R. (2010).

Posttraumatic stress symptoms among National Guard soldiers deployed to Iraq:

Associations with parenting behaviors and couple adjustment. *Journal of*

Consulting and Clinical Psychology, *78*(5), 599–610.

<https://doi.org/10.1037/a0020571>

- Giaritelli, A. (2016). *Obama's Independence Day present for military spouses*. Washington Examiner. <https://www.washingtonexaminer.com/obamas-independence-day-present-for-military-spouses>
- Goldberg, L. R. (1990). An alternative “description of personality”: The big-five factor structure. *Journal of Personality and Social Psychology*, 59(6), 1216–1229. <https://doi.org/10.1037/0022-3514.59.6.1216>
- Graham, J. M., Diebels, K. J., & Barnow, Z. B. (2011). The reliability of relationship satisfaction: A reliability generalization meta – analysis. *Journal of Family Psychology*, 25(1), 39–48. <https://doi.org/10.1037/a0022441>
- Halford, W. K., & Bodenmann, G. (2013). Effects of relationship education on maintenance of couple relationship satisfaction. *Clinical Psychology Review*, 33(4), 512–525. <https://doi.org/10.1016/j.cpr.2013.02.001>
- Halford, W. K., Rahimullah, R. H., Wilson, K. L., Occhipinti, S., Busby, D. M., & Larson, J. (2017). Four year effects of couple relationship education on low and high satisfaction couples: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 85(5), 495–507. <https://doi.org/10.1037/ccp0000181>
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (2001). Can skills training prevent relationship problems in at-risk couples? Four-year effects of a behavioral relationship education program. *Journal of Family Psychology*, 15(4), 750–768. <https://doi.org/10.1037/0893-3200.15.4.750>

- Hannighofer, J., Foran, H., Hahlweg, K., & Zimmermann, T. (2017). Impact of relationship status and quality (family type) on the mental health of mothers and their children: A 10-year longitudinal study. *Frontiers in Psychiatry, 8*, Article 266. <https://doi.org/10.3389/fpsy.2017.00266>
- Harrell, C., Nelson, L., Castaneda, L., & Golinelli, D. (2004). *Working around the military: Challenges to military spouse employment and education*. RAND. https://www.rand.org/content/dam/rand/pubs/monographs/2004/RAND_MG196.pdf
- Hawkins, A. J., Blanchard, V. L., Fawcett, E. B., & Baldwin, S. A. (2008). Does marriage and relationship education work? A meta-analytic study. *Journal of Consulting and Clinical Psychology, 76*(5), 723–734. <https://doi.org/10.1037/a0012584>
- Hawkins, A. J., Stanley, S. M., Blanchard, V. L., & Albright, M. (2012). Exploring programmatic moderators of the effectiveness of marriage and relationship education programs: A meta-analytic study. *Behavior Therapy, 43*(1), 77–87. <https://doi.org/10.1016/j.beth.2010.12.006>
- Hawkins, A. J., Willoughby, B. J., & Doherty, W. J. (2012). Reasons for divorce and openness to marital reconciliation. *Journal of Divorce and Remarriage, 53*(6), 453–463. <https://doi.org/10.1080/10502556.2012.682898>
- Hendrix, H., & Hunt, H. (2019). *Getting the love you want: A guide for couples*. St. Martins Griffin.

- Hogan, P. F., & Seifert, R. F. (2010). Marriage and the military: Evidence that those who serve marry earlier and divorce earlier. *Armed Forces & Society, 36*(3), 420–438. <https://doi.org/10.1177/0095327X09351228>
- Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research, 11*(2), 213–221. [https://doi.org/10.1016/0022-3999\(67\)90010-4](https://doi.org/10.1016/0022-3999(67)90010-4)
- Hosek, J., & Martorell, P. (2011). Deployment, reenlistment intentions, and actual reenlistment: Single and married active-component service members. In S. MacDermid Wadsworth & D. Riggs (Eds.), *Risk and resilience in U.S. military families* (pp. 281–304). Springer. https://doi.org/10.1007/978-1-4419-7064-0_14
- Jakubowski, S. F., Milne, E. P., Brunner, H., & Miller, R. B. (2004). A review of empirically supported marital enrichment programs. *Family Relations, 53*(5), 528–536. <https://doi.org/10.1111/j.0197-6664.2004.00062.x>
- Johnson, C. A., Stanley, S. M., Glenn, N. D., Amato, P. R., Nock, S. L., Markman, H. J., & Robin Dion, M. (2001). *Marriage in Oklahoma: 2001 Baseline Statewide Survey on Marriage and Divorce*. Oklahoma State University, OSU Bureau for Social Research.
- Johnson, M. P., Caughlin, J. P., & Huston, T. L. (1999). The tripartite nature of marital commitment: Personal, moral, and structural reasons to stay married. *Journal of Marriage and the Family, 61*(1), 160–177. <https://doi.org/10.2307/353891>

