DETERRENT EFFECTS OF RELIABLE STRUCTURED DECISION-MAKING PROTOCOLS ON SPOUSE ABUSE PERPETRATION AND RE-OFFENSE IN THE U.S. ARMY

by

TYLER DUMARS

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Abstract

PROTOCOLS ON SPOUSE ABUSE PERPETRATION AND RE-OFFENSE IN THE U.S. ARMY

Tyler DuMars, PhD

The University of Texas at Arlington, 2013

Supervising Professor: Alexa Smith-Osborne

Since the early 1980s, victims' rights advocates, law enforcement officials, health care practitioners, and policymakers have all worked diligently to reduce or arrest the high levels of intimate partner violence (IPV) in military communities. Despite increased awareness and funding, new treatment approaches, and numerous policy changes, IPV in the military continues to be a deeply entrenched and recalcitrant problem.

In January 2008, the Army began using a structured decision-making protocol (the Decision Tree Algorithm) that requires users to assess whether alleged incidents of intimate partner abuse coincide with evidence-based maltreatment definitions, and indicate that actual harm (or the potential for harm) was inflicted upon the victim. This study assessed the deterrent effects of this new decision-making system on the rates of spouse abuse perpetration and re-offense in the U.S. Army. Determinants of incident substantiation and re-offense such as sociodemographic characteristics, alcohol use, command participation, and installation deployment loads were also evaluated. The guiding principles for this research were derived from a theoretical framework that integrated Cognitive Behavioral, Social Learning, Cultural Dimensions, Feminist,

Five datasets were systematically selected for analysis from an Army Central Registry containing 78,874 unique spouse abuse incidents from 2003-2013. The spouse abuse incidents were nested among 82 Army installations in the U.S. and around the world. Chi-square and multilevel logistic regressions were used to test for associations between the time-period (before or after the implementation of the DTA) when an incident was determined and the outcome variables (spouse abuse perpetration and re-offense). Multilevel logistic regressions were used to determine which of the independent variables significantly increased or decreased the likelihood of spouse abuse perpetration and re-offense.

Consistent with extant literature, the rate of spouse abuse incident substantiation and re-offense dropped significantly after the Army began using the new structured decision-making protocols to make incident determinations. Sociodemographic characteristics such as male gender, non-military spouse, and alcohol use were the greatest risk factors for incident substantiation. Male gender, non-military spouse, and lack of command participation were risk factors for re-offense. Installation deployment loads were not significantly associated with incident substantiation or re-offense.

The findings suggest that there are deterrent effects associated with the use of structured decision-making protocols on spouse abuse perpetration and re-offense in the Army. Future research should explore the viability of using similar structured decision-making protocols in civilian settings, such as domestic violence problem-solving courts, where currently no such guidelines exist.

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Chapter 1

Introduction to the Study

Intimate partner violence (IPV) is a widespread social problem in military and civilian populations. Lifetime partner abuse estimates range from 30% in the U.S. military to 37% percent in the general population (Campbell et al., 2003; Snow-Jones et al., 1999). Several studies using military samples have found IPV perpetration rates that are approximately one to three times higher than rates found among representative studies of the general population (Heyman and Neidig, 1999; Marshall, Panuzio, and Taft, 2005; Straus and Gelles, 1990).

The differences in population demographics between the civilian population of the United States and the military make accurate comparisons difficult. Heyman and Neidig (1999) compared the rates of moderate male-perpetrated spouse abuse and severe male perpetrated spouse abuse among demographically matched samples of Army and civilian wives. The wives of Army soldiers reported significantly higher rates of moderate spouse abuse (13.1% vs. 10.0%) and severe spouse abuse (4.4% vs. 2.0%) than did their civilian counterparts.

A recent report by the U.S. Department of Justice (DOJ) assessed the prevalence of IPV against females in the civilian population belonging to specific age groups (e.g. 18-24; 25-34; 35-49). The majority of military spouses are female (93%) and between the ages of 18-40 (87%). Thus, it is reasonable to compare the rate of IPV for 18-49 year-old civilian females to the rate of IPV for females in the military community because the two samples are well matched demographically ("Demographics 2010 Profile of the Military," 2011). The results of this comparison parallel the findings of Heyman and Neidig from more than a decade ago. The rate of IPV against adult females in the military community for 2009-2010 was about three points higher (13 per 1000).

females) than the rate of IPV against females in the U.S. population (10.5 per 1000 females) for the same time period ("DoD Family Advocacy Program FY 2011 Data," 2012; Catalano, 2012).

The estimated costs associated with replacing personnel who are separated from the military, and expenses to cover treatment services for IPV exceed 273 million dollars per year (Campbell et al., 2003). The consequences of IPV to the military reach far beyond the economic costs and the unconscionable physical and psychological harm to victims. High rates of IPV damage the military's greatest asset, the trust and confidence of the American people. The United States military has finished first in Gallup's *Most Trusted American Institutions Poll* since 1989, with 1997 being the only exception (Gallup, 2011). When the military loses the confidence and trust of the American people and its allies, its mission effectiveness plummets.

There is no greater example of this phenomenon than the sexual abuse and torture of Iraqi prisoners by American Soldiers in 2004. General David Petraeus, former Central Command Commander summarizes the impact failing to adhere to core values in armed conflict: "The damage done by Abu Ghraib, for instance, is permanent; it undercuts the core objective, the trust and respect of the indigenous population. The human terrain is the decisive terrain" (Bowden, 2010). The second and third order effects of immoral behavior by service members negatively impact the inhabitants of the foreign countries where we are conducting operations, the American people, and our allies. This is why IPV in the military a high-profile social problem demanding further inquiry and analysis.

This dissertation has two specific goals:

- To assess whether the implementation of structured decision-making protocols by case review committees in January 2008 had a deterrent effect on spouse abuse perpetration and re-offense in the U.S. Army community.
- 2. To identify predictive factors that increase or decrease the odds of spouse abuse perpetration and re-offense in the U.S. Army community.

These goals were accomplished through the analysis of Army Central Registry spouse abuse data from 2003 through 2013. A robust theoretical framework, the conceptual model, and extant empirical evidence in the literature guide the research questions and hypotheses.

This dissertation is organized into five chapters. The layout of the dissertation is designed to first "tell the backstory" of the Army's Family Advocacy Program to place the study its proper historical context. This is achieved by providing an overview of the policy foundations and intervention components of the program (Section 2.2). This discussion is followed by an overview of the study's theoretical framework (Sections 2.4 and 2.5) and a review of the literature (Section 2.6). Chapter 2 concludes with the presentation of the conceptual model (Section 2.7) that guides this research and the specific research questions (Section 2.8). The study variables, methodology, data analysis strategies used to answer the research questions and test the hypotheses are described in Chapter 3. Chapter 4 is dedicated to providing a description of the data the results of the study. The final chapter includes a discussion of the findings, potential implications of the study and the conclusion.

1.1 Definition of Key Terms

Soldier

The term soldier in this study refers to an active duty male or female member of the U.S. Army. Members of the U.S. Army Reserve and Army National Guard are also

soldiers; however they do not participate in the Family Advocacy Program in large enough numbers to be included in this study. Reserve and National Guard soldiers only fall under the purview of the Family Advocacy Program during periods of active duty training, special duty training, or doing mobilizations greater than 30 days.

Intimate Partner and Spouse

The terms intimate partner and spouse are used interchangeably throughout this dissertation. The Department of Defense (DoD) defines an intimate partner (for spouse abuse intervention and record keeping purposes) as "a current or former spouse, a person with whom the abuser shares a child in common, or a current or former intimate partner with whom the abuser shares or has shared a common domicile" "DoD Instruction 6400.06," 2011, p. 35).

It should be noted that the definition of intimate partner has evolved over the last decade. Prior to August 2007, the DoD exclusively used the term "spouse" in lieu of "intimate partner." The term spouse was more narrowly defined as the opposite sex wife or husband of an active duty service member. In the time-period between August 2007 and September 2011, the term intimate partner violence was used, but the definition excluded same sex intimate partners. In this dissertation, the term intimate partner shall be construed to refer to the DoD's current definition of the term as previously noted, unless otherwise specified.

Intimate Partner Abuse, Spouse Abuse, and Intimate Partner Violence

The terms intimate partner abuse, spouse abuse, and intimate partner violence are used interchangeably throughout this dissertation. Although there are multiple definitions and conceptualizations of this phenomenon in the research literature, the following definition proposed by McHugh and Frieze (2006) was selected for its all-encompassing nature and simplicity. They defined intimate partner abuse as "physical,"

psychological, and/or sexual coercion perpetrated in the context of an intimate (romantic/sexual) relationship" (p. 122).

It should be noted that the term spouse abuse in this study may also refer to operationalized, legal, or criteria-driven definitions of the phenomenon outlined in Department of DoD Directives, Instructions, or service specific regulations. For example, the Army Family Advocacy Program (FAP) Regulation defines spouse abuse as:

An incident or incidents that indicate an emerging pattern or risk of further victimization of the spouse/partner. Excluded are behaviors indicative of marital discord with the absence of abusive acts (for example, arguments or disagreements regarding child rearing, financial management, and so on). Spouse/partner maltreatment incident indicators may include one or more of the following:

- A pattern of intentional acts of berating, disparaging or other verbally abusive behavior that adversely affects the psychological well-being of the spouse or partner.
- Coercive control and/or threatening behavior including terrorizing behavior (for example, threats to children, pets, or property).
- A pattern of restricting or withholding economic resources for the purpose of controlling the spouse/partner.
- A pattern of intentional intimidation for the purpose of controlling the spouse/partner.
- Isolation of a partner from family, friends, or social support resources.
- Chronic intentional interference with cultural adaptation.
- Physical assault(s) or threat(s) of physical violence with or without a weapon.
- An act which by itself or in conjunction with other conduct constitutes stalking.
- Sexual assault(s), threat(s) of sexual assault, or coercing a partner to engage in undesired sexual activity with alleged offender or other persons.
- Obstructing a partner from receiving medical services.

 Intentional neglect by refusing or obstructing a mentally/physically incapacitated spouse from receiving appropriate social, mental, or medical services. ("Army Regulation 608-18," 2011, p. 113)

1.2 Importance to Social Work

The movement to reduce intimate partner abuse has made tremendous strides over the last several decades. Laws now prohibit partner abuse, shelters exist to protect endangered women, batterer intervention programs provide treatment to offenders, and countless studies have led to the generation of a vast knowledge base.

There is ample evidence suggesting that violence against women is frequently intertwined with other issues encountered by social workers such as child abuse, mental health and substance abuse (McMahon, Postmus, Warrener, Plummer, and Schwartz, 2013). The Bureau of Labor Statistics reports that social workers provide the majority of mental health services to consumers in both specialty mental health care settings and primary health care settings, and employment of social workers is expected to grow by 25% from 2010 to 2020 ("Occupational Outlook Handbook," 2006, 2012). About one-half of batterer intervention programs report having at least one staff member with a master's degree in social work (Price and Rosenbaum, 2003).

Social workers are uniquely positioned across a wide spectrum of settings to assess and treat clients for present or past exposure to IPV. However, in a revealing editorial in the *Journal of Social Work Education*, Danis and Lockhart (2003) suggest that the majority of licensed social workers do not possess the baseline knowledge, skills, and abilities to effectively assess and treat clients experiencing problems related to domestic violence. The authors assert that very little of the "clinical wisdom" garnered from decades of hands-on experience by seasoned veterans of the battered women's movement has found its way into the social work knowledge base or the university programs that train new social workers. The absence of practice standards, published

competencies, inadequate or inaccurate direct practice textbooks, damages the reputation of social workers as subject matter experts in the field of IPV.

Although progress since Danis and Lockhart's editorial has been slow, increased collaboration between practitioners and researchers has led to several new initiatives for better educating and training social workers to effectively respond to the needs of domestic violence victims (e.g. Bent-Goodley, 2007; Lindhorst, Nurius, and Macy, 2005; McMahon, Postmus, Warrener, Plummer, and Schwartz, 2013; and Postmus, McMahon, Warrener, and Macri, 2011). Most people would be surprised to learn that there is not a consensus among social workers, law enforcement officials, victim advocates, researchers, psychotherapists, and policymakers as to how to define partner physical, emotional, and sexual abuse (Heyman and Slep, 2006). This knowledge gap is especially striking given that one of the first steps in the scientific method is to operationally define the variables of interest. Heyman and Slep are the only researchers thus far to create and field-test a manualized spouse abuse decision-making protocol that utilizes reliable, research based definitions.

The importance of this study to the social work profession is that it tests one of the most challenging components of social work practice, the decision-making process involved in determining whether an intimate partner has engaged in partner abuse. If social workers are tasked with assessing and treating offenders and victims of IPV, they must be given a tool that gives them the ability to correctly and reliably identify who are the victims and who are the offenders. Practice decisions based on the desire to be helpful, and personal attitudes and experiences, are susceptible to errors in logic, fallacies about personal effectiveness, and have the potential to harm clients (Colarossi, 2005).

Admittedly, using manualized decision-making protocols to make decisions about alleged incidents of spouse abuse is a technical and difficult task, and may be outside the "comfort zone" of many social workers. In order to remain relevant in a research-based society, social workers need to resist the temptation to rebuff research-based protocols and standardized definitions intended to guide our ideology and practice. While the maltreatment definitions and spouse abuse decision-making protocols developed by Heyman and Slep may not be perfect, it is unreasonable to expect IPV practice standards and published competencies to evolve if social workers do not put in the time and effort to do the research. The importance of this study to the field of social work is that it takes one small step in that direction.

Chapter 2

Policy Foundations, Intervention Components,
Theoretical Framework, and Literature Review

2.1 Chapter Overview

This chapter begins with a summary of the policy foundations and intervention components of the U.S. Army Family Advocacy Program, sections 2.2, and 2.3 respectively. The overarching theory for the dissertation, Brofenbrenner's Bioecological theory, is introduced in sections 2.4 and 2.5, along with several other theories that augment the explanatory power of the theoretical framework. Section 2.6, the literature review, summarizes the extant research on IPV within the U.S. military and the U.S. Army. With the groundwork laid, the final two sections, 2.7 and 2.8, present the purpose of the study, the conceptual model, and the research questions.

2.2 Policy Foundations of Spouse Abuse Intervention and Response Programs

Radical feminism is credited with the "rediscovery" of wife beating in the 1970s. After experiencing male prejudice in the civil rights and antiwar movements of the 1960s, disillusioned feminists held "consciousness raising" groups (Dobash & Dobash, 1979). The anti-rape movement was the first organized cause to emerge from consciousness raising groups. It provided the ideology, policy foundations, and public awareness that would pave the way for the first battered women's shelters in the United States (Pleck, 2004). Two of the pioneers were "Rainbow Retreat" opened in Phoenix, Arizona in 1973 and "Haven House" in Pasadena, California which began sheltering women in 1974 (Tierney, 1982).

Over the next two decades, the battered women movement sponsored legislation at the city, county, and state level that sought to "criminalize" partner abuse. The increase in pro-arrest police policies and more vigorous prosecution, led to a corresponding

increase in guilty pleas and convictions (Buzawa and Buzawa, 2003). Given that many of the partner abuse cases were misdemeanor offenses that did not justify incarceration, court-mandated treatment became the preferred option by courts in many jurisdictions (Babcock & Taillade, 2000). Psychoeducational treatment programs such the Domestic Abuse Intervention Project (DAIP) had to quickly develop and implement policies, procedures and treatment protocols to keep up with the demand for services.

2.2.1 State Level Policies

Prior to the second half of the 1970's, most states followed English common law practices which required law enforcement officials to witness an offense before making a warrantless arrest. This was a serious limitation because most acts of domestic violence occur in private settings behind closed doors (Fagan, 1996). Police officers were forced to classify partner battering as simple assault and battery, a misdemeanor (Buzawa and Buzawa, 2003).

Pennsylvania was the first state to enact measures that allowed police officers to make warrantless arrests for non-witnessed domestic violence-related misdemeanor assaults with the passage of the 1977 "Protection from Abuse Act." Since then, all the states have adopted similar reforms (Pleck, 2004).