- Karney, B. R., & Bradbury, T. N. (2005). Contextual influences on marriage. *Current Directions in Psychological Science, 14*(4), 171–174.
<https://doi.org/10.1111/j.0963-7214.2005.00358.x>
- Karney, B. R., & Crown, J. S. (2007). *Families under stress: An assessment of data, theory, and research on marriage and divorce in the military* (Vol. 599). RAND.
- Karney, B. R., & Crown, J. S. (2011). Does deployment keep military marriages together or break them apart? Evidence from Afghanistan and Iraq. In S. M. Wadsworth & D. Riggs (Eds.), *Risk and resilience in US military families* (pp. 23–45). Springer.
https://doi.org/10.1007/978-1-4419-7064-0_2
- Karney, B. R., Loughran, D. S., & Pollard, M. S. (2012). Comparing marital status and divorce status in civilian and military populations. *Journal of Family Issues, 33*(12), 1572–1594. <https://doi.org/10.1177/0192513x12439690>
- Karney, B. R., Story, L. B., & Bradbury, T. N. (2005). Marriages in context: Interactions between chronic and acute stress among newlyweds. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Emerging perspectives on couples' coping with stress* (pp. 13–32). American Psychological Association.
<https://doi.org/10.1037/11031-001>
- Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. Cambridge University Press.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. Wiley.

- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). *Marriage and health: his and hers. Psychological bulletin*, 127(4), 472–503. <https://doi.org/10.1037/0033-2909.127.4.472>
- Klein, D. M., & White, J. M. (1996). *Family theories: An introduction*. SAGE Publications.
- Knutson, L., & Olson, D. H. (2003). Effectiveness of PREPARE program with premarital couples in community settings. *Marriage & Family Journal: A Christian Journal*, 6(4), 259–546.
- Kurdek, L. A. (1994). Conflict resolution styles in gay, lesbian, heterosexual nonparents, and heterosexual parent couples. *Journal of Marriage and the Family*, 56(3), 705–722. <https://doi.org/10.2307/352880>
- Lacks, M., Lamson, A., Lewis, M., White, M., & Russoniello, C. (2015). Reporting for double duty: A dyadic perspective on the biopsychosocial health of dual military air force couples. *Contemporary Family Therapy: An International Journal*, 37(3), 302–315. <https://doi.org/10.1007/s10591-015-9341-y>
- Lester, M. E., & Doherty, W. J. (1983). Couples long-term evaluations of their marriage encounter experience. *Journal of Marital and Family Therapy*, 9(2), 183–188. <https://doi.org/10.1111/j.1752-0606.1983.tb01498.x>
- Lillard, L. A., & Waite, L. J. (1995). Til death do us part: Marital disruption and mortality. *American Journal of Sociology*, 100(5), 1131–1156. <https://doi.org/10.1086/230634>
- Little, D., & Hisnanick, J. (2007). The earnings of tied-migrant military husbands. *Armed Forces and Society*, 33(4), 547–570. <https://doi.org/10.1177/0095327X06298732>

- Lundquist, J. H., & Xu, Z. (2014). Reinstitutionalizing families: Life course policy and marriage in the military. *Journal of Marriage and Family*, 76(5), 1063–1081.
<https://doi.org/10.1111/jomf.12131>
- Lupton, J., & Smith, J. P. (2002). Marriage, assets and savings. In S. Grossbard-Schechtman (Ed.), *Marriage and the economy* (pp. 129–152). Cambridge University Press.
- Lyle, D. (2006). Using military deployments and job assignments to estimate the effect of parental absences and household relocations on children's academic achievement. *Journal of Labor Economics*, 24(2), 319–350. <https://doi.org/10.1086/499975>
- Makin-Byrd, K., Gifford, E., McCutcheon, S., & Glynn, S. (2011). Family and couples treatment for newly returning veterans. *Professional Psychology: Research and Practice*, 42(1), 47–55. <https://doi.org/10.1037/a0022292>
- Mansfield, A. J., Kaufman, J. S., Marshall, S. W., Gaynes, B. N., Morrissey, J. P., & Engel, C. C. (2010). Deployment and the use of mental health services among U.S. Army wives. *The New England Journal of Medicine*, 362(2), 101–109.
<https://doi.org/10.1056/NEJMoa0900177>
- Marine Corps Community Services Quantico. (2016). *Prevention and Relationship Enhancement Program (PREP)*. <http://www.quantico.usmc-mccs.org/marine-family/family-readiness/marine-corps-family-team-building-mcftb/prevention-and-relationship-enhancement-program-prep/>

- Markman, H. J., Renick, M. J., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management training: A 4- and 5-year follow-up. *Journal of Consulting and Clinical Psychology, 61*(1), 70–77. <https://doi.org/10.1037/0022-006X.61.1.70>
- Markman, H. J., & Rhoades, G. (2012). Relationship education research: Current status and future directions. *Journal of Marital and Family Therapy, 38*(1), 169–200. <https://doi.org/10.1111/j.1752-0606.2011.00247.x>
- Mattson, D. L., Christensen, O. J., & England, J. T. (1990). The effectiveness of a specific marital enrichment program: TIME. *Individual Psychology: Journal of Adlerian Theory, Research, and Practice, 46*(1), 88–92.
- McGill, J., Adler-Baeder, F., Bradford, A. B., Kerpelman, J., Ketring, S. A., & Sollie, D. (2016). The role of relational instability on individual and partner outcomes following couple relationship education participation. *Family Relations, 65*(3), 407–423. <https://doi.org/10.1111/fare.12201>
- McLaughlin, R., Nielsen, L., & Waller, M. (2008). An evaluation of the effect of military service on mortality: Quantifying the healthy soldier effect. *Annals of Epidemiology, 18*(12), 928–936. <https://doi.org/10.1016/j.annepidem.2008.09.002>
- Meadows, S., Tanielian, T., & Karney, B. (2016). *The Deployment Life Study: Longitudinal analysis of military families across the deployment cycle*. RAND Corporation.
- Military Compensation. (2018). *Regular military compensation (RMC) calculator*. <https://militarypay.defense.gov/Calculators/RMC-Calculator/>

- Military Health System. (2018). *Periodic health assessment*. <https://health.mil/military-health-topics/health-readiness/reserve-health-readiness-program/our-services/pha>
- Military OneSource. (2018). *Marriage enrichment programs*.
<https://www.militaryonesource.mil/family-relationships/relationships/keeping-your-relationship-strong/marriage-enrichment-programs>
- Negrusa, B., & Negrusa, S. (2014). Home front: Post-deployment mental health and divorces. *Demography*, *51*(3), 895–916. <https://doi.org/10.1007/s13524-014-0294-9>
- Newby, J. H., McCarroll, J. E., Ursano, R. J., Zizhong, F., Shigemura, J., & Tucker-Harris, Y. (2005). Positive and negative consequences of military deployment. *Military Medicine*, *170*(10), 815–819.
<https://doi.org/10.7205/MILMED.170.10.815>
- Olson, D. H. (2000). Circumplex model of marital and family systems. *Journal of Family Therapy*, *22*(2), 144–167. <https://doi.org/10.1111/1467-6427.00144>
- Olson, D. H., Larson, P. J., & Olson-Sigg, A. (2009). Couple checkup: Tuning up relationships. *Journal of Couple & Relationship Therapy*, *8*(2), 129–142.
<https://doi.org/10.1080/15332690902813810>
- Olson, D. H., Olson-Sigg, A., & Larson, P. J. (2008). *The couple checkup*. Thomas Nelson.
- Owen, J., Antle, B., & Barbee, A. (2014). Does adherence to relationship education curriculum relate to participants' outcomes? *Couple and Family Psychology: Research and Practice*, *3*(2), 99–109. <https://doi.org/10.1037/cfp0000018>