Reforms in law and criminal justice also included the elimination of systemic problems that limited access to legal remedies for battered women; mandatory domestic violence arrest policies; compulsory treatment of men convicted of assaults against female intimate partners; and the creation of special courts for the adjudication of IPV cases (Hilton, 1993).

Active duty service members convicted of IPV that occurred on a military installation or in a military housing community are subject to judicial punishment under the Uniformed Code of Military Justice (UCMJ). Service members convicted of IPV that

occurred outside of a military installation fall under the jurisdiction of U.S. state and host nation laws and status of forces agreements. Service members may be court ordered by city, county or state authorities to attend treatment through a civilian program for batterers. A review of the laws in all 50 states pertaining to the duties and powers of civilian police, prosecutors, and court mandated batterer intervention programs is beyond the scope of this policy review. For a comprehensive state-by-state review of domestic violence-related enactments, please see Neal Miller's Institute for Law and Justice Report (2004).

2.2.2 Federal Policies

The aim of most of the early federal policies relating to the battered woman's movement attempted to secure funding for shelters and social services. Funding for the first battered women's programs came from a variety of sources such as the Young Women's Christian Association (YWCA); the United Way; federal agencies such as the Law Enforcement Assistance Administration (LEAA) and the Department of Labor; state and city governments; and private foundations (Tierney, 1982). Public Law 93-203, the Comprehensive Employment Training Act (CETA) of 1973 made funds available to state and local governments through block grants for planning and operating employment and training programs (Bahrand and Ricks, 1989). Public Law 90-351, the Omnibus Crime Control and Safe Streets Act of 1968 established the LEAA. The LEAA distributed several million dollars to the states to combat family violence from 1975 to 1980 (Tierney, 1982).

Congresswoman Barbara Mikulski, a former social worker from Baltimore,
Maryland, introduced a bill in 1978 that would have provided 125 million dollars in federal
funds for social programs providing services to battered wives. It was defeated in the
House of Representatives. Similar bills introduced in 1979 and 1980 made it through the

House of Representatives but encountered staunch Republican opposition in the Senate and were voted down (Pleck, 2004).

The first federal domestic violence legislation providing significant funding for shelters was not passed until 1984. An amendment to the Child Abuse Prevention and Treatment Act (CAPTA) of 1974 appropriated 24 million dollars over four years. The indirect effect of the infusion of state and federal dollars into domestic violence shelters was that by the late 1970s, many were transformed from "self-help" organizations into social agencies. Government funding streams were frequently accompanied by requirements to maintain case files, treatment plans, and concrete goals for victims and offenders (Pleck, 2004).

The passage of the Violent Crime Control and Law Enforcement Act of 1994, Public Law 103-322 (VAWA) was the culmination of more than two decades of advocacy on behalf of battered women. The intent of the law was to improve community-coordinated responses by the criminal justice system, the social services system, and private nonprofit organizations responding to domestic violence and sexual assault. The VAWA provided 409.82 million dollars in grants for battered women's shelters from 1995 through 2001. The grants for each state were allocated based on the relative population of the state (Siskin, 2001).

2.2.3 The Birth of the Family Advocacy Program

In May 1979, the Comptroller General sent a report to Congress describing the neglected status of child advocacy programs in the U.S. military. The report stated that in the absence of guidance from the DoD, each military service branch had established its own child advocacy program. The service branches had inconsistent definitions, policies, and procedures for investigating incidents and placing children outside of the home. The report also noted that military child advocacy programs received no direct funding and

suffered from a lack of adequate staff at most installations ("Military Child Advocacy Programs," 1979).

In response to the Comptroller General's report, the DoD issued Directive 6400.1 (1981), the founding document of the family advocacy program. The Directive instructed each branch of service to establish a broad based advocacy program providing for the prevention, identification, reporting, treatment, and follow up of child and spouse abuse. The Directive also published a set of standardized definitions for child and spouse abuse ("Manual for Child Maltreatment and Domestic Abuse," 2005).

In December 1981, Congress provided funding for the family advocacy program in the Department of Defense Authorization Act (1982), a precedent which continues to this day. The DoD issued updates to Directive 6400.1 in 1986, 1992, 2004, and is currently under revision. In 1992, the DoD published the first FAP manual, 6400.1-M, the "Family Advocacy Program and Self-Assessment Tool," a detailed guide that prescribed uniform standards for all installation FAPs. Each branch of the service uses this directive as a template for its FAP regulation, order, or instruction. The DoD updated 6400.1-M in 2005 and 2011.

Although the DoD expanded the scope of the FAP and standardized its implementation across the services in the 1990's, the programs components were not well coordinated and many victims of domestic violence were still "falling through the cracks." In 1998, several highly publicized domestic homicides occurred at Fort Campbell, Kentucky, one of the largest Army posts. Domestic violence advocates asserted that the DoD was making insufficient progress in confronting the problem of domestic violence involving military personnel (Harpaz, 1999). In January 1999, the television news program "60 Minutes" aired a highly critical report of the military's response to domestic violence (Radutzky, 1999). In response to the media scrutiny,

Congress held hearings in May 1999 to investigate the nature and extent of domestic violence within the military ("Department of Defense Appropriations," 1999).

The testimony compelled the 106th Congress to mandate the creation of the Defense Task Force on Domestic Violence (DTFDV) in section 591 of the National Defense Authorization Act for Fiscal Year 2000. The Act required the Secretary of Defense to establish a task force (comprised of twenty-four military and non-military members) to formulate a comprehensive plan to investigate the following concerns:

- Ongoing victim safety programs
- Offender accountability
- Climate for effective prevention of domestic violence
- Coordination and collaboration among all military organizations with responsibility or jurisdiction with respect to domestic violence
- Coordination between military and civilian communities with respect to domestic violence
- Research priorities
- Data collection
- Curricula and training for military commanding officers
- Prevention and response to domestic violence at overseas military installations ("National Defense Authorization Act for Fiscal Year 2000," 1999)

The DTFDV submitted three annual reports to Secretary of Defense Donald Rumsfeld for fiscal years 2001, 2002, 2003 and made nearly two hundred recommendations. The task force utilized an integrated multi-systems approach to evaluating the military's response to domestic violence scrutinizing not only the FAP, but also the roles and responsibilities of commanders, chaplains, military police, legal and medical professionals.

Many of the DTFDV recommendations have been implemented through pubic laws, DoD Directives, policy memoranda, and service specific regulations including the standardization of military protective orders, the expansion and funding of victim advocacy services; and confidential reporting options for victims (Armed Forces Domestic Security Act, 2002; "Implementation of the Armed Forces Security Act," 2003; "Family Advocacy Program," 2004; "Domestic Abuse Victim Advocate Program," 2005; "Manual for Child Maltreatment and Domestic Abuse Incident Reporting," 2005; "Restricted Reporting Policy," 2006).

In addition to policy recommendations, the DTFDV also posed several research questions for the DoD to explore. The research question that led to the most significant changes in FAP policy was the following: Would a more dynamic definition of spouse abuse lead to more reliable and accurate decisions by case review committees (CRC) than the traditional method of defining spouse abuse as a discrete, incident-based event with sub-categories? ("Defense Task Force on Domestic Violence," 2001)

The CRC is a group of subject matter experts from various disciplines (pediatrics, criminal investigators, religion, legal affairs, and family advocacy prevention), employed on a military installation. The purpose of the CRC is to make a clinical determination and render a disposition report stating whether a suspected spouse abuse incident occurred or did not occur. The CRC assesses the incidents based on the "totality of the circumstances" and the "preponderance of available evidence" and determines how much intervention is required using a much lower standard of proof than civilian and military criminal justice systems.

The DTFDV noted than an unintended consequence of the discussion format used by case review committees is that voters were sometimes swayed by non-evidentiary aspects of the incidents (e.g. offender willingness to participate in treatment,

victim's reputation) as opposed to the evidence itself as the main determinant of whether an act of spouse abuse had been committed.

The U.S. Air Force and the Department of Agriculture awarded contracts to psychologists Richard Heyman and Amy Slep from the State University of New York at Stony Brook to study the content validity of FAP maltreatment definitions; develop new definitions and criteria (if necessary) and explore ways of improving the decision-making processes used by case review committees (Heyman and Slep, 2006, p. 397).

Heyman and Slep created and field-tested a new set of definitions based on the best civilian and military operationalizations and conceptualizations of each type of maltreatment. They also developed a structured decision-making protocol that that they theorized would increase the accuracy and reliability of CRC dispositions. The old CRC decision-making protocol started with a short summary of the facts by the FAP social worker who interviewed the alleged victim and offender and any other witnesses with firsthand knowledge of the alleged incident of abuse. The CRC members would then engage in a short discussion and vote using the preponderance of the available evidence standard and the appropriate definition (e.g. physical spouse abuse, emotional spouse abuse) as a guide to whether the incident should be substantiated or unsubstantiated. A simple majority of votes was required for an incident to be substantiated.

Heyman and Slep's new CRC case presentation and decision-making protocol altered the presentation of information and voting procedures. Case presentation began with a summary of the facts presented by unit representatives (who often had first-hand knowledge of the events). Next, military police would provide a summary of their response and investigation (if the incident happened off base, military police would summarize information from civilian police reports). Lastly, the Family Advocacy Officer, (the chairperson of the CRC) summarized the information collected by the FAP clinical

social worker. Discussion was kept to a minimum to avoid lengthy discussions of irrelevant personal and family information not necessary to make incident determinations. Voting was guided by a computer-based decision tree program and was divided into two phases. First CRC members determined if an act of abuse occurred. Second, if it was determined that an act of abuse occurred, CRC members voted to decide the level of impact of the act on the victim. CRC members voted separately on each abuse and impact criterion. For an incident to be substantiated, a majority of the CRC members must have decided that 1) an act of abuse occurred and 2) the act had a significant impact on the victim. Some exclusions may be applied to certain incidents such as a "first time exclusion." Exclusions are discussed upon completion of the "action" and "impact" voting phases. Please see Appendix A for an example of the decision tree algorithm voting criteria and definition of abuse.

The results of Heyman and Slep's study demonstrated that non-clinical CRC members (using operationalized abuse criteria and structured decision-making) reliably came to the same decisions as master reviewers (92% agreement, Cohen's kappa (k) = .84.). Military leaders recognized that utilizing Heyman and Slep's operationalized abuse criteria and structured decision algorithm would help standardize the decisions made by the 300 case review committees scattered across the globe. By January 2008, all branches of the services made it a requirement that FAP case review committees use Heyman and Slep's operationalized abuse definitions and decision tree algorithm for incident dispositions.

From its humble beginning in the 1970's as an unfunded and inconsistently implemented child advocacy program, the FAP has become the largest "employer-based" domestic violence prevention and intervention program in the country. The FAP employs 800 civilians and 650 contractors that provide services to active duty service members

and their families on 300 installations around the world. While many shelters for battered women and batterer intervention programs struggle to secure funding from federal, state, private, and non-profit sources, FAP funding is included in the DoD budget, which is subject to approval by Congress every year. The fiscal year 2010 budget for the FAP was nearly one billion dollars ("Department of Defense Dependents Education," 2012).

2.3 Family Advocacy Program Intervention Components

The protocols or standing operating procedures that guide the military response and treatment to domestic violence on one installation may vary dramatically from other installations within the same service, depending on the resources that exist on the installation and the extent to which collaborative relationships exist with the surrounding civilian community (Beals, 2003). The service specific orders or regulations ("Air Force Instruction 40-301," 2009; "Army Regulation 608-18," 2011; "Marine Corps Order P1700.24B," 2001; and "OPNAV Instruction 1752.2B," 2008) which guide policy implementation are roughly analogous. Although there are some semantic differences, each service branch's version of the FAP utilizes the same multi-systems approach to domestic violence intervention and has the same basic components.

The DoD has never explicitly mandated the use of a particular intervention model or treatment modality for the FAP. However, many directives, orders, regulations, and treatment manuals are interspersed with excerpts that reveal a close alignment with Brygger and Edleson's (1987) feminist multi-system approach to IPV commonly known as the Domestic Abuse Project (DAP) of Minneapolis, Minnesota.

For the sake of illustration, the FAP components from the Army, the largest branch of the military, are outlined using Brygger and Edleson's multi-systems intervention framework. The primarily reference for this section is *Army Regulation 608-18* (known in Army circles as the "FAP manual").

Brygger and Edleson's multi-systems model is comprised of four key components: (1) immediate protection, support, and advocacy for battered women and their children; (2) treatment and accountability for violent men; (3) on-going support, education, and healing for battered women and their children; and (4) coordinated intervention and monitoring of social institutional responses to battering (p. 327).

2.3.1 Protection, Support, and Advocacy for Victims and their Children

DoD policy dictates that victims of spouse abuse, whether living on or off the military installation, shall have access to victim advocacy services, twenty-four hours a day either through personal or telephonic contact ("Domestic Abuse Victim Advocate Program," 2005). Larger installations may have separate victim advocates for spouse abuse, child abuse and sexual assault. The FAP victim advocate is typically employed by the installation's community services program (Figure 2.1). Victim advocates, in coordination with Staff Judge Advocates (SJA) help victims obtain military and civilian orders of protection, prepare applications and complete legal forms necessary to receive monetary compensation and benefits through programs such as transitional compensation and the State crime victim compensation funds. Victim advocates also work closely with FAP clinical social workers to assess initial and ongoing risk to victims, and referrals to on or off-installation shelters.

Transitional compensation for victim of abuse was established as an entitlement in the National Defense Authorization Act of 1994 to encourage victims to report abuse. To be eligible for compensation, the abuser must have been convicted of or administratively separated from the military due to a spouse abuse-related offense (Beals, 2003, p. 75).

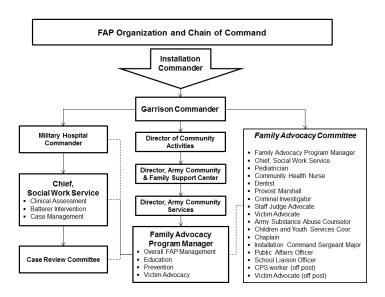


Figure 2-1 Installation Level Family Advocacy Program

Components Chart

2.3.2 Treatment and Accountability for Batterers

The FAP is a command driven program. This means that when a service member's case of IPV is substantiated by the CRC based on the preponderance of the available evidence, a unit commander has the discretionary authority to order a service member to attend treatment. A service member that fails to successfully complete batterer intervention treatment can be punished informally by his or her commander or under the Uniform Code of Military Justice. Service members convicted of IPV that occurs outside of a military installation may also be court ordered by city, county or state authorities to attend treatment through a civilian batterer intervention program (BIP).

The Social Work Service (SWS) department (Figure 2.2) is the treatment and batterer intervention component of the family advocacy program. The SWS department is an ancillary clinic that falls under the command of a military hospital or health center. Licensed clinical social workers provide the bulk of clinical services to spouse abuse

offenders and victims. They are charged with conducting the initial investigation and clinical assessment of allegations of spouse abuse, formulating treatment plans, managing cases, providing individual counseling, and leading group interventions.

Victims and offenders may also receive treatment from other clinics in the military hospital such as primary care, behavioral health, and psychiatry. Social Work Service is required to refer Soldiers to the Army Substance Abuse Program for an evaluation if alcohol or drug use is believed to be a contributing factor to the domestic abuse.

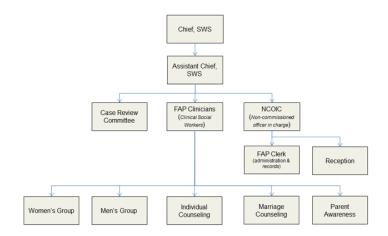


Figure 2-2 Social Work Service Department Components Chart

2.3.3 Support, Education, and Healing for Victims and their Children

Each military installation has a community services agency (e.g., Army Community Services, [ACS]). ACS offers employment counseling and a number of educational classes such as anger management, stress management, debt management, and counseling for effects domestic violence upon children.

The New Parent Support Program (NPSP) is a supportive program for parents with young children (0-3). The program assists families by providing comprehensive services before and after a child's birth. licensed social workers or nurses conduct initial and on-going risk assessments, intensive home visiting, child development education,

role modeling, and parenting classes. The Social Work Service is required to refer spouse abuse victims and offenders with young children, ages 0-3, to the NPSP for an evaluation.