- Owen, J., Manthos, M., & Quirk, K. (2013). Dismantling study of Prevention and Relationship Education Program: The effects of a structured communication intervention. *Journal of Family Psychology, 27*(2), 336–341.
<https://doi.org/10.1037/a0031597>
- Owen, J., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2011). The Revised Commitment Inventory: Psychometrics and use with unmarried couples. *Journal of Family Issues, 32*(6), 820–841. <https://doi.org/10.1177/0192513X10385788>
- Pawlyk, O. (2014, May 14). *Divorce and the air force: Who stays married and who doesn't*. Military Times. <https://www.militarytimes.com/2014/05/14/divorce-and-the-air-force-who-stays-married-and-who-doesn-t/>
- Peluso, P., Eisenberg, S., & Schindler, R. (2011). *The healthy marriage and responsible fatherhood initiative: Relationship education impact report 2011-09*. The PAIRS Foundation for the Administration of Children and Families, U.S. Department of Health and Human Services.
- Pflieger, J. C., LeardMann, C. A., McMaster, H. S., Donoho, C. J., Riviere, L. A., & Millennium Cohort Family Study Team. (2018). The impact of military and nonmilitary experiences on marriage: Examining the military spouse's perspective. *Journal of Traumatic Stress, 31*(5), 719–729.
<https://doi.org/10.1002/jts.22321>
- Pierce, A. (2016). *Perceived impact of Prevention and Relationship Enhancement Program (PREP) on marital satisfaction* [Doctoral dissertation, Walden University]. Walden Dissertations and Doctoral Studies.
<https://scholarworks.waldenu.edu/dissertations/2422/>

- Preciado, M. A., Krull, J. L., Hicks, A., & Gipson, J. D. (2016). Using a dyadic logistic multilevel model to analyze couple data. *Contraception, 93*(2), 113–118.
<https://doi.org/10.1016/j.contraception.2015.09.001>
- Pub. L. No. 104-193, § 110 Stat. 2110 (1996).
- Reardon-Anderson, J., Stagner, M., Macomber, J., & Murray, J. (2005). *Systematic review of the impact of marriage and relationship programs*. Report prepared by the Urban Institute. U.S. Department of Health and Human Services, Administration for Children and Families.
- Rhoades, G. K. (2015). The effectiveness of the within our reach relationship education program for couples: Findings from a federal randomized trial. *Family Process, 54*(4), 672–685. <https://doi.org/10.1111/famp.12148>
- Rosen, L. N., & Durand, D. B. (1995). The family factor and retention among married soldiers deployed in Operation Desert Storm. *Military Psychology, 7*(4), 221–234.
https://doi.org/10.1207/s15327876mp0704_1
- Rosen, L. N., & Durand, D. B. (2000). Coping with the unique demands of military life. In J. A. Martin, L. N. Rosen, & L. R. Sparacino (Eds.), *The military family: A practice guide for human service providers* (pp. 55–72). Praeger.
- Rostker, B. D. (2006). *I want you: The evolution of the all-volunteer force*. RAND Corporation.
- Salivar, E., Rothman, K., Roddy, M. K., & Doss, B. D. (2020). Relative cost effectiveness of in-person and internet interventions for relationship distress. *Family Process, 59*(1), 66–80. <https://doi.org/10.1111/famp.12414>

Schilling, E. A., Baucom, D. H., Burnett, C. K., Allen, E. A., & Ragland, L. (2003).

Altering the course of marriage: The effect of PREP communication skills acquisition on couples' risk of becoming maritally distressed. *Journal of Family Psychology, 17*(1), 41–53. <https://doi.org/10.1037/0893-3200.17.1.41>

Schwartz, C. R., & Han, H. (2014). The reversal of the gender gap in education and trends in marital dissolution. *American Sociological Review, 79*(4), 605–629. <https://doi.org/10.1177/0003122414539682>

Schwartz, R. C. (1980). The relationship among communication style, self-esteem, and the couple communication program. *Dissertation Abstracts International, 41*(8-B), 3198.

Scott, S. B., Rhoades, G. K., Stanley, S. M., Allen, E. S., & Markman, H. J. (2013).

Reasons for divorce and recollections of premarital intervention: Implications for improving relationship education. *Couple & Family Psychology, 2*(2), 131–145. <https://doi.org/10.1037/a0032025>

Shaver, P. R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment & Human Development, 4*(2), 133–161.

<https://doi.org/10.1080/14616730210154171>

Sherwood, E. (2009). Clinical assessment of Canadian military marriages. *Clinical Social Work Journal, 37*(4), 332–339. <https://doi.org/10.1007/s10615-007-0108-2>

Shinseki, E. (2003). *The Army family: A white paper*. Center of Military History.

- Skopp, N. A., Reger, M. A., Reger, G. M., Mishkind, M. C., Raskind, M., & Gahm, G. A. (2011). The role of intimate relationships, appraisals of military service, and gender on the development of posttraumatic stress symptoms following Iraq deployment. *Journal of Traumatic Stress, 24*(3), 277–286.
<https://doi.org/10.1002/jts.20632>
- Smock, P. J., Manning, W. D., & Porter, M. (2005). “Everything's there except money”: How money shapes decisions to marry among cohabitators. *Journal of Marriage and Family Minneapolis, 67*(3), 680–696. <https://doi.org/10.1111/j.1741-3737.2005.00162.x>
- Stanley, S. M., Allen, E. S., Markman, H. J., Saiz, C. C., Bloomstrom, G., Thomas, R., Schumm, W. R., & Bailey, A. E. (2005). Dissemination and evaluation of marriage education in the Army. *Family Process, 44*(2), 187–201.
<https://doi.org/10.1111/j.1545-5300.2005.00053.x>
- Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. *Journal of Marriage and the Family, 54*(3), 595–608.
<https://doi.org/10.2307/353245>
- Stanley, S. M., Rhoades, G. K., Loew, B. A., Allen, E. S., Carter, S., Osborne, L. J., Prentice, D., & Markman, H. J. (2014). A randomized controlled trial of relationship education in the U.S. army: 2-year outcomes. *Family Relations, 63*(4), 482–495. <https://doi.org/10.1111/fare.12083>
- Stanley, S. M., Whitton, S. W., Low, S. M., Clements, M. L., & Markman, H. J. (2006). Sacrifice as a predictor of marital outcomes. *Family Process, 45*(3), 289–303.
<https://doi.org/10.1111/j.1545-5300.2006.00171.x>

Strong Bonds. (n.d.). *About us*. <https://strongbonds.jointservicesupport.org/About-Us>

Stronger Families (2021). *Who we are*. <https://strongerfamilies.com/who-we-are/>

Teachman, J. D., & Tedrow, L. (2008). Divorce, race, and military service: More than equal pay and equal opportunity. *Journal of Marriage and Family*, 70(4), 1030–1044. <https://doi.org/10.1111/j.1741-3737.2008.00544.x>

Thomas, A., & Sawhill, I. (2005). For love or money? The impact of family structure on family income. *Marriage and Child Well Being*, 15(2), 57–74. <https://doi.org/10.1353/foc.2005.0020>

Troxel, W. M., & Matthews, K. A. (2004). What are the costs of marital conflict and dissolution to children's physical health? *Clinical Child and Family Psychology Review*, 7(1), 29–57. <https://doi.org/10.1023/B:CCFP.0000020191.73542.b0>

U.S. Army Training and Doctrine Command. (2017). *The soldier's blue book*. Headquarters Department of the Army.