2.3.4 Coordinated Intervention and Monitoring of Institutional Responses

Brygger and Edleson assert that one of the most important components of the multi systems approach is the Community Intervention Project (CIP). The Domestic Abuse Project's CIPs in Minneapolis, Minnesota work with local police departments, courts, prosecutors, and social service agencies. The goal of these CIPs is to promote standardized and immediate responses to violence by previously uncoordinated criminal justice and social service agencies (1987, p. 328).

The FAP does not have formal CIPs and the term is not used in DoD or service-specific policies. The FAP does have an installation level coordinator, the Family Advocacy Program Manager (FAPM), who falls under the chain of command of the installation commander (Figure 2.1). He or she serves as the chief consultant to commanders at all levels on family violence. The FAPM is also responsible for ensuring that domestic violence responses are coordinated and integrated across the many systems that provide services to victims of IPV on an installation. The FAPM serves as the liaison with civilian and military service providers and is responsible for developing and coordinating memorandums of agreement.

One of the most difficult challenges for the FAPM is to promote standardized and immediate responses to violence. FAP is a command driven program. The turnover rate for commanders on an installation (due to the normal rotation schedule) in a given year can be 60 percent or higher. The FAPM is responsible for ensuring that each unit commander and his or her senior enlisted adviser are trained on the FAP within forty-five days following assumption of command. Following an incident of IPV, commanders bear

the responsibility of ordering service members to attend treatment and for imposing punitive actions. There are innumerable factors that contribute to commanders' decision-making processes including unit posture, readiness, personal beliefs, and victim reputation (Sayegh, 2002).

The case review committee (CRC) also has a high turnover rate as key members move on assignments to other installations. The FAPM is a member of the CRC and he or she is responsible for ensuring that all CRC members (clinical social workers, physicians, military attorneys, criminal investigators, chaplains) are properly trained. CRC members are required to attend a federally funded 80-hour training course on family violence and CRC procedures. Advanced courses are also available for each specialty. The advanced courses are especially helpful to physicians and criminal investigators who are frequently called upon to testify in criminal justice proceedings.

The FAPM's greatest asset for promoting an integrated multi-systems response to domestic violence is the Family Advocacy Committee (FAC). The FAC is a multidisciplinary team of medical, substance abuse, criminal justice, social service, and other professionals who are "on orders" to be a member of the team. The FAC chairperson is typically the garrison commander, whom has command authority over all members of the team. The FAC typically meets once every quarter to accomplish the following objectives: 1) Update, refine, and coordinate family advocacy programs, policies, and procedures, 2) discuss community-wide prevention and training initiatives, 3) report on program evaluation efforts, and 4) prevent duplication of efforts.

2.4 Theoretical Framework

2.4.1 Bioecological Theory of Human Development

Brofenbrenner (1979) developed his Ecological Systems Theory to describe the complex interplay of multiple environmental systems upon childhood development. He

changed the name of the model to the Bioecological Model in 2001 to demonstrate that genetic and neurobiological factors also influence human development throughout the life course (Bronfenbrenner, 2005). The backbone of Brofenbrenner's model is the core belief that a child's world (and an adult's world) consists of five systems of interaction: (1) Microsystem, (2) Mesosystem, (3) Exosystem, (4) Macrosystem, and (5) Chronosystem. This multidimensional approach has been applied to spouse abuse and family violence by several theorists including Carlson (1984), Edelson and Tolman (1992), Heise (1998), Swick and Williams (2006), and MacDermid-Wadsworth (2010).

Microsystem

The microsystem represents the complex interaction between a person's genetics, neurobiological traits and his (or her) immediate environment (e.g. family, school, neighborhood). This core system serves as a child's venue for initially learning about the world and provides her with a reference point (Swick and Williams, 2006). Ideally, the microsystem provides a lifelong nurturing foundation for a child. However, it may also be contaminated by haunting memories of one's early experiences with violence (Rogoff, 2003)

Exosystem

Exosystems have an indirect impact upon an individual and are experienced vicariously. For example, a child will be indirectly impacted by a parent's workplace if it is a stressful or dangerous work environment. A child comprehends and feels the stress of their parent's workplace without ever physically being in these settings (Galinsky, 1999).

Mesosystem

Mesosytems are akin to bridges that help connect two or more systems in which a child, parent and family reside (Bronfenbrenner, 1979). For example, a teacher at school links a single mother to a local Boys and Girls club mentorship program. While the

children are participating in the Boys and Girls club programs, a fellow parent links the mother to English as a second language classes across the street. On military installations, the Post Chapel serves as an important mesosystem for many soldiers and family members. A soldier may socialize with her commander and her battalion commander after a Sunday service. The battalion commander introduces the soldier to the director of the Child and Youth Services program. The director informs the soldier of an upcoming field trip that her child might be interested in attending.

The power of mesosystems goes far beyond the practical matter of connecting two or more systems. Neuropsychiatrist Bruce Perry suggests that children who have few positive relational interactions (e.g., a child with an isolated or unhealthy family) during or after trauma have a much more difficult time decreasing the trauma-induced activation of the stress response systems. Perry argues that our capacity to benefit from positive relational interactions is a neurobiological factor that is derived from our unique developmental experiences (2009). There is a growing body of literature supporting the notion that child development is positively impacted by loving adults other than the parents who engage in caring ways with our children (Anda et al., 2006; Perry, 2001; Pipher, 1996; Raine, 2002).

Macrosystem

The Macrosystem is comprised of the cultural beliefs, societal mores, political leanings, and laws that influence how, when and where we carry out our relations with one another (Bronfenbrenner, 2005). For example, a policy on an overseas military installation may mandate that the spouses of lower ranking service members attend a newcomer's orientation course. The newcomer's orientation may positively affect a young mother by linking her to other young mothers, educational programs and other resources.

The young mother may feel less "stressed out," and more empowered in her life and become a more affective and effective parent.

Chronosystem

The chronosystem is a latent construct that a layperson might refer to as "life experience." Changes and transitions in the other four systems impact the composition of the chronosystem (Brofenbrenner, 1979). Family history and sociohistorical factors, two areas that have long been of interest to IPV researchers also influence an individual's chronosystem. Ford and Learner (1992) point out that the "history" of relationships in families may sometimes explain more about partner relations or parent-child relations than an in depth analysis of a family's current patterns of interaction.

The power of Brofenbrenner's model is that the elements of each system can be tailored to fit the specific circumstances that may apply to an individual at a specific moment in time (Swick and Williams, 2006). A military version of Brofenbrenner's (1979) conceptual model was developed for this study (Figure 2.3). This model provides a graphical depiction of the unique interplay between military-specific ecological systems and soldiers (Figure 2.3).

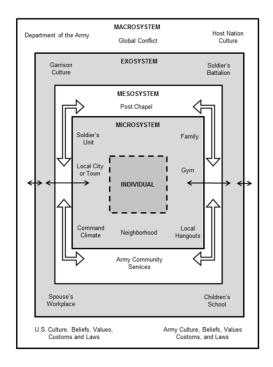


Figure 2-3 Application of Brofenbrenner's Bioecological Model to a Military Setting

2.4.2 Cognitive Behavioral Theory

The term "cognitive behavioral" (CB) does not describe a single theory or method of intervention. Rather, CB theory is an umbrella term for several major theories, therapies, and methods that utilize a rationalist or logical positivist approach (Hansen, 2008). CB theory is a product of the experimental psychology movement incorporating elements of social learning theory, cognitive theory, and behavioral theory (Weishaar, 1993).

From the 1950s through the 1980s, CB therapists noted that cognitive and behavioral changes have a reinforcing effect. This observation became the focus of countless empirical studies and is now one of the principal tenets of CB theory. To put it simply, "When cognitive change leads an individual to change his or her actions and

behavior, it results in a positive outcome that strengthens the change in the individual's thought patterns" (Hansen, 2008, p 45).

According to Hayes (2004), CB interventions can be divided into three subgroups or "waves" over the last fifty years. The first wave in the 1950s consisted of empirically supported behavior therapies. The second wave collectively known as the "cognitive revolution" is comprised of systematic therapies or instructional techniques focused mainly on modifying cognitions. Some prominent examples include: Rational Emotive Behavioral therapy for "emotional disturbance" (Ellis, 1989); Cognitive Therapy for depression and anxiety (Beck et al., 1979); Prolonged Exposure Therapy (Foa et al., 1991) and Cognitive Processing Therapy (Resick & Schnicke, 1992) for post-traumatic stress disorder.

The third wave of cognitive therapies may be described as a constructivist offshoot of the first two waves. Models include: Dialectical Behavioral Therapy for personality disorders (Linehan, 1993); Mindfulness Based Cognitive therapy for depression, (Segal, Williams & Teasdale, 2002) and Acceptance and Commitment therapy for "psychological suffering" (Hayes, Strosahl, & Wilson, 1999).

Spouse abuse intervention programs based on CB theory fit somewhere between the second and third waves of CB therapy approaches (Hayes, 2004). Although the focus of the intervention is primarily on the cognitive and behavioral patterns of the offender, CB oriented programs emphasize the fact that the offender is entirely responsible for his or her own violent behavior. The offender makes a decision to engage in abusive behaviors and controls the cognitive processes that lead to his or her conduct (Wexler, 2000).

Cognitive behavioral-oriented spouse abuse programs utilize a wide variety of techniques to diminish abusive behaviors (Koob, 2003). There is a common thread that

links these programs to one another, a reliance on anger-management intervention strategies borrowed from Novaco's (1975) adaptation of Meichenbaum's (1975) Stress Inoculation Training (SIT) for the treatment of anxiety disorders. The primary goal of anger and stress-management programs is to teach offenders cognitive reframing techniques, relaxation training, and engage in role-playing to enhance ability coping skills (Beck and Fernandez, 1998).

2.4.3 Social Learning Theory

According to Social learning theory (SLT), people learn how to behave by modeling the behavior of others (Akers, 1977; Bandura, 1977, 1979). When applied to the arena of spouse abuse, SLT asserts that aggression and violent behavior are learned by observing the behavior of others and its positive consequences. Parents, the main source of learning for children, are perceived as having high status, competence, and power (Bandura, 1977).

Children who witness parents engaging in violent behavior observe not only the abusive behavior, but the whole script for how that behavior is intended to be used. Childhood observations of the violent behavior, the emotional triggers for violence, the context, and the consequences are factors that have the potential to influence a person's behavior as an adult. The likelihood that observed behaviors and related cognitive patterns will be inculcated depends upon the observed effects of the behavior and the expected outcome of using the behavior.

In the larger society, there are many potential negative consequences to violent behavior such as mandatory court appearances, legal fees, and probation. In the context of the family environment, children who observe spouse abuse may learn that there are also positive consequences of violence. For example, a child who observes a father abusing his mother may decide that the outcome of the altercation is that his mother

shows greater deference and submits to his father's wishes. According to SLT, children who witnessed more functionally positive than negative consequences of their parent's abusive behavior are more likely to use violence as adults. In essence, they learned that abusive behavior is an effective means of achieving a desired outcome. Adults who engage in abusive behavior are simply putting into practice the lessons they learned as children (Bandura, 1973).

There is ample support in the literature for social learning theory's chief premise. This premise, sometimes referred to as the "cycle of violence," asserts that an adult's abusive behavior is the result of being the victim of (or witnessing) abusive behavior as a child (Burgess, Hartman, and McCormack, 1987; Fagan, Stewart, and Hansen, 1983; Gelles, 1972; McCord, 1988; Roy, 1982; Steinmetz, 1977; Straus, Gelles, and Steinmetz, 1980, Walker, 1984; Mihalic and Elliott, 1997; Sellers, Cochran, and Branch, 2005).

2.4.4 Hofstede's Cultural Dimensions Theory

Cognitive behavioral theory and SLT focus primarily on the microsystem and its impact on human behavior. In contrast, Geert Hofstede's Cultural Dimensions Theory focuses mainly on the effects of the macrosystem and exosystem on human behavior. In 1980, Hofstede conducted a comprehensive analysis of worker values in international organizations and developed a five-factor model of national cultural value dimensions (Table 2.1).

Table 2.1 Hofstede's Five-Factor Model of Culture Value Dimensions

Power	The degree of inequality among people that the populace of a
Distance	country considers normal.
Uncertainty	The degree to which people in a country prefer structured over
Avoidance	unstructured situations. Structured situations are those in which
	there are clear rules as to how one should behave.
Masculinity /	The degree to which values like assertiveness, performance,
Femininity	success, and competition (which in nearly all societies are more
	associated with the role of men) prevail over values like the
	quality of life, maintaining warm, personal relationships, service,
	care for the weak, and solidarity (which in nearly all societies are
	more associated with the role of women).
Individualism /	Describes whether one's identity is defined by personal choices
Collectivism	and achievements or by the character of the collective group to
	which one is more or less permanently attached.
Long-term / Short-	Based on the values stressed in the teachings of Confucius.
term Orientation	Long-term orientation focuses on the degree to which a culture
	embraces, or does not embrace, future-oriented values, such as
	perseverance and thrift.

Note. Hofestede's Cultural Value Dimensions. Reprinted from "Multinational Military Operations and Intercultural Factors," by A. R. Febbraro, B. McKee, and S. L. Riedel, 2008, Multinational Military Operations and Intercultural Factors, p. 1-7. Copyright 2008 by RTO/NATO. Reprinted under NATO's fair use policy.

Hofstede defines culture as the "collective programming of the mind that distinguishes the members of one group or category of people from another" (Hofestede, 2001, p. 9). Collective programming of the mind begins a few months after birth and is mostly complete by the time a person enters adulthood (Soeters, 1997). He posits that the human brain has three types or levels of mental programming (software). The most basic level of mental programming, the universal level, is akin to the biological operating system of the human body and it includes a range of expressive behaviors such as laughing and crying. It also includes associative behaviors which are learned through the association of events and aggressive behaviors (Hofestede, 2001).

This level of mental programming is the portion of the human mind that is analogous to the hard drive on a computer. It is gradually filled with mental programming that is learned over the course of the lifespan. Hofestede hypothesizes that that the

collective level of programming exists because people with different genetic makeups may share the same beliefs and values. The similarities are the result of living in the same culture and undergoing the same learning processes (Hofestede, 2001). Lastly, the individual level of human programming consists of the personality characteristics that make each human unique. This type of programming explains why there is such a wide spectrum of diverse behaviors within the same group or nation of people (Hofestede, 2001).

Soeters (1997) compared the values of officer trainees from U.S. military academies with the values of American workers from Hofstede's (1980) study on civilian organizations. His findings suggest that the values of U.S. military personnel differ significantly from the values of their counterparts in the civilian workforce. American military members displayed higher levels of power distance and uncertainty avoidance, and lower levels of individualism than civilian workers in the study. These results were largely confirmed in a second study by Soeters and Recht (2001) where U.S. military exhibited to be high levels of power distance and masculinity.

Soeters (1997) and Soeters and Rechts' (2001) findings are consistent with the findings of other researchers who have analyzed the cultural differences between military service members and civilian workers (e.g. Elron, Shamir and Ben-Ari, 1999; and Moskos, 2001). Soeters (1997) suggests that high levels of power distance and uncertainty avoidance are reflective of the classic "machine" bureaucracy, or hierarchical, formal rules-based organizations. Lower levels of individualism most likely reflect the military's focus on collectivism, interdependency, and teamwork.

In their NATO report on multinational military operations and intercultural factors Febbraro, McKee, and Riedel (2008) noted that "military organizations are unlike any other public or private institution. While sharing the same fundamental cultural influences

as other organizations within a given country, they view themselves, and more importantly, are viewed by many others, as very different" (p 1-8). Snider (1999) explains that military culture is atypical because it is derived from the unique missions and tasks assigned to it by society. For example, no other organization, private or public is assigned the task of "warfighting."

Hofestede's cultural dimensions theory is a key component of the theoretical framework of this study as it explains how soldiers are affected by organizational culture at the macrosystem and exosystem levels. It is common for military leaders and researchers to assume that the organizational culture of the Army deeply influences soldiers and their family members. If one wishes to understand how Army organizational culture impacts the complex phenomenon of IPV perpetration, it is necessary to include a theory in the theoretical framework that operationally defines organizational culture and provides an empirical basis for its existence.