U.S. Department of Veteran Affairs. (2018). Office of Public and Intergovernmental Affairs. Retrieved December 10, 2018, from https://www.va.gov/opa/persona/active_duty.asp

Van Lange, P. A. M., & Balliet, D. (2015). Interdependence theory. In M. Mikulincer, P. R. Shaver, J. A. Simpson, & J. F. Dovidio (Eds.), *APA handbooks in psychology. APA handbook of personality and social psychology, Vol. 3. Interpersonal relations* (pp. 65–92). American Psychological Association. <https://doi.org/10.1037/14344-003>

- Wadsworth, S. M., & Southwell, K. (2011). Military families: Extreme work and extreme “work-family.” *Annals of the American Academy of Political and Social Science*, 638(1), 163–183. <https://doi.org/10.1177/0002716211416445>
- Walmart. (2018). *Location facts*. <https://corporate.walmart.com/our-story/locations/united-states/washington#/united-states/washington>
- Walzlawick, P., Weakland, J. H., & Fisch, R. (1974). *Change: Principles of problem formation and problem resolution*. Norton & Co.
- Weber, E. G., & Weber, D. K. (2005). Geographic relocation frequency, resilience, and military adolescent behavior. *Military Medicine*, 170(7), 638–642. <https://doi.org/10.7205/MILMED.170.7.638>
- Williamson, H. C., Altman, N., Hsueh, J. A., & Bradbury, T. N. (2016). Effects of relationship education on couple communication and satisfaction: A randomized controlled trial with low-income couples. *Journal of Consulting and Clinical Psychology*, 84(2), 156–166. <https://doi.org/10.1037/ccp0000056>
- Williamson, H. C., Rogge, R. D., Cobb, R. J., Johnson, M. D., Lawrence, E., & Bradbury, T. N. (2015). Risk moderates the outcome of relationship education: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 83(3), 617–629. <https://doi.org/10.1037/a0038621>

Appendix A**Demographic Questionnaire**

Sex: (Male, Female, prefer not to say)

Age: (18-25, 26-30, 31-35, 36-40, 41 or older)

Race & Ethnicity: Ethnically of Hispanic/Latino origin, White/European American, Black/African American, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, Aboriginal, Other: _____

Education Level: Some high school, no diploma; High school diploma or GED Equivalent; Associate Degree; Bachelor's Degree (BA, BS); Master's Degree (MA, MS); Doctorate Degree (PhD, EdD); Professional Degree (MD, DDS)

Rank if Active Duty: E1-E4, E5-E9, WO1-CW5, 01-05, 06-010, I am not an Active Duty member but my spouse is

Family Income Level: Less than \$25,000; \$25,000-\$34,999; \$35,000-\$49,999; \$50,000-\$74,999; \$75,000-\$99,999; \$100,000-\$149,999; \$150,000 or more

Assigned military base

Installation name: _____ City: _____ State: _____

Number of times married (INCLUDING current marriage): 1, 2, 3, 4+

Number of years currently married: _____

Number of children living in the home more than half time: 0, 1, 2, 3, 4, 5, 6+

Since I've been married, I have been unfaithful to my spouse: True/False

Appendix B

Couples Satisfaction Index (4-item version)

Please indicate the degree of happiness, all things considered, of your relationship.

Extremely Unhappy 0	Fairly Unhappy 1	A Little Unhappy 2	Happy 3	Very Happy 4	Extremely Happy 5	Perfect 6
	Not at all TRUE	A little TRUE	Somewhat TRUE	Mostly TRUE	Almost Completely TRUE	Completely TRUE
I have a warm and comfortable relationship with my partner	0	1	2	3	4	5
How rewarding is your relationship with your partner?	0	1	2	3	4	5
In general, how satisfied are you with your relationship?	0	1	2	3	4	5

PERMISSION FOR USE: We developed the CSI scales to be freely available for research and clinical use. No further permission is required beyond this form and the authors will not generate study-specific permission letters.

SCORING: To score the CSI-4, you simply sum the responses across all of the items. The point values of each response of each item are shown above. **NOTE** – When we present the scale to participants, we do not show them those point values. We just give them circles to fill in (on pen-and-paper versions) or radio buttons to click (in online surveys) in place of those point values.

INTERPRETATION: CSI-4 scores can range from 0 to 21. Higher scores indicate higher levels of relationship satisfaction. CSI-4 scores falling below 13.5 suggest notable relationship dissatisfaction.

CITATION: If you are using this scale, then you should cite the research article validating it as follows:

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572–583.