Hofstede's five-factor culture value dimensions model has its critics. It is still the most robust and prominent model on culture in the literature (Febbraro, McKee, and Riedel, 2008). The belief that societal and organizational cultures are major contributors to IPV is a central tenet of many theories of intimate partner abuse. Ironically, there is a paucity of research on this topic in the literature (Rosen, Kaminski, Parmley, Knudson, and Fancher, 2003).

2.4.5 Feminist Theory

Feminist theories of IPV perpetration refer to a particular model or approach to intervention as much as they to do an agreed-upon theoretical framework or set of premises. The most influential feminist approach to IPV intervention is the Duluth model which was founded in the early 1980s. The cornerstone of the Duluth model is the premise that IPV in a society is primarily the result of male oppression of women within a

patriarchal system. In this system, men are the primary perpetrators of violence and women the primary victims (Dobash & Dobash, 1979; McPhail, Busch, Kulkarni and Rice, 2007; Walker, 1979).

For many generations, men in patriarchal societies have been using violence to create power differential and as a means to keep women subordinate. Male power and control over women is passed on from one generation to the next. Males are socialized to use tactics such as isolation and intimidation combined with physical, sexual, and emotional abuse to control women (Gondolf, 2007). Feminists assert that because male entitlement and the violence used to sustain it are learned behaviors, they can also be unlearned (Miedzian, 1991).

One of the primary goals of the Duluth model is to confront male entitlement, privilege, and the outdated notion that partner abuse is a private family matter. This is accomplished using treatment programs such as the Domestic Abuse Intervention Project (DAIP), the Domestic Abuse Project (DAP), and the Family Advocacy Program which provide services for batterers and victims. A primary tenet of the Duluth model is that IPV intervention must simultaneously promote social and cultural changes along with local, state, and federal policy changes to be successful (McPhail, Busch, Kulkarni and Rice, 2007).

The Department of Defense has never explicitly mandated the use of a specific intervention model or treatment modality for the FAP. Many directives, orders, regulations, and treatment manuals, however, are interspersed with excerpts that reveal a close alignment with Brygger and Edleson's (1987) feminist multi-system approach to IPV, commonly known as the Domestic Abuse Project (DAP). The theoretical framework of this model rests on the following philosophical assumptions:

Violence is functional behavior. Violent men gain immediate short-term results from their use of aggression and usually experience few sanctions as a consequence of their behavior.

Violence against women is a cultural norm. Our society has historically tolerated violence against women by partially or fully blaming them for men's use of violence.

Viewing violence as a functional and learned behavior rooted in social and cultural norms logically leads to a multilevel intervention that seeks to effect both individual and social change. (Brygger & Edleson, 1987, p. 325-326)

Violence is Functional Behavior

The Army FAP manual states that interventions for abusers "shall implement treatment models that view abuse as a learned behavior and stress the abuser's ability to learn self-control (for example, abusers or violence management groups)" (Army Regulation 608-18," 2011, p. 46). The assumption that abusers use violence as a functional "means to an end" was first posited by psychologist Albert Bandura in the early 1970's. One of the key tenets of social learning theory is that we model behavior we have been exposed to as children. Children casually observe and sometime directly experience violent behavior by family role models. Some children learn that violent behavior is an appropriate coping response to stress or conflict resolution.

Violence is a Cultural Norm

Cultural norms are the agreed-upon expectations and rules by which a culture guides the behavior of its members in any given situation. It is a well-documented fact that violence against women has existed and been enforced as a norm for centuries (Dobash & Dobash, 1978). Brygger and Edleson (1987) assert that the U.S. criminal justice system (through its actions and inactions) has served as a mechanism for condoning societal norms of male violence against intimate partners. One of the underlying principles of the integrated multi-systems approach is that male violence must

be clearly defined as criminal behavior; not the product of provocation by an intimate partner or family system. There is a similar statement in the treatment section of the Army FAP manual declaring that abusers must recognize that their behavior was wrongful; accept responsibility for that behavior, and then express a genuine desire for treatment ("Army Regulation 608-18," 2011, p. 42).

Integrated Approach to Intervention

The most important theoretical assumption underlying the integrated multisystems approach to IPV treatment is that that effective interventions must strive to affect both individual and social change. Batterer programs need to do more than provide direct clinical services to victims and abusers. They must seek to change the community and social institution responses to violent men (Brygger and Edleson, 1987).

There are numerous statements in the Army FAP manual suggesting that the integrated multi-systems approach provided the theoretical foundation and framework for the program. For example, the manual states "the FAP will promote public awareness within the military community and coordinate professional intervention at all levels within the civilian and military communities, including law enforcement, social services, health services, and legal services" ("Army Regulation 608-18," 2011, p. 1).

Feminist theory is a critical component of this study's theoretical framework because IPV is a social problem that has disproportionately impacted women in the past, and continues to so today (Rennison, 2001). The Bureau of Justice Statistics reports that 4 in 5 victims of IPV in the United States from 1994 to 2010 were female (Catalano 2012). In fiscal year 2011, 67 percent of the spouse abuse victims participating in the military's FAP were female ("DoD Family Advocacy Program FY 2011 Data," 2012). McCloskey (2007) warns that there is a downside to studying the issue of women's IPV in

an ahistorical way. Researchers who insist on taking the phenomenon of IPV out of its immediate cultural embeddedness run the risk of often ignoring the lessons of the past.

2.4.6 Deterrence Theory

Deterrence theory suggests that human behavior is rational and is influenced by incentives, especially the negative incentives that characterize formal sanctions.

Increasing the severity of sanctions and the certainty of their imposition is believed to discourage criminal behavior by augmenting its perceived or threatened costs (Pate and Hamilton, 1992).

General deterrence refers to the preventive impact on potential offenders of being exposed to the sanction experiences of convicted or sanctioned offenders. Specific deterrence refers to the role that formal sanctions play in deterring an offender from recommitting the same crime in the future (Piquero and Pogarsky, 2002; Stafford and Warr, 1993; Williams and Hawkins, 1986).

Deterrence theory, and the narrower concept of specific deterrence, are included in the theoretical foundation of this dissertation because they support the most important tenet underlying the Army Family Advocacy Program. As previously mentioned in section 2.3.2 of this chapter, the FAP is a command-driven program. In other words, it is an employer-driven program, not a criminal justice system-driven program. When the CRC substantiates a spouse abuse incident and creates a list of treatment recommendations, the intent is not to punish the spouse abuse offender, but to impose informal sanctions that will hopefully deter the individual from re-offending in the future. The commander may decide to impose formal sanctions that range from temporary loss of privileges to punishment under the Uniform Code of Military Justice.

Lee, Uken, and Sebold (2004) emphasize that separating formal sanctions and treatment functions in spouse abuse abatement programs is critical. Spouse abuse

treatment should never serve as a formal sanction because therapists are not legitimized by society to punish and control people.

Using case review committees to make spouse abuse incident determinations and treatment recommendations is advantageous because a high-level authority, the Department of the Army, legitimizes it. The focus of the CRC is to hold offenders accountable for their behavior. This effectively removes any responsibility from the treatment provider to impose informal sanctions. A therapist assigned to work with an offender who assumes no responsibility for his actions can remind him that it is his responsibility to convince the CRC that he is no longer engaging in abusive behavior. This allows the therapist to remain focused on his or her role as a professional trained to assist the offender with his self-initiated process of change (Lee et al., 2004).

Zimring and Hawkins (1971) suggest that the deterrent effect of formal sanctions may be increased if they are reinforced by informal sanctions. Thus, formal sanctions which generate embarrassing societal reactions may motivate offenders to avoid reoffense more than the unpleasantness of the actual punishment (Zimring and Hawkins 1973). Williams and Hawkins (1986) provided further clarification about how the deterrence process impacts offender behavior. They assert that the effect of formal sanctions (e.g. fines, incarceration) depends on the extent to which these sanctions trigger informal sanctions (e.g. stigma, loss of relationships, job loss).

Williams and Hawkins (1989) studied the concept of deterrence as it applies to spouse abuse by testing the effects of perceived formal and informal sanctions on arrests for wife assault. They conducted a national survey of married or men cohabitating with women to assess their perceptions of the indirect costs of committing domestic assault. The attachment costs (e.g. relationship strain or loss), stigmatic costs (humiliation) and commitments costs (workplace stress or loss) were assessed. Williams and Hawkins

found that the indirect costs of committing a domestic assault produced a "general sense of fear about arrest" in the study participants (p. 178). These findings were based on men's perceptions of hypothetical arrest for spouse abuse. The extent to which these results are generalizable to a population of offenders actually arrested for spouse abuse is unknown.

Williams (2005) posits that in addition to deterrence, there may be certain mediating influences such as procedural justice that may impact whether an offender continues to engage in abusive behavior. Paternoster, Brame, Bachman, and Sherma (1997) suggest that when sanctioning bodies strictly adhere to fair procedures, they strengthen offenders' connections to the social order. Treating offenders with dignity and respect provides confirmation that they are an esteemed member of the group. With some offenders, the procedural fairness of sanction delivery may have more of an impact than formal sanctions in determining whether an offender is compliant. Based on these assumptions, Paternoster et al. developed a conceptual model of procedural justice with six domains: representation, consistency, impartiality, accuracy, correct ability, and ethicality (167).

Williams (2005) conducted a secondary analysis of the data from Sherman and Berk's (1984) Minneapolis Domestic Violence Experiment (MVDE) to assess the effects of perceived procedural justice on spouse abuse re-offense. William's found that two of these measures of perceived procedural justice were consistently associated with a reduction in spouse abuse re-offense: 1) the sanctioning conditions (short-term versus long-term incarceration) and 2) the net of other determinants of such violence. The significance of these findings according to Williams is that "perceived procedural justice may be a function of either vicarious experiences or personal experiences of sanctioning

procedure, and thus, it is relevant for research on both the general and the specific preventive effects of sanctions" (p. 669).

The theory that perceived fairness of sanction delivery (procedural justice) has a mediating or indirect effect on treatment outcomes was the primary reason the U.S. Air Force asked Heyman and Slep (2006) to standardize the definition and decision-making processes used by Family Advocacy case review committees. Snarr, Heyman, Slep, and Malik (2011) tested the assumption that increasing the clarity and perceived fairness of the FAP case review committee decision-making process would prevent the reoccurrence of child and spouse abuse. They found that the re-offense rate among child and spouse abuse offenders dropped from 14% under the old system to 7% under the new system. Among the sample of Air Force offenders in Snarr et al.'s study, the implementation of the new decision-making process with consistently and fairly applied criteria for partner and child maltreatment suggest that it had a preventive impact on child and spouse abuse maltreatment.

2.4.7 Biological Theories of Spouse Abuse Perpetration

Biological theories of spouse abuse perpetration are especially germane to the U.S. active duty military population. Tanielian and Jaycox (2008) estimate that the number of traumatic brain injuries sustained by soldiers participating in the wars in Iraq and Afghanistan may be as high as 320,000. Hoge, McGurk, Thomas, Cox, and Engel, et al. (2008) surveyed 2,525 soldiers after a 12-month deployment to Iraq to assess the potential long-term effects of mild traumatic brain injury (TBI). Their findings suggest that the 15 percent of soldiers who reportedly sustained a mild TBI with loss consciousness "were significantly more likely to report poor general health, missed workdays, medical visits, and a high number of somatic and post-concussive symptoms than were soldiers with other injuries" (p. 459).

Terrio, Brenner, Ivins, Cho, and Helmick, et al. (2009) screened 3,973 soldiers assigned to a brigade combat team following a 12-month deployment to Iraq. About one quarter, 22.8 percent of the soldiers in their sample, screened positive screen for a clinician-confirmed TBI. Soldiers who experienced a TBI that resulted in an alteration in consciousness (36.9%, n=335) were significantly more likely to report somatic and/or neuropsychiatric symptoms such as headache, balance disorders, irritability, and memory problems immediately after the injury and at follow-up exams, than soldiers whose TBI did not result in an alteration in consciousness.

There is an emerging body of research in the literature exploring the relationship between biological factors and violent behavior (e.g. Miczek et al., 2007; Patrick, 2008; Raine, 2002; and Siever, 2008). There are fewer studies that focus specifically on the biological correlates of spouse abuse perpetration. Pinto et al. (2010) conducted the only literature review to date on this subject. They located twenty-two studies and divided them into four areas of inquiry: 1) head injury and neuropsychology; 2) psychophysiology; 3) neurochemistry, metabolism, and endocrinology; and 4) genetics (p. 388). The remainder of this section summarizes the extant research and theory development in each of these four categories.

Studies on the association of head injuries and spouse abuse perpetration have led several researchers to the same conclusion. Male spouse abuse perpetrators have a significantly higher rate of head injuries (that pre-date the onset of abusive behaviors) than non-abusers (Cohen, Rosenbaum, Kane, Warnken, and Benjamin, 1999; Marsh and Martinovich, 2006; Rosenbaum and Hoge, 1989; Rosenbaum et al., 1994). In the reports reviewed by Pinto et al., 40% to 61% of the spouse abuse offenders had previously suffered a head injury.

Given the elevated rates of head injuries among spouse abuse offenders, a number of researchers have completed neuropsychological studies to better understand the executive dysfunctions and general intellectual functioning of the offenders. The results of these studies indicate that in general, offenders perform significantly worse on measures of verbal intellectual ability, executive functioning, impulsivity, and attention (Cohen, et al., 1999; Cohen et al., 2003; Donovan and Ferraro, 1999; Schafer and Fals-Stewart, 1997; Stanford, Conklin, Helfritz, and Kockler, 2007; Teichner, Golden, Van Hasselt and Peterson, 2001; Warnken, Rosenbaum, Fletcher, Hoge and Adelman, 1994).

Pinto et al. (2010) hypothesize that head injuries increase the likelihood of IPV perpetration via several different pathways. Head injuries may contribute to serotonergic deficits, which in turn lead to the manifestation of neuropsychological deficits. Head injuries may also have an indirect impact on IPV by decreasing the quality of marital relationships. A theoretical model using these hypotheses was created and is depicted in Figure 2.4.

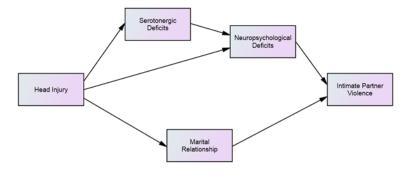


Figure 2-4 Theoretical Model Linking Head Injury to Intimate Partner Violence

Psychophysiology or physiological reactivity refers to biological reactions in the body produced by a stimulus. Commonly assessed examples in research studies include heart rate, blood pressure, and hormone levels. Interest in the physiological reactivity of

spouse abuse offenders stems from research showing that hostile and psychopathic individuals are more physiologically reactive than non-hostile individuals and non-psychopathic individuals (Lorber, 2004; Patrick, 2008).

There have been multiple attempts to find a specific psychophysiological profile of spouse abuse offenders (e.g. Jacobson et al., 1994; Gottman, Jacobson, Rushe and Shortt, 1995; Meehan, Holtzworth-Munroe and Herron, 2001; Umhau et al., 2002; Babcock, Green, Webb and Graham, 2004). Thus far, these studies have not identified a consistent pattern of physiological differences or physiological reactivity to laboratory tasks that distinguish spouse abuse offenders from non-violent individuals (Pinto et al., 2010).

Babcock, Green, Webb, and Yerington (2005) assessed the physiological reactivity of 35 severely violent batterers with 37 low-level violent batterers and 21 nonviolent men on 2 laboratory tasks. They found that autonomic hyporeactivity was a risk marker for antisocial features among severely violent men, and autonomic hyperreactivity was a risk marker among men with low levels of violence. The implications of these findings according to the authors are "that general antisocial tendencies and intimate partner abuse are empirically distinct constructs and that low resting heart rate and psychophysiological reactivity are related more consistently to the general antisocial spectrum of behavior than to intimate partner abuse" (p. 451).

Several researchers have investigated a wide variety of neurochemical, metabolic and endocrine brain dysfunctions that partner violent men appear to share. For example, Rosenbaum et al. (1997) conducted a study to assess whether low serotonin activity level might play a role in IPV. They found that abusers with a history of head injury had decreased serotonin levels compared to individuals in the control group.