Appendix C

The Revised Commitment Inventory

Dedication subscale

1. My relationship with my partner is more important to me than almost anything in my life.
2. I want this relationship to stay strong no matter what rough times we encounter.
3. I like to think of my partner and me more in terms of "us" and "we" than "me" and "him/her."
4. I think a lot about what it would be like to be married to (or dating) someone other than my partner.
5. My relationship with my partner is clearly part of my future life plans.
6. My career (or job, studies, homemaking, childrearing, etc.) is more important to me than my relationship with my partner.
7. I do not want to have a strong identity as a couple with my partner.
8. I may not want to be with my partner a few years from now.

Satisfaction with Sacrifice subscale

1. It can be personally fulfilling to give up something for my partner.
2. I do not get much fulfillment out of sacrificing for my partner. (reverse-coded)
3. I get satisfaction out of doing things for my partner, even if it means I miss out on something I want for myself.
4. I am not the kind of person that finds satisfaction in putting aside my interests for the sake of my relationship with my partner. (reverse-coded)
5. It makes me feel good to sacrifice for my partner.
6. Giving something up for my partner is frequently not worth the trouble. (reverse-coded)

Appendix D

Facilitator Checklist of OXYGEN Components Covered

Facilitator: _____ Date: _____

<i>Unit</i>	<i>Activity</i>	<i>Activity completed (check)</i>	<i>People <u>not</u> participating (tally—no names)</i>
Unit 1: Understanding and Building on our Differences			
	<i>Group Activity:</i> What would you miss from a relationship? (sticky dot exercise)		
	<i>Couple Breakout:</i> Emotional Needs		
	<i>Couple Breakout:</i> Action Plan—Investor v. Consumer		
Unit 4: Great Communication: Love, Respect, Empathy			
	<i>Group Activity:</i> Focusing (All of Me—John Legend)		
	<i>Couple Breakout:</i> Creating Healthy Communication		
	<i>Couple Breakout:</i> Action Plan—Reflecting on your Past		
Unit 5: Putting Out Fires: Communication Through Conflict			
	<i>Couple Breakout:</i> Common Conflict Igniters		
	<i>Couple Breakout:</i> Action Plan—10 Steps to Resolving Conflict		
Unit 6: Seven Keys to Incredible Sex			
	<i>Couple Breakout:</i> Identifying Your Love Language		
	<i>Group Activity:</i> Exploring Your Love Language		

Appendix E

Program Satisfaction

Program Attendance

1. Did you attend an OXYGEN seminar? When?
2. What percentage of the seminar did you attend?
3. Did you attend the complete seminar? If not, how much were you able to attend?

Receptivity to the Program

4. How interested were you in attending Oxygen?
5. How interested was your partner in attending Oxygen?
6. How engaged were you during the Oxygen program?
7. How engaged was your partner during the Oxygen program?

Helpfulness of Program Elements

8. How helpful did you find learning about your and your partner's personalities?
9. How helpful did you find learning and practicing the communication skills?
10. How helpful did you find learning about love languages?
11. How helpful did you find creating action plans for working on your relationship?

Satisfaction with Facilitator(s)

12. How would you rate the quality and effectiveness of the facilitator?
13. I am confident in the facilitator's ability to help us.

Overall Program Satisfaction

14. As a result of attending the Oxygen event, I learned a lot.
15. Overall, I am satisfied with my experience at the Oxygen seminar.
16. Overall, I found Oxygen helpful for my relationship.
17. I would recommend Oxygen to a friend.
18. What were the most effective aspects of Oxygen for you and/or partner?
19. What were the least effective aspects of Oxygen for you and/or partner?
20. What suggestions do you have for improving the Oxygen seminar?

Confidence and Intention

21. As a result of attending Oxygen, I have confidence that my partner and I can talk about things constructively.
22. As a result of attending Oxygen, I will invest more time in our relationship.
23. As a result of attending Oxygen, I think my partner and I will work more as a team.

Appendix F**Screening Questionnaire**

1. Are you 18 years of age or older? (yes/no)
2. Are you married? (yes/no)
3. What is your sex? (Male, Female, prefer not to say)
4. What is your partner's sex? (Male, Female, prefer not to say)
5. Are you or your partner on active duty in the military? (yes/no)
6. Have you ever participated in the OXYGEN seminar put on by Stronger Families?
(yes/no)

Appendix G

Consent Form

You are invited to participate in a research study of married couples in the military conducted by Irina Owen and her faculty advisor, Leihua Edstrom, through Northwest University. The purpose of this study is to learn more about marriage relationships and the effectiveness of the marriage enrichment program OXYGEN.