Soler, Vinayak and Quadagno (2000) hypothesized that males with high levels of testosterone would be associated with higher levels of verbal and physical aggression toward female intimate partners. In their study, testosterone levels were significantly associated with levels of both verbal aggression and physical violence. A study by Cohan, Booth and Granger (2003) produced similar results. In the Cohan et al. study however, male aggression toward his intimate partner was associated not only with his own levels of testosterone, but also with the testosterone levels of his female partner.

Lindman et al. (1992) examined the ethanol levels, serum testosterone concentrations, cortisol levels, and glucose levels of spouse abuse offenders and compared them to a control group. They found that the offenders' sober state cortisol and glucose levels were significantly higher than the comparison group of non-alcoholic males. The researchers hypothesized that the higher stress levels of the IPV offenders might be the cause of these differences. Many years later, George et al. (2004) analyzed glucose uptake activity in cortical and subcortical brain regions hypothesized to modulate fear-induced aggressive behaviors in some abusers. Findings from this study suggest that abusers had significantly lower glucose uptake in the right hypothalamus compared to non-abusers and controls, suggesting a possible abnormality in the hypothalamic activity of the abusers.

George, Phillips, Doty, Umhau and Rawlings (2006) developed a theoretical model linking biology, behavior and psychiatric diagnoses in spouse abuse offenders. They hypothesize that abnormalities in the neuropathways of abusers have an impact on conditioned fear and fear avoidance responses. The conditioned fear and avoidance responses both contribute to IPV. A visual depiction of this theoretical model was created and is depicted in Figure 2.5. Although more research is necessary, George et al.'s model has the potential to change how the medical community assesses and treats IPV.

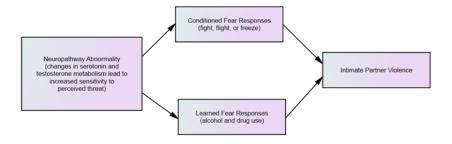


Figure 2-5 Theoretical Model Linking Neuropathway Abnormality to IPV

There are several studies in the literature which support Albert Bandura's (1977) Social Learning Theory and the intergenerational transmission of IPV (e.g. Kalmuss, 1984; Kwong, Bartholomew, Henderson and Trinke, 2003; and Stith et al., 2000). Hines and Saudino's (2004) twin study is the only study to systematically evaluate genetic factors that may contribute to the intergenerational transmission of IPV. The sample for this study included 134 monozygotic and 41 dizygotic same sex twins, recruited at twin conventions. Their findings suggest that heredity may play a role as to whether a person engages in partner aggression. The researchers estimate that twins' shared genes accounted for about 16% of the variance of physical aggression and 22% of the variance of psychological aggression. Unique environmental influences such as a distinct peer group, parental upbringing, accidents, and traumatic events accounted for the remaining variance for both types of aggression, 78% and 84% respectively.

Pinto et al. (2010) hypothesize that genetic factors may have a direct effect on neurochemical functioning, brain morphology, and temperament. Foran and O'Leary (2008) noted that these same factors are associated with alcohol abuse, which is known to contribute to IPV. A theoretical model using these hypotheses was created and is depicted in Figure 2.6.

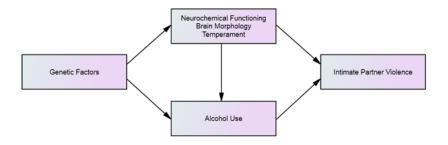


Figure 2-6 Theoretical Model Linking Genetic Factors to IPV

2.5 Summary of Theoretical Framework

After reviewing the policy foundations and intervention components of the Family Advocacy Program, it was clear that a robust theoretical framework with sufficient breadth, depth and explanatory power would be required to study the multifaceted social problem of IPV perpetration within the unique context of the U.S. Army.

It has been asserted that IPV research and intervention has oftentimes been guided more by loyalty to a particular explanatory model or philosophy (e.g. Feminist Theory, Cognitive Behavioral Theory) than by the existence of empirical evidence for such models (Dutton, 2006; Eckhardt, Murphy, Black, and Suhr, 2006; and Murphy and O'Farrell, 1997). The integration of Cognitive Behavioral, Social Learning, Cultural Dimensions, Feminist, Deterrence, and Biological theories all under the ubric of Bioecological Systems Theory, provides a solid foundation for identifying new variables that may be salient to IPV perpetration as well as for assisting in the generation of hypotheses (Figure 2.7).

Of all the terms introduced in this section, perhaps Brofenbrenner's concept of the chronosystem provides the most elucidative way of showing how each theory incorporated in this study's framework accounts for a portion of the variance in IPV perpetration. There is no simple formula determining why a person commits an act of IPV. The act itself is the product of a complex interplay of many other factors (e.g.

biological; childhood experiences; sociohistorical; the impact of family, societal, and organizational cultures; and other influences such as alcohol or command climate) that serve to encourage or deter behaviors.

The term chronosystem implies that to truly understand an individual's behavior, a researcher must take into account the totality of the person's life experiences. To understand and predict IPV perpetration, one must adopt the same approach. Just as a compound microscope achieves greater clarity by using multiple lenses, each additional theory selected for this theoretical framework increases the researcher's ability to clearly see, understand and predict IPV perpetration within the context of the U.S. Army.

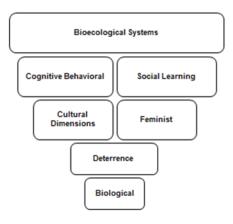


Figure 2-7 Theoretical Framework

2.6 Literature Review

2.6.1 Introduction

This review of the literature summarizes the extant research on factors that have been associated with intimate partner abuse and re-offense within the U.S. Army community.

2.6.2 Gender

McCarroll, Ursano, Fan, and Newby (2004) analyzed the pattern and severity of substantiated non-mutual spouse abuse cases in the Army Central Registry database

from 1998-2002. Their sample consisted of 12,085 victims (U.S. Army soldiers and their spouses). The number of female victims in the dataset was nearly three times the number of males, 73% to 27%. Their analysis suggests that both active duty and civilian female partners are at much greater risk of spouse abuse victimization than males. The average rate of victimization of non-mutual spouse abuse for females was more than 4.5 times the male rate in 2002. Active duty females married to civilian males were the group at the highest risk of victimization in the study.

Sullivan (2009) examined the differences by sex in the perpetration of spouse abuse by male and female Army Soldiers from 2000 to 2004. She found that male offenders perpetrated the majority of all types of abuse. Ninety-five percent of the offenders were male (n=7315), and 5% were female (n=382). Given that the Army is approximately, 86% male and 14% female, Sullivan's findings suggest that males are overrepresented as spouse abusers in the Army. Sullivan also analyzed the perpetration rates of Whites, Blacks, and Hispanics. Males had significantly higher spouse abuse rates than females in all groups.

2.6.3 Ethnicity

Several studies in the literature suggest that spouse abuse perpetration may be more prevalent among non-White than White service members (e.g. McCarroll et al., 2003; Newby et al., 2000; Pan, Neidig and O'Leary, 1994; Rosen, Parmley, Knudson and Fancher, 2002; and Schmaling et al., 2006). Findings by Bell, Harford, McCarroll and Senier (2004) and Newby et al. (2000) indicate that young Black offenders (age 18-21) are overrepresented as spouse offenders in the military. McCarroll, Ursano, Fan and Newby (2004) observed that Black and White victims of non-mutual spouse abuse comprised about 42% each of their sample of 12,085 of U.S. Army Soldiers and their spouses. The percentage of Whites in the Army in 2002 was 58.7% compared to 25.1%

for Blacks suggesting that Black victims were overrepresented. Sullivan (2009) examined the rates of spouse abuse perpetration by ethnicity and found that among males, Blacks had the highest five year rate (12.24 per 1,000), followed by Hispanics (9.63 per 1000) and Whites with a rate of (1.29 per 1000).

2.6.4 Rank

A soldier's rank is indicative of his or her placement on the DoD pay scale, but it can also be used as a proxy variable for age and education. Army ranks are divided into enlisted and officer ranks. To become an officer, an individual must have a four-year college degree. A high school diploma is required for the enlisted ranks. As a soldier's rank increases so will his or her pay, education, and age. Soldiers must complete a minimum amount of time in each rank / pay grade before being promoted to the next rank. Many non-commissioned officers (high-ranking enlisted soldiers) have four-year college degrees and many high-ranking officers have master's degrees.

Among the civilian population, there are many known individual risk factors for spouse abuse including young age, low income, and low academic achievement (Stamm, 2009). Several studies in the literature indicate lower rank is a risk factor for spouse abuse among the military population. Schmaling et al. (2006) conducted a study of 449 deployed soldiers and found that younger age and less education were significant predictors of intimate partner violence. Studies by Cantos, Neidig, and O'Leary (1994); Rosen, Kaminski, Parmley, Knudson, and Fancher (2003); Sullivan (2009) and Wasileski, Callaghan-Chaffee, and Chaffee (1982) also suggest that IPV perpetration is more frequent among enlisted, low-ranking military servicemen than among officers.

2.6.5 Alcohol

Although no studies have demonstrated that alcohol is neither a compulsory nor a sufficient causal element that leads to spouse abuse, multiple studies have shown that

it is one of the most persistent risk factors (Bradley, 2007). According to a 2002 DoD behavioral health survey, heavy alcohol use is significantly higher among Army soldiers than civilians after controlling for differences in the two populations (Bray et al., 2003). Binge drinking is common among enlisted soldiers and has been associated with spouse abuse among military veterans and active duty personnel (Schmaling et al., 2006). Brewster, Milner, Mollerstrom, Saha, and Harris (2002) and McCarroll et al. (1999) found in their analysis of data from Air Force and Army spouse abuse registries that approximately 20% of family violence incidents were preceded by alcohol.

Bell et al. (2004) studied the incidence of alcohol use and spouse abuse among U.S. Army Soldiers and their intimate partners. They found that heavy drinkers were more likely to perpetrate spouse abuse while they were drinking. Additionally, the heavy drinking soldiers were also at greater risk for being involved in a spouse abuse incident when neither they nor their partner was drinking. The results of a study by Rosen et al. (2002) of more than 1000 active duty soldiers indicated that alcohol problem severity was associated with frequency of spouse abuse perpetration by married Army soldiers.

2.6.6 Military Deployments

Although there are multiple studies in literature linking military deployments to increases in family stress (Bowen, 1987; Keller, Herzog-Simmer, and Harris, 1994; Mateczun and Holmes, 1996; Mansfield et al., 2010) there is a paucity of research examining the association of deployment and spouse abuse. It is theorized that deployments contribute to spouse abuse through a variety of factors such as separation, isolation, uncertainty and that they increase stress before, during, and after the deployment (Blount, Curry, & Lubin, 1992; Wasileski et al., 1982; Jones, 2011).

Deployments may place some couples at a higher risk for domestic violence following deployments due to the stress created by role reversals during and after the

deployment (Stamm, 2009). During lengthy overseas deployments, the non-deployed partner must continue to fulfill all of the roles and responsibilities he or she already performs, but also fulfill all of those roles and responsibilities of the deployed service member. When couples are reunited following a deployment, the redeployed service member may expect to settle back into his or her former role in the household. This has the potential to create power struggles, especially over economic decisions and parental responsibilities. Long periods of separation may also foment distrust between couples and lead to multiple accusations of infidelity by both parties.

Research findings by McCarroll et al. (2003) suggest that there does not appear to be an association between deployments and spouse abuse even though deployments may exacerbate a couple's relationship problems. In a study testing the effects of deployment on spousal aggression, they found the risk of post-deployment spousal violence is four to five times greater when couples had a history of pre-deployment domestic violence. Newby et al. (2005) obtained similar results. They found that military deployment was not related to spouse abuse during the ten months following a soldier's deployment. For couples with a history of pre-deployment domestic violence, "the risk of post-deployment domestic violence was greater regardless of deployment status, age, race, or place of residence" (p 646).

2.6.7 Command Climate

A frequent refrain in military circles is that leaders are responsible for everything their soldiers do and do not do. If soldiers do not complete all of their mission essential tasks during regular duty hours, the commander will be held accountable. Commanders are also responsible for the off-duty behavior of their soldiers and their soldiers' family members - to a lesser extent. One of the greatest challenges that Army commanders

face is the need to accomplish the mission and take care of soldiers (and their family members) all at the same time (Johnson and Moyer, 2008).

In 2003, Secretary of the Army Thomas White asked the U.S. Army War College (AWC) to improve how the Army assesses its leaders and to begin developing tools that might help identify leaders with a destructive or toxic leadership style (Bullis and Reed, 2003). There are now several studies in the literature assessing the effects of toxic or destructive leadership on unit morale, task completion and mission accomplishment (e.g. Reed, 2004; Reed and Bullis, 2009; Steele, 2011; and Williams, 2005). There are fewer studies in the literature assessing the effects of leader behavior on command-driven programs such as the Family Advocacy Program. In the civilian sector, prosecutorial and protective actions are the responsibility of judicial authorities. In the military community, commanders are expected to hold offenders accountable, ensure victim safety, and stay focused on their mission.

Rosen et al. (2003) examined the impact of small unit (company level) leadership on self-reported intimate partner violence using a sample 713 soldiers stationed at an Army post in Alaska. The researchers hypothesized that good leadership deters violence by enforcing negative sanctions against offenders and by creating a positive, supportive environment for spouse abuse victims. Results of Rosen et al.'s ordinal logit model suggest that leadership support for sanctions and leadership support for spouse abuse victims are both associated with decreased levels of IPV. Results from their multinominal model suggest that sanction enforcement has a greater deterrent effect on minor IPV, whereas fostering a positive, supportive, environment for spouses has a greater deterrent effect on more severe forms of IPV.

Sayegh (2002) studied the factors that contribute to military commanders' decision-making process in spouse abuse cases. Sayegh's sample consisted of 624

randomly selected 624 Air Force Squadron Commanders stationed worldwide. The key findings of Sayegh's study were that commanders who described themselves as having a "hands off" leadership style and a high operational tempo work environment favored more stringent disciplinary actions for soldiers under their command that perpetrated severe spouse abuse. These same commanders supported less stringent disciplinary actions for soldiers under their command that perpetrated mild-moderate abuse. Although there was significant variation in the responses of "hands off" commanders, the leaders as a group recommended similar disciplinary actions for both the mild-moderate abuse case and the severe abuse case. The implications of these findings according to Sayegh are that military social work practitioners may need to provide further training to military commanders to improve role clarity and disseminate guidelines for commanders to follow so that they are able to make more appropriate, and consistent decisions.

2.7 Purpose of the Study and Conceptual Model

The primary purpose of this study is to fill a gap in the research literature on the use of structured decision-making protocols by case review committees to make determinations about alleged spouse abuse incidents. To date, Snarr, Heyman, Slep, and Malik (2011) are the only researchers to test whether a structured decision-making protocol impacts substantiation and re-offense rates. The sample for their study consisted of active duty Airmen and their family members.

The study marks the first known attempt to assess the deterrent effects of reliable structured decision-making protocols on spouse abuse perpetration and reoffense in the U.S. Army. This quantitative analysis expands the boundaries of existing military social work knowledge by identifying predictive factors (e.g. offender characteristics, alcohol use, command participation in the CRC) that increase or

decrease the odds of incident substantiation and re-offense. Please see Figure 2.8 for a graphical depiction of the conceptual model of the study.

The hypothesized associations in the conceptual model are derived from the theoretical framework. For example, the DTA protocol is hypothesized to moderate the relation between the commander and the offender. The DTA provides commanders with optimal clarity because the abuse criteria are based on valid and reliable definitions and both an action and an impact are required for a case to be substantiated. According to Deterrence Theory, commanders will be more likely to impose informal sanctions when it is clear that a violation of the norm has occurred.

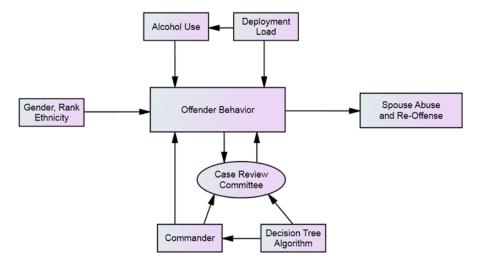


Figure 2-8 Conceptual Model

2.8 Research Questions

The following research questions were answered by this study:

- 1. Did the implementation of the DTA in January 2008 have an impact on spouse abuse incident substantiation and re-offense rates?
- 2. Are offender characteristics and installation deployment load associated with alcohol use by offenders?

- 3. Are offender characteristics, alcohol use, and installation deployment load associated with the likelihood of incident substantiation?
- 4. Are offender characteristics, alcohol use, installation deployment load, command presence, and command concurrence with treatment recommendations associated with the likelihood of re-offense?
- 5. Are command presence and command concurrence with treatment recommendations associated with a specific case outcome (case closure reason)?

Chapter 3

Methodology

3.1 Informed Consent and Confidentiality

Before sending the dataset to the researcher, the Army Medical Department encrypted all personally identifiable information (social security number, date of birth) making it impossible to identify any individual in the data set. The encryption was systematic meaning that the same name was coded the same way each time it appeared. This enabled the researcher to match individuals across incidents. No data was collected for the current study and all personally identifiable information was coded before the researcher received the data. This study did not fall under the domain of human subjects research therefore informed consent was not required ("Office for Human Research Protections," 2008). The protocol received an exemption to the human subject regulations from the University of Texas at Arlington Institutional Review Board. The researcher also received approval to conduct the study from the Department of the Army Family Advocacy Research Subcommittee (FARS).

3.2 Database

The primary source of data for this study is an archival database, the Army Central Registry (ACR), a centralized data bank containing an Armywide confidential index of victim-based spouse and child abuse incidents. This database is located at Fort Sam Houston, Texas and is maintained by the Army Medical Command (AR 608-18, 2011). At a minimum, the entry for each spouse abuse incident included the following information relevant to the current study: the military installation responsible for determination of each incident; encrypted identities and demographics of the offender and victim; the offender's military status (active duty Army or civilian); the victim's military status (active duty Army or civilian); the CRC determination date; the substantiation

decision; and whether and when the case was transferred from one installation to another while still open.

3.3 Study Variables

This section introduces the dependent and independent variables that were used in the analysis. The primary references for the variable definitions are the *DoD Manual for Child Maltreatment and Domestic Abuse Incident Reporting System* (2005), *Army Regulation 608-18* (2007), and the *Army Central Registry Dictionary* (2009).

3.3.1 Dependent Variables

Incident Substantiation

This variable is a dichotomous variable that refers to whether an alleged incident of spouse abuse was substantiated by a CRC. Prior to the implementation of the manualized Decision Tree Algorithm (DTA) protocol in January 2008, the CRC determined spouse abuse incidents in the following manner. The FAP clinician would present each incident of abuse using the format shown in Appendix B. After the presentation of the incident, the CRC members would decide via a majority vote that the incident of abuse was substantiated or unsubstantiated using the spouse / partner maltreatment criteria shown in Appendix C. A substantiated case was defined as an incident determined by the CRC where the preponderance of the available information indicated that maltreatment occurred. An unsubstantiated case was an incident determined by the CRC where the preponderance of the available information indicated that the incident did not occur or there was insufficient information available to support a determination (Army Regulation 608-18, p. 113). Under the old CRC decision-making system, multiple abuse allegation types (e.g. physical abuse, emotional abuse) could be considered by CRC members in making their decision to substantiate an incident or not.

When Case Reviews Committees began using the DTA in January 2008, the criterion-based voting process enabled a separate substantiation decision to be saved in the ACR for each type of abuse that was alleged. For the purposes of comparing offender substantiation and re-offense rates, a case under the DTA was defined as substantiated if at least one abuse type (e.g. physical, emotional) was substantiated.

Re-offense

To analyze re-offense, it was necessary to identify offenders with at least one subsequent case of substantiated abuse in the two year time frame following the closure of their initial case. This variable was a dichotomous variable with one category for "no incidents of re-offense," and a second category for "one or more incidents of re-offense."

When a family advocacy department receives a report of alleged spouse abuse, a FAP clerk enters the data into the online Family Advocacy System of Records (FASOR) and a unique case incident number is generated. Repeat offenders were identified by counting the number of unique prior substantiated determination dates for an abuser's social security number. Open cases transferred between installations also appear as duplicates in the ACR, with a unique incident number from the sending installation and a unique incident number from the receiving installation. The count of the number of unique prior substantiated dates for an abuser excluded transfer-in cases.

Alcohol Use

This variable is a dichotomous variable that refers to whether the offender consumed an alcoholic beverage in the two hour time frame preceding the spouse abuse incident (Manual for Child Maltreatment and Domestic Incident Reporting System, 2005). A response of "unknown" also exists in the ACR database. This code is used when the clinician working with the offender and/or the victim is unable to determine whether or not

alcohol was involved. Unknown responses were coded as "no alcohol use" in this study.

Alcohol use was also used as an independent variable.

Case Closure Reason

The last dependent variable in this study is the case closure reason. To close a substantiated spouse abuse case, a FAP clinician must present the case to the CRC and provide a rationale for closing the case or the "incident closure reason." The CRC concurs or non-concurs with the clinician's recommendation to close the case (Army Regulation 608-18, p. 22). The CRC must also provide one of the following incident closure reasons:

- The CRC determines that intervention and/or treatment is no longer needed or possible (e.g. situations in which the victim doesn't progress in treatment or the alleged offender is a treatment failure or refuses treatment)
- The risk of maltreatment is considered minimal or maltreatment is reduced or no longer present.
- The sponsor and family members are no longer eligible for care.
- The victim died.
- The alleged offender and / or victim refuses treatment.
- The case will be transferred to another installation and reopened to continue treatment. ("Manual for Child Maltreatment and Domestic Abuse," 2005, p. 11)

The initial examination of the ACR dataset revealed that in addition to the six case closure reasons mandated by the *DOD Manual for Child Maltreatment and Domestic Abuse*, there were seventeen additional case closures reasons utilized by FAP clinicians and case review committees. A case closure coding scheme was developed by consolidating the twenty-three case closure reasons in the ACR original dataset into four categories (Table 3.1) using the definitions from the *DoD Manual for Child Maltreatment and Domestic Abuse* as a guide and delineating tool. Incidents with case closure reasons

placing them in the "treatment not complete" or "no CRC oversight required" categories were excluded from all analyses. As a result, case closure reason was transformed into a dichotomous dependent variable with one category for "successful treatment outcome" and a second category for "unsuccessful treatment outcome."

Table 3.1 Case Closure Coding Scheme

New Code	No.	ACR Database Code	f	%
Successful treatment outcome	1 2 3 4 5	Victim completed partial treatment Victim completed treatment Offender completed partial treatment Offender completed treatment Maltreatment not present	17 78 527 1,378 6,739	0.0 0.1 0.7 1.7 8.5
		Subtotal	8,739	11
Unsuccessful treatment outcome	6 7 8 9 10 11	Victim refused treatment Offender treatment failure Victim deceased Offender refused treatment Refused treatment Intervention not needed / possible	38 42 65 334 2,411 10,767	0.0 0.1 0.1 0.4 3.1 13.7
		Subtotal	13,657	17.4
Treatment not completed	12 13 14 15 16 17 18 19 20	Offender deceased Victim not available for treatment Offender non beneficiaries Victim no longer eligible for care Offender unable to locate Offender not available for treatment Offender no longer eligible for care Transfer out No longer eligible for care	8 11 17 29 48 175 472 1,751 4,931	0.0 0.0 0.0 0.0 0.1 0.2 0.6 2.2 6.3
No CRC oversight required or closure reason not entered	21 22 23	Subtotal Closure - did not meet criteria Outcome not recorded 1) Closure did not meet criteria	7,442 3,774 4,852 40,410	9.4 4.8 4.8 51.2
		Subtotal	49,036	62.2
		Total Incidents	78,874	100

Note. Army Central Registry incidents determined between October 2003 and June 2013.

3.3.2 Independent Variables

Demographic Variables

Demographic variables analyzed in the study included the offenders gender, ethnicity, and active duty rank (when applicable).

Time-Period

This variable is a dichotomous variable that refers to the time-period when the spouse abuse incident occurred. Incidents that occurred prior to the implementation of the DTA (2004 - 2005) were coded as "1." Incidents that occurred in the two years following the implementation of the DTA (2008 - 2009) were coded as "0."

The DTA is a manualized decision-making protocol that employs research-based abuse definitions developed by Heyman and Slep, 2006. Army case review committees may follow a hard copy version of the DTA or use an automated online version known as the Family Advocacy System of Records (FASOR). Army case review committees began using the DTA worldwide in January 2008. Please see section (2.2.3) for a detailed discussion of the CRC and Appendix A for an example of the DTA voting criteria and abuse definitions ("U.S. Army Medical Command Decision Tree Algorithm," 2007).

To avoid a spillover effect from offenders who completed treatment under the old system and re-offended under the new system, it was necessary to identify abuser social security numbers appearing in time-period 2 (post 2007) after appearing in time-period 1 (pre-2007). A total of 306 spillover cases were identified and filtered out of the dataset.

Deployment Load

Deployment load is a major contributor to a military unit's Operational Tempo (OPTEMPO), a construct that became popular during the 1990s to describe the "do more with less" mentality (Castro and Adler, 2005). Although there are several possible definitions, OPTEMPO is perhaps best defined as "the pace of military operations"

(Castro & Adler, 1999, p. 87). Operational Tempo is comprised of three components: the garrison load, the training load, and the deployment load (Castro and Adler, 2005).

Deployment load may be defined as the average number of times an individual soldier or a group of soldiers were deployed for more than a specified number of days (30, 60, 90, 180) during a longer specified time-period (2, 3, 4, or 5 years) (Thomas and Adler, 2005). Neither individual level nor aggregate (installation) deployment level data is recorded in the ACR. Another database, the Defense Manpower Data Center (DMDC) was queried to obtain installation level deployment data for fiscal years 2003 through 2010. Deployment load was operationalized as the mean rate of deployment for each installation for calendar years 2003-2006 for cases substantiated under the old system, and 2007-2010 for cases substantiated using the DTA.

Defining deployment load as the four year mean rate of deployed soldiers per installation offers several advantages over using the raw number of deployed soldiers per calendar year. First, an installation with a high deployment load will have experienced a corresponding increase in the training load before the deployment and the garrison load following the deployment. The garrison, training, and deployment environments each contain unique stressors that affect outcomes such as military performance, soldier health, retention and family readiness (Castro and Adler, 2005). The four year mean rate of deployed soldiers more accurately reflects the effect of garrison, training, and deployment stress on spouse abuse substantiation and re-offense rates.

Second, many Army installations are likely to have high numbers of deployed soldiers and low numbers of substantiated spouse abuse incidents during a given calendar year at the height of Operation Iraqi Freedom. The rates of spouse abuse and re-offense decline dramatically on installations while the troops are deployed because the majority of soldiers are geographically separated from their spouses by thousands of

miles. Defining deployment load as the raw number of deployed soldiers per installation during a one year time frame could skew the results of the study. Figure 3.1 illustrates how the rate of deployed active duty soldiers at Army installations may fluctuate dramatically from year to year.

Finally, using the four year mean rate of soldier deployments per Army installation helps mitigate the effects of the largest known historical events on the study, multiple troop deployments to Iraq and Afghanistan. The introduction of deployment load as an independent variable in the study allowed the researcher to hold its effects in constant while estimating the effects of the other independent variables on spouse abuse substantiation and re-offense rates.

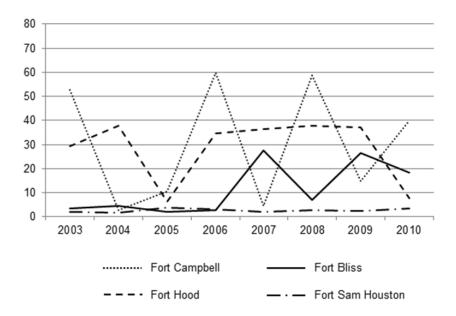


Figure 3-1 Percentage of Deployed Soldiers at Four Major U.S. Army Installations

Command Presence

Command presence refers to whether a representative (usually a company grade officer or non-commissioned officer) from the chain of command was present to provide

input at the case review committee. A representative from command is invited to participate in the CRC regardless of whether the soldier involved was an offender or victim of spouse abuse. When both the offender and victim are active duty soldiers, representatives from both commands are invited to participate in the CRC. Command presence was coded as "0" in the dataset. If a soldier was not represented by a member from his or her chain of command at the CRC, it was coded as "1."

Command Concurrence

Command concurrence refers to whether a representative (usually a company grade officer or a non-commissioned officer) from the chain of command concurred with and agreed to support the CRC treatment recommendations. A commander does not have to be present at the CRC to concur with the treatment recommendations. He or she may review the recommendations at a later date. Upon receipt of the recommendations, he or she must acknowledge receipt and concur or non-concur in writing. Command concurrence was coded as "0" in the dataset. Non-concurrence was coded as "1."

3.5 Hypotheses

The research hypotheses are divided into five categories that correspond to research questions 1 through 5 in Section 2.8.

- 3.5.1 Incident Substantiation and Re-offense Rates Before and After the Implementation of the Decision Tree Algorithm
- Research Hypothesis 1A: The proportion of substantiated spouse abuse incidents will be higher in the time-period prior to the implementation of the DTA than the time-period after the implementation of the DTA.
- Research Hypothesis 1B: The proportion of offenders that reoffend will be higher in the time-period prior to the implementation of the DTA than the time-period after the implementation of the DTA.

- Research Hypothesis 1C: Spouse abuse incident substantiation will be associated with time-period.
- Research Hypothesis 1D: Re-offense will be associated with time-period.
 - 3.5.2 Factors Associated with Offender Alcohol Use
- Research Hypothesis 2A: Gender, ethnicity and rank will be predictive factors of alcohol use.
- Research Hypothesis 2B: Deployment load will be a predictive factor of alcohol use.
 - 3.5.3 Factors Associated with Incident Substantiation
- Research Hypothesis 3A: Gender, ethnicity and rank will be predictive factors of incident substantiation.
- Research Hypothesis 3B: Alcohol use will be a predictive factor of incident substantiation.
- Research Hypothesis 3C: Deployment load will be a predictive factor of incident substantiation.
 - 3.5.4 Factors Associated with Re-Offense
- Research Hypothesis 4A: Gender, ethnicity and rank will be predictive factors of reoffense.
- Research Hypothesis 4B: Alcohol use will be a predictive factor of re-offense.
- Research Hypothesis 4C: Deployment load will be a predictive factor of re-offense.
- Research Hypothesis 4D: Command presence and command concurrence will be predictive factors of re-offense.
 - 3.5.5 Factors Associated with Case Closure Reason
- Research Hypothesis 5A: Command presence and command concurrence will be predictive factors of case closure reason.

Chapter 4

Data Analysis and Results

4.1 Procedures

The guiding research questions for the data analysis were as follows: 1) Did the implementation of a new manualized structured decision-making protocol, the Decision Tree Algorithm, impact the rates of spouse abuse perpetration and re-offense in the U.S. Army? 2) What are the sociodemographic and ecological determinants that increase or decrease the odds of spouse abuse incident substantiation and re-offense in the U.S. Army community?

The first phase in the analysis consisted of cleaning the dataset, converting string variables to numeric variables, and using descriptive statistics to organize, summarize and identify the most salient aspects of the Army Central Registry and Defense Manpower datasets utilized in this study. The second phase of the analysis involved testing hypotheses using the SPSS-21 crosstabs option to conduct chi-square tests of independence to assess whether the implementation of the DTA had an impact on spouse abuse substantiation and re-offense rates. The third phase of the analysis focused on identifying the predictive factors (e.g., time-period, sex, ethnicity, rank, alcohol use, and command presence) that increase or decrease the odds of alcohol use, incident substantiation, and re-offense. All multilevel logistic regressions in the third phase of the analysis were conducted using HLM-7 software using the steps and procedures outlined in Garson's (2013) *Hierarchical Linear Modeling Guide* (pp. 61-80).