Participation

If you agree to participate in the study, you will be asked to complete a set of online surveys at two points in time (beginning point, one week later). The surveys will cover demographic information about your family, your stress level, and your perceptions of your marriage relationship—such as your sense of satisfaction and intimacy. It will take about 5-10 minutes for the first survey, and about 10-15 minutes for the second survey.

Participating in the study will also involve the opportunity to attend the OXYGEN marriage enrichment seminar. OXYGEN was developed about 10 years ago and designed specifically for couples in the military. If you opt in to the study, you will be required to attend the OXYGEN program.

OXYGEN is a 4-hour seminar that offers an opportunity to spend time with your partner and other military couples, learn more about yourself and your partner, and engage in activities to enhance your relationship. You will also be asked to complete a 5-minute questionnaire about the OXYGEN program after your attendance as part of the set of study surveys.

Compensation

If you and your spouse both agree to participate, you will *each* receive digital gift cards following completion of each set of surveys. The amounts of the gift card will be \$10 and \$15, for the two sets, respectively.

Risks and Benefits

We expect that you will face minimal risks if you participate in the study. However, some individuals may feel discomfort or embarrassment answering personal questions about themselves or their marriage. If you opt in to the study, you may stop participation at any time and for any reason. You may also refuse to answer any questions without losing the incentives promised to you for study participation. In addition to the gift cards, another benefit of taking part in this study may be the opportunity to reflect on your marriage relationship and participate in marriage research.

Participation in this study is voluntary. There will not be any negative consequences for you if you refuse to participate. If you do participate, your information will be kept confidential. Any identifying information you provide us will be kept securely and separate from your survey responses. No identifying information will be shared with anyone outside of the research team.

Next Steps

If you would like to participate in the study, please provide your electronic signature below. In addition, please indicate contact information for you and your partner. (Note: Email and cell phone information will be kept confidential and protected. It will be used only for study purposes, such as sending you access to consent forms or surveys, or for brief reminders.) Both you and

your partner will need to consent to participate in order for us to include you in the study. Following you and your partner's consent, we will send you a weblink to the surveys to get started in the study.

Electronic signature:

My contact information (email and cell phone):

My partner's contact information (email and cell phone):

Please print a copy of this consent form for your records. By turning in this consent form, you are giving permission to use your responses in this research study.

If you experience concern or distress during or after study participation, the following resources are available:

National Crisis Call Center: 1-800-273-8255

Crisis Text Line: Text HOME to 741741

Lifeline Crisis Chat: <https://www.contact-usa.org/chat.html>

Psychology Today therapist directory: <https://www.psychologytoday.com/us/therapists>

Information learned through the study will be shared in professional meetings and research publications. However, only summaries of results will be reported that will never include any identifying information about participants. In addition, study data (without any names or other identifying information) will be shared with Stronger Families, the creators of the OXYGEN seminar, to help improve the program.

If you have any questions about this study, contact Irina Owen, xxxxx@northwestu.edu or Dr. Leihua Edstrom, leihua.edstrom@northwestu.edu or 425-889-5367. You may also contact the Chair of the Northwest University Institutional Review Board, Dr. Cherri Seese, at cherri.seese@northwestu.edu or 425-985-7070.

Thanks so much for your consideration!

Irina Owen, MA
Doctoral Student in Counseling Psychology
College of Social and Behavioral Sciences

Leihua Edstrom, PhD
Faculty Advisor
Director of the Doctoral Program in Counseling Psychology
College of Social and Behavioral Sciences

Appendix H

Rewards Survey

Thank you for your continued participation with the OXYGEN Study. Please confirm that the information below is correct, and enter in the email address that you would like to be used to receive the reward card. Reward cards will be received within 7 days of submission. If you experience any difficulties, please contact the research team:

OxygenStudy@northwestu.edu

First Name:

Last Name:

Today's date:

Email you wish the reward gift card to be sent:

Please confirm email is correct....

If this is correct, please click "Submit" to confirm your completion of the survey. Otherwise, click "Back" and update the email you would like to use.