4.1.1 Power Calculations

Power calculations for hypotheses 1A and 1B were performed using the proportion of substantiated spouse abuse incidents and re-offense incidents for the time periods before and after the implementation of the DTA. For hypothesis 1A, the

proportion of substantiated incidents in time-period 1 was .47 (6,163 out of 13,056) compared to .39 (6,146 out of 15,709) for time-period 2. To achieve a minimum power level of 90% with an alpha level of .001 for hypothesis 1A, time-period 1 needed a minimum of 1791 unique spouse abuse incidents, and time-period two needed to have at least 1487. For hypothesis 1A, both time-period 1 and time-period 2 exceeded these minimum size requirements.

For hypothesis 1B, the proportion of re-offense incidents in time-period 1 was .08 (1079 out of 13,056) compared to .04 (627 out of 15,709) for time-period 2. To achieve a minimum power level of 90% with an alpha level of .001, time-period 1 needed to have a minimum of 1,505 unique spouse abuse incidents, and time-period 2 needed to have at least 1,249. For hypothesis 1B, both time-period 1 and time-period 2 exceeded these minimum size requirements. Statistical power for the remaining hypotheses (1C thru 5A) were calculated using the statistical program G*power, version 3.

4.2 Description of the Data

The five datasets used in this study to test the research hypotheses were systematically extracted from an Army Central Registry (ACR) dataset containing 78,874 unique spouse abuse incidents determined between October 2003 and June 2013. Each incident in the dataset involves two individuals: an alleged or substantiated spouse abuse offender and a victim. The spouse abuse incidents were nested among 82 Army installations in the U.S. and around the world.

The offenders in the primary ACR dataset consisted of 42,507 Army enlisted soldiers (53.9%) and 36,367 civilian spouses (46.1%). Of the incidents with an entry for offender gender, 42,317 were male (67%), and 20,800 (33%) were female. The victims in this dataset consisted of 65,373 civilian spouses (82.9%) and 13,501 active-duty enlisted

Army soldiers (16.5%). Of the incidents with an entry for the victim's gender 42,275 were female (67%) and 20,869 were male (33%).

Table 4.1 shows a breakdown of the five datasets that were extracted from the primary ACR dataset by hypotheses number, dependent variable, and the filter variables used to create each dataset.

Table 4.1 Dataset Index

Hypothesis	Sample	Dependent Variable	Determination Years Included	Additional Filter Variables	Total Participants
1A, 1B	1	Incident Substantiation	2004, 2005, 2008, 2009	None	n = 28,765
1C, 1D	1	Re-offense		None	n = 28,765
2A, 2B	2	Alcohol Use	2008, 2009	Incident Substantiation	n = 6,087
3A, 3B, 3C	3	Incident Substantiation	2008, 2009	None	n =15,341
4A, 4B, 4C	2	Re-offense	2008, 2009	Incident Substantiation	n = 6,087
4D, 5A Command presence	4	Re-offense	2003-2013	Command Presence Closure reason	n = 5,279
4D, 5A Command Concurrence	5	Re-offense	2003-2013	Command Concurrence Closure Reason	n = 587

4.2.1 Sociodemographic Characteristics of the Substantiated Spouse Abuse Offenders

In both of the time-periods analyzed in this study (2004-2005 and 2008-2009) about 70% of the offenders were male, 12% were Hispanic, 3% were Asian and 1.0 % were Native American. The two largest categories of offenders were non-active duty civilian spouses (about 34%) and active-duty soldiers in the rank Private First Class or Specialist (about 33%). The percentage of offenders identified as having used alcohol prior to or during the spouse abuse incidents was also similar, 22.3% in 2004-2005 and 25.3% in 2008-2009.

The percentage of Black offenders (42.8%) outnumbered White offenders (40.5%) in 2004-2005, but the reverse was true in 2008-2009. The percentage of White offenders increased to 49.1% while the number of Black offenders decreased to 34.1%. This change may be explained in part by the fact that from 2004 to 2009, the percentage of White active duty soldiers in the Army increased from 65.7% to 69.6% while the number of Black active duty soldiers decreased from 23.1% to 20.1%.

The sociodemographic characteristics of the substantiated spouse abuse offenders included in the study are summarized in Table 4.2.

Table 4.2 Socidodemographic Characters of the Spouse Abuse Offenders

Descriptor	2004-	2005	2008-2009		
Occiden	N	%	n	%	
Gender	4.450	67.4	4.054	70.0	
Male Female	4,153 1,991	67.4 32.3	4,354 1,733	70.8 28.2	
	1,00		1,100		
Ethnicity					
White	2,497	40.5	3,019	49.1	
Black	2,635	42.8	2,093	34.1	
Hispanic	750	12.2	723	11.8	
Asian	178	2.9	157	2.6	
Native American	61	1.0	60	1.0	
Other or no entry	42	0.7	94	1.5	
Pay Grade / Rank					
E1 – E2	358	5.8	561	9.2	
E3 – E4	2,017	32.7	2,122	34.5	
E5 – E6	1,328	21.5	1,206	19.6	
E7 – E8	215	3.5	207	3.4	
E9 – above	8	0.1	9	0.1	
Non Active Duty Spouse	2,237	36.4	2,041	33.2	
Alcohol					
Alcohol use	1,373	22.3	1,552	25.3	
No involvement or	4,790	77.7	4,594	74.7	
unknown	.,. 00		1,001		

Note. n = 6,163 for 2004-2005; n = 6,146 for 2008-2009.

4.3 Ecological Factors

4.3.1 Installation Deployment Load

In 2004-2005, the substantiated and unsubstantiated spouse abuse incidents were nested among 82 Army installations. The mean rate of deployment per installation for calendar years 2003-2006 (the deployment load) for this pre DTA time-period ranged from 0% to 49% with a mean of 18.4%, and a standard deviation of 10.2%.

In 2008-2009, the substantiated and unsubstantiated spouse abuse incidents were nested among fewer Army installations (n=76), as six bases were consolidated or closed. The 2007-2010 deployment load for this post DTA time-period ranged from 0% to 48% with a mean of 22.1%, and standard deviation of 10.3. The total Army deployment rates for 2003 through 2010 are displayed in Table 4.3.

Table 4.3 U.S. Army Soldier Deployments 2003-2010

Calendar Year	Not Deployed	Deployed >190 days	Percent Deployed	Total
2003 2004 2005 2006 2007 2008 2009	357,532 387,910 374,246 373,344 358,973 381,297 411,322	88,881 62,943 71,951 88,992 114,136 114,497 92,845	19.9 14.0 16.1 19.3 24.1 23.1 18.4	446,413 450,853 446,197 462,336 473,109 495,794 504,167
2010	427,005	95,292	18.2	522,297

Note. Defense Manpower Data Center, 2013.

4.3.2 Substantiation and Re-offense Rates

The substantiation and re-offense rates varied dramatically from one installation to another, a fact that is not surprising given that some case review committees are responsible for only one spouse abuse incident per year while others are responsible for more than one thousand incidents. Army installation substantiation and re-offense rates were compared for installations with one hundred or more incidents during the 2004-2005 time-period and the 2008-2009 time-period. The mean substantiation rate for the 2004-2005 time-period was 50.1% and the mean re-offense rate was 9.1%. Both figures were higher than the 2008-2009 rates of 41.4% and 4.4% respectively. The standard deviation and variance associated with the substantiation rate and re-offense rates were also higher during the 2004-2005 time-period than the 2008-2009 time-period (Table 4.4).

Table 4.4 Army Installation Substantiation and Re-offense Rates: Standard Deviation and Variance

	Pre DTA 2004-2005	Post DTA 2008-2009
Substantiation Rate	%	%
Mean Standard Deviation Variance	50.1 14.2 200.3	41.4 10.5 110.3
Re-Offense Rate		
Mean Standard Deviation Variance	9.1 3.6 12.9	4.4 2.0 4.0

Note. Calculations were conducted for installations with 100 or more cases; n=30 for both time-periods, Rate = rate per 100 spouse abuse incidents.

4.4 Hypotheses Testing

4.4.1 Hypotheses 1A and 1B

1A: The proportion of substantiated spouse abuse incidents will be higher in the timeperiod prior to the implementation of the DTA than in the time-period after the implementation of the DTA.

Although the chi-square is a nonparametric test, there are two assumptions that must be met. Both variables should be measured on a nominal scale and each observation should be independent of every other (Drake and Johnson-Reid, 2008). A chi-square test of independence was calculated to test hypothesis 1A. A significant interaction was found ($X^2(1) = 190.164$, p > .001). Spouse abuse incidents were more likely to be substantiated (47.2%) in 2004-2005, prior to the implementation of the DTA, than in 2008-2009 following its implementation (39.1%). The results support hypothesis 1A. It was hypothesized that case review committees using the more stringent DTA

criteria (that require both an action and an impact) would have a lower substantiation rate than committees using the old system. The results are summarized in Table 4.5.

1B: The proportion of offenders that reoffend will be higher in the time-period prior to the implementation of the DTA than in the time-period after the implementation of the DTA.

To hypothesis 1B, a chi-square test of independence was calculated. A significant interaction was found (X^2 (1) = 233.351, p> .001). Spouse abuse offenders were more likely to reoffend (8.3%) in 2004-2005, prior to the implementation of the DTA than in 2008-2009 following its implementation (4.0%). It was hypothesized that case review committees using the more stringent DTA criteria (that require both an action and an impact) would have a lower substantiation rate than committees using the old system. Table 4.6 summarizes the results.

Table 4.5 Incident Substantiation Frequency by Time-Period

		efore DTA After DTA (2008-2009)				
Dependent Variable	%	N	%	n	%	n
Unsubstantiated	52.8	6,893	60.9	9,563	57.2	16,456
Substantiated	47.2	6,163	39.1	6,146	42.8	12,309
Total	100.0	13,056	100.0	15,709	100.00	28,765

Note. $X^2 = 190.164$, df = 1, p<.001, Phi = .08

Table 4.6 Frequencies of Re-Offense by Time-Period

		Before DTA After DTA Total 2004 – 2007) (2008 – 2011)				otal
Dependent Variable	%	N	% n		%	n
Did not re-offend	91.7	11,977	96.0	15,082	94.1	27,059
Re-offended	8.3	1,079	4.0	627	5.9	1,706
Total	100.0	13,056	100	15,709	100	28,765

Note. $X^2 = 233.551$, df = 1, p < .001, phi = .090

4.4.2 Hypothesis 1C

1C: Spouse abuse incident substantiation will be associated with time-period.

To test this hypothesis, a two-step multilevel logistic regression was used (Table 4.7). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The null model tested whether the level two grouping variable, Army installation, had a random effect on the level 1 intercept of the dependent variable, incident substantiation. The component for the intercept, τ (tau) (.442) was significant, p <.001. The dependent variable was significantly affected by the grouping variable (installation) and a multilevel statistical analysis was appropriate.

In Step 2, time-period was entered into the regression as a level 1 predictor. This significantly improved the model fit (Table 4.8). The results of the Step 2 model confirm hypothesis 1C. An incident of alleged spouse abuse presented to the CRC in the time-period before the implementation of the DTA (2004-2005) had a 1.4 times greater odds of being substantiated than an incident presented to the CRC in the time-period (2008-2009) following the implementation of the DTA (Table 4.9).

Table 4.7 HLM Mixed Model Equations for Hypothesis 1C

Null Model $\eta_{ij} = \gamma_{00} + u_{0j}$ Model 2 $\eta_{ij} = \gamma_{00} + \gamma_{10}*(Time_period)_{ij} + u_{0j}$ Time-Period

Note. Outcome variable is incident substantiation.

Table 4.8 Fit Comparison Table for Hypothesis 1C

Model	Parameters	-2LL	Δ-2LL	df	р
Null Model	2	91,170.869	-	-	-
Model 2	3	90,959.210	211.600	1	.001

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.9 Multilevel Logistic Regression Results Predicting Incident Substantiation from Time-Period

						Interval	nfidence for Odds atio
Predictor Variables	В	SE	df	Р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	392	.059	81	.001	.676	.601	.759
Time (04-05) vs. (08-09)	.349	.024	28,682	.001	1.418	1.352	1.488

Note. Level 1 includes (2004-2005 & 2008-2009) spouse abuse incidents (n = 28,765); Level 2 installations (n= 82).

4.4.3 Hypothesis 1D

1D: Re-offense will be associated with time-period.

To test this hypothesis, a two-step multilevel logistic regression was used (Table 4.10). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The null model tested whether the level two grouping variable, Army installation, had a random effect on the level 1 intercept of the dependent variable, reoffense. The component for the intercept τ (.103) was significant, p <.001. The dependent variable was significantly affected by the grouping variable (installation) and a multilevel statistical analysis was appropriate.

In Step 2, time-period was entered into the regression as a level 1 predictor. This significantly improved the model fit (Table 4.11). The results of the Step 2 model confirm hypothesis 1D. Offenders whose cases were determined by the CRC in the time-period before the implementation of the DTA (2004-2005) had a 2.1 times greater likelihood of re-offense than offenders whose cases were determined by the CRC in the time-period (2008-2009) after the implementation of the DTA (Table 4.12)

Table 4.10 HLM Mixed Model Equations for Hypothesis 1D

Null Model	$\eta_{ij} = \gamma_{00} + u_{0j}$
Model 2 <i>Time Period</i>	$\eta_{ij} = \gamma_{00} + \gamma_{10}*(Time_Period)_{ij} + u_{0j}$

Note. Outcome variable is re-offense.

Table 4.11 Fit Comparison Table for Hypothesis 1D

Model	Parameters	-2LL	Δ-2LL	df	р
Null Model	2	65671.067	-	-	-
Model 2	3	65447.874	223.193	1	.001

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.12 Multilevel Logistic Regression Results Predicting Re-offense from Time-Period

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	df	p	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	-3.096	.061	81	.001	.045	.040	.051
Time (04-05) vs. (08-09)	.766	.050	28,682	.001	2.150	1.948	2.374

Note. Level 1 includes (2004-2005 & 2008-2009) spouse abuse incidents (n = 28,765); Level 2 installations (n = 82).

4.4.4 Hypotheses 2A and 2B

2A: Gender, ethnicity and rank will be predicative factors of alcohol use.

2B: Deployment load will be a predictive factor of alcohol use.

To test these hypotheses, a sequential step-by-step multilevel logistic regression was used (Table 4.13). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The null model tested whether the level two grouping variable, Army installation, had a random effect on the level 1 intercept of the dependent variable, alcohol use. The component for the intercept τ (.159) was significant, p <.001. This means that the dependent variable was significantly affected by the grouping variable (installation) and a multilevel statistical analysis was appropriate.

In Step 2, gender was entered into the regression as a level 1 predictor. This significantly improved the model fit. In Step 3, ethnicity was entered into the regression as a level 1 predictor and this resulted in another significant reduction (Δ -2LL=135, p<.001) in the deviance statistic. In Step 4, rank was entered into regression as a level 1 predictor. This model was rejected as it did not significantly reduce the deviance statistic

and therefore did not improve the model fit. In Step 5, deployment load was entered into the regression as a level 2 predictor. The Step 5 model was also rejected as it was not a significant improvement over the Step 3 model. The models are compared in Table 4.14.

The results of the final model (Table 4.15) partially confirm hypothesis 2A. Male spouse abuse offenders had a 1.3 times higher chance of alcohol use than females. White offenders had a 2.1 times higher chance of alcohol use than Blacks and a 1.7 times higher chance of alcohol use than Hispanics. An offender's rank was not a significant predictor of alcohol use.

Hypothesis 2B was rejected based on the results of the logistic regression analysis. An installation's deployment load was not a significant predictor of offender alcohol use.

Table 4.13 HLM Mixed Model Equations for Hypothesis 2A, 2B

Null Model	$\eta_{ij} = \gamma_{00} + u_{0j}$
Model 2 (Gender)	$\eta_{ij} = \gamma_{00} + \gamma_{10}^* (Gender)_{ij} + u_{0j}$
Model 3 (Ethnicity)	$ \eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(Black)_{ij} + \gamma_{30}*(Hispanic)_{ij} + \gamma_{40}*(Asian)_{ij} + \gamma_{50}*(Native American)_{ij} + \gamma_{60}*(Other)_{ij} + u_{0j} $
Model 4 (Rank)	$ \eta_{ij} = \gamma_{00} + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(Black)_{ij} + \gamma_{30}^*(Hispanic)_{ij} + \gamma_{40}^*(Asian)_{ij} + \gamma_{50}^*(Native\ American)_{ij} + \gamma_{60}^*(Other)_{ij} + \gamma_{70}^*(E1_E2)_{ij} + \gamma_{80}^*(E3_E4)_{ij} + \gamma_{90}^*(E5_E6)_{ij} + \gamma_{100}^*(E7_E8)_{ij} + \gamma_{110}^*(E9_Above)_{ij} + u_{0j} $
Model 5 (Deployment)	$ \eta_{ij} = \gamma_{00} + \gamma_{01}*(Deployment_Load)_j + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(Black)_{ij} + \gamma_{30}*(Hispanic)_{ij} + \gamma_{40}*(Asian)_{ij} + \gamma_{50}*(Native American)_{ij} + \gamma_{60}*(Other)_{ij} $ u_{0j}
Final Model	$ \eta_{ij} = \gamma_{00} + \gamma_{10}^* (Gender)_{ij} + \gamma_{20}^* (Black)_{ij} + \gamma_{30}^* (Hispanic)_{ij} + \gamma_{40}^* (Asian)_{ij} + \gamma_{50}^* (Native American)_{ij} + \gamma_{60}^* (Other)_{ij} + u_{0j} $

Note. Outcome variable is offender alcohol use.

Table 4.14 Model Fit Comparison Table for Hypothesis 2A, 2B

Model	Parameters	-2LL	Δ-2LL	df	р
Null Model	2	18166.084	-	-	-
Model 2 <i>Gender</i>	3	17990.479	175.604	1	.001
Model 3 Ethnicity	8	17855.224	135.255	5	.001
Model 4 <i>Rank</i>	13	17850.957	4.267	5	.500
Model 5 Deployment	9	17851.538	3.686	1	.052

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant. Models 4 and 5 were rejected as they did not significantly improve model fit.

Table 4.15 Multilevel Logistic Regression Results Predicting Alcohol Use from Demographic Variables and Deployment Load

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	df	р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	.645	.077	70	.001	1.906	1.633	2.224
Male vs. Female	.309	.068	6069	.001	1.362	1.192	1.556
White vs. Black	.745	.069	6069	.001	2.106	1.838	2.413
White vs. Hispanic	.539	.099	6069	.001	1.715	1.412	2.082
White vs. Asian	.258	.190	6069	.174	1.294	.892	1.878
White vs. N. American	263	.272	6069	.332	.768	.451	1.309
White vs. Other	234	.355	6069	.510	.791	.394	1.588

Note. Level 1 includes (2008-2009) substantiated spouse abuse incidents (n = 6087); Level 2 installations (n= 71).

4.4.5 Hypotheses 3A, 3B, 3C

- 3A: Gender, ethnicity and rank will be predictive factors of incident substantiation.
- 3B: Alcohol use will be a predictive factor of incident substantiation.
- 3C: Deployment load will be a predictive factor of incident substantiation.

A sequential step-by-step multilevel logistic regression was used to test hypotheses 3A, 3B, and 3C (Table 4.16). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The null model tested whether the level

2 grouping variable, Army installation, had a random effect on the level 1 intercept of the dependent variable, incident substantiation. The component for the intercept τ (.174) was significant, p <.001. This means that the dependent variable was significantly affected by the grouping variable (installation) and that a multilevel statistical analysis was appropriate.

Level 1 predictors were entered into the regression sequentially in Step 2 (gender), Step 3 (ethnicity), Step 4 (rank), and Step 5 (alcohol). Each model was compared to the previous model and each step significantly improved the model fit, reducing the deviance statistic from 1120.4 to 140.3. In Step 6, deployment load was entered into the regression as a level 2 predictor. The Step 6 model was rejected as it failed to significantly reduce the deviance statistic (Δ -2LL=2.167, p<.137). Table 4.17 compares the models.

The results of the final model (Table 4.18) confirm hypotheses 3A and 3B. The odds that a male offender's case would be substantiated were 1.7 times the odds of a female offender's case. The odds that a Black or Hispanic offender's case would be substantiated were about 1.2 times the odds of a White offender's case. Non-active duty Army spouses showed a 1.5 to 1.9 times greater likelihood of being offenders than Army enlisted soldiers in the ranks of Private through Master Sergeant (pay grades E1 - E8).

Hypothesis 3C was rejected based on the results of the logistic regression analysis. An installation's deployment load was not a significant predictor of incident substantiation.

Table 4.16 HLM Mixed Model Equations for Hypothesis 3A, 3B, 3C

Null Model	$\eta_{ij} = \gamma_{00} + u_{0j}$
Model 2 Gender	$\eta_{ij} = \gamma_{00} + \gamma_{10}^* (Gender)_{ij} + u_{0j}$
Model 3 Ethnicity	$\eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(Black)_{ij} + \gamma_{30}*(Hispanic)_{ij} + \gamma_{40}*(Asian)_{ij} + \gamma_{50}*(Native American)_{ij} + u_{0j}$
Model 4 Rank	$ \eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(Black)_{ij} + \gamma_{30}*(Hispanic)_{ij} + \gamma_{40}*(Asian)_{ij} + \gamma_{50}*(Native American)_{ij} + \gamma_{60}*(E1_E2)_{ij} + \gamma_{70}*(E3_E4)_{ij} + \gamma_{80}*(E5_E6)_{ij} + \gamma_{90}*(E7_E8)_{ij} + \gamma_{100}*(E9_Above)_{ij} + u_{0j} $
Model 5 Alcohol	$ \eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(Black)ij + \gamma_{30}*(Hispanic)_{ij} + \gamma_{40}*(Asian)_{ij} + \gamma_{50}*(Native\ American)_{ij} + \gamma_{60}*(E1_E2)_{ij} + \gamma_{70}*(E3_E4)_{ij} + \gamma_{80}*(E5_E6)_{ij} + \gamma_{90}*(E7_E8)_{ij} + \gamma_{100}*(E9_Above)_{ij} + \gamma_{110}*(Alcohol)_{ij} + u_{0j} $
Model 6 Deployment	$ \eta_{ij} = \gamma_{00} + \gamma_{01}^*(Dep_Load)_j + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(Black)_{ij} + \gamma_{30}^*(Hispanic)_{ij} + \gamma_{40}^*(Asian)_{ij} + \gamma_{50}^*(Native\ American)_{ij} + \gamma_{60}^*(E1_E2)_{ij} + \gamma_{70}^*(E3_E4)_{ij} + \gamma_{80}^*(E5_E6)_{ij} + \gamma_{90}^*(E7_E8)_{ij} + \gamma_{100}^*(E9_Above)_{ij} + \gamma_{110}^*(Alcohol)_{ij} + u_{0j} $
Final Model	$ \eta_{ij} = \gamma_{00} + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(Black)ij + \gamma_{30}^*(Hispanic)_{ij} + \gamma_{40}^*(Asian)_{ij} + \gamma_{50}^*(Native\ American)_{ij} + \gamma_{60}^*(E1_E2)_{ij} + \gamma_{70}^*(E3_E4)_{ij} + \gamma_{80}^*(E5_E6)_{ij} + \gamma_{90}^*(E7_E8)_{ij} + \gamma_{100}^*(E9_Above)_{ij} + \gamma_{110}^*(Alcohol)ij + u_{0j} $

Note. Outcome is incident substantiation.

Table 4.17 Model Fit Comparison Table Hypothesis 3A, 3B, 3C

Model	Parameters	-2LL	Δ-2LL	df	р
Null Model	2	49299.937	-	-	-
Model 2 Gender	3	48179.529	1120.408	1	.001
Model 3 Ethnicity	7	48149.617	29.912	4	.001
Model 4 <i>Rank</i>	12	48021.290	128.327	5	.001
Model 5 Alcohol	13	47880.978	140.312	1	.001
Model 6 Deployment	14	47878.812	2.167	1	.137

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant. Model 6 was rejected, as it did not significantly improve model fit.

Table 4.18 Multilevel Logistic Regression Results: Predicting Incident Substantiation from Demographic Variables, Alcohol Use, Deployment Load

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	df	р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	011	.080	74	.896	.990	.844	1.160
Male vs. female	.531	.052	15,624	.001	1.700	1.536	1.882
Black vs. White	.246	.053	15,624	.001	1.279	1.153	1.420
Hispanic vs. White	.192	.067	15,624	.001	1.211	1.063	1.381
Asian vs. White	.083	.133	15,624	.469	1.086	.838	1.409
N. American vs. White	.309	.179	15,624	.112	1.361	.959	1.933
non-military vs. E1-E2	.411	.074	15,624	.001	1.509	1.306	1.743
non-military vs. E3-E4	.512	.054	15,624	.001	1.668	1.500	1.856
non-military vs. E5-E6	.594	.060	15,624	.001	1.811	1.610	2.038
non-military vs. E7-E8	.666	.101	15,624	.001	1.946	1.598	2.371
non-military vs. E9-above	.419	.440	15,624	.341	1.521	.642	3.603
Alcohol use	.504	.052	15,624	.001	1.656	1.494	1.835

Note. Level 1 includes (2008-2009) spouse abuse incidents (n = 15,341); Level 2 installations (n= 75)

- 4.4.6 Hypotheses 4A, 4B, 4C, 4D
- 4A: Gender, ethnicity and rank will be predictive factors of re-offense.
- 4B: Alcohol use will be a predictive factor of re-offense.
- 4C: Deployment load will be a predictive factor of re-offense.

The same procedure used to test hypotheses 3A thru 3C, a sequential step-by-step multilevel logistic regression, was employed to test hypotheses 4A thru 4C (Table 4.19). A null model or baseline model was generated with no predictors at level 1 or level 2 for the step-by-step regression used to test hypotheses 4A-4C. The component for the intercept τ (.081) was significant, ρ <.001. This means that the dependent variable was significantly affected by the grouping variable (installation) and that a multilevel statistical analysis was appropriate.

Level 1 predictors were entered into the regression sequentially in Step 2 (gender), Step 3 (ethnicity), Step 4 (rank), and Step 5 (alcohol use). Each model was compared to the previous model. The Step 2 model (gender) and Step 4 model (rank) produced significant drops in the deviance statistic and improved model fit. The Step 3 model (ethnicity) and the Step 5 model (alcohol) were rejected as they failed to significantly improve model fit.

In Step 6, deployment load was entered into the regression as a level 2 predictor. The Step 6 model was rejected as it failed to significantly reduce the deviance statistic (Δ -2LL=2.361, p<.120). Table 4.20 compares the models.

The results of the final model (Table 4.21) partially confirm hypothesis 4A. Males showed a 1.5 times greater likelihood of re-offense than females. Non-active Army spouses showed a 1.6 times greater likelihood of re-offense than Army soldiers in the rank of Private First Class or Specialist (E3 – E4). Offender ethnicity was not a significant predictor of re-offense. Hypotheses 4B and 4C were rejected based on the results of the

logistic regression analysis. Alcohol use and deployment load were not significant predictors of re-offense.

The interaction of time-period and incident substantiation could not be tested as the demographic information for many of the unsubstantiated cases was not recorded in the dataset. Because each incident has a unique incident identification number in the dataset, spouse abuse re-offense incidents are identified by locating incidents with matching abuser and/or victim demographics. When this information is not recorded, this makes it nearly impossible to identify cases of re-offense. The abuser's social security number was not entered in 43% (7,128 out of 16,456) of the unsubstantiated incidents compared with .43% (53 out of 12,309) of the substantiated incidents. Only 18 instances of re-offense were located out of the 16,456 unsubstantiated incidents from 2004, 2005, 2008, and 2009 compared with 1,688 out of 12,309 substantiated cases. Whether the implementation of the DTA affected the odds that an offender would reoffend if his or her initial allegation of spouse abuse were unsubstantiated could not be tested.

Table 4.19 HLM Mixed Model Equations for Hypothesis 4A, 4B, 4C

Null Model	$\eta_{ij} = \gamma_{00} + u_{0j}$
Model 2 Gender	$\eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + u_{0j}$
Model 3 Ethnicity	$ \eta_{ij} = \gamma_{00} + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(Black)_{ij} + \gamma_{30}^*(Hispanic)_{ij} + \gamma_{40}^*(Native American)_{ij} + \gamma_{50}^*(Asian)_{ij} + u_{0j} $
Model 4 <i>Rank</i>	$ \eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(E1_E2)_{ij} + \gamma_{30}*(E3_E4)_{ij} + \gamma_{40}*(E5_E6)_{ij} + \gamma_{50}*(E7_E8)_{ij} + \gamma_{60}*(E9_above)_{ij} + u_{0j} $
Model 5 Alcohol	$ \eta_{ij} = \gamma_{00} + \gamma_{10}*(Gender)_{ij} + \gamma_{20}*(E1_E2)_{ij} + \gamma_{30}*(E3_E4)_{ij} + \gamma_{40}*(E5_E6)_{ij} + \gamma_{50}*(E7_E8)_{ij} + \gamma_{60}*(E9_above)_{ij} + \gamma_{70}*(Alcohol)_{ij} + u_{0j} $
Model 6 Deployment	$ \eta_{ij} = \gamma_{00} + \gamma_{01}^*(Dep_Load)_j + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(E1_E2)_{ij} + \gamma_{30}^*(E3_E4)_{ij} + \gamma_{40}^*(E5_E6)_{ij} + \gamma_{50}^*(E7_E8)_{ij} + \gamma_{60}^*(E9_ABOVE)_{ij} + u_{0j} $
Final Model	$ \eta_{ij} = \gamma_{00} + \gamma_{10}^*(Gender)_{ij} + \gamma_{20}^*(E1_E2)_{ij} + \gamma_{30}^*(E3_E4)_{ij} + \gamma_{40}^*(E5_E6)_{ij} + \gamma_{50}^*(E7_E8)_{ij} + \gamma_{60}^*(E9_above)_{ij} + u_{0j} $

Note. Outcome is re-offense.

Table 4.20 Model Fit Comparison Table for Hypotheses 4A, 4B, 4C

Model	Parameters	-2LL	Δ-2LL	df	р
Null Model	2	15260.349	-	-	-
Model 2 <i>Gender</i>	3	15130.401	129.948	1	.001
Model 3 Ethnicity	7	15122.401	7.000	4	.090
Model 4 Rank	8	15111.669	18.732	1	.001
Model 5 Alcohol	9	15109.980	1.689	1	.191
Model 6 Deployment	9	15109.309	2.361	1	.120

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant. Model 3, 5 & 6 were rejected as they did not significantly improve model fit.

Table 4.21 Multi-Level Logistic Regression Results Predicting Re-Offense from Demographic Variables, Alcohol Use, and Deployment Load

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	Df	р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	1.714	.114	70	.001	5.552	4.424	6.968
Male vs. female	.455	.122	6069	.001	1.576	1.242	2.000
non-military vs. E1-E2	.511	.176	6069	.004	1.667	1.181	2.351
Non-military vs. E3-E4	.460	.122	6069	.001	1.585	1.248	2.012
Non-military vs. E5-E6	.340	.136	6069	.012	1.405	1.077	1.834
Non-military vs. E7-E8	.744	.280	6069	.008	2.104	1.217	3.639
Non-military vs. E9-Above	766	.788	6069	.331	.465	.099	2.178

Note. Level 1 includes (2008-2009) substantiated spouse abuse incidents (n = 6,087); Level 2 installations (n = 71)

4D: Command presence and command concurrence will be predictive factors of reoffense.

To test whether command presence and command concurrence were predictive factors of re-offense, two additional multilevel logistic regression analyses were conducted using two distinct datasets. The dataset used to test hypothesis 4A, 4B, and 4C contained 6,087 substantiated spouse abuse incidents determined in 2008-2009. In this dataset, command presence was recorded in only 24% of the incidents and

command concurrence was recorded in only .5%. Testing hypothesis 4D with an adequate sample size required the creation of two new datasets. These datasets were generated by filtering out all of the substantiated spouse abuse incidents containing an entry for command presence or command concurrence. The datasets were further scrutinized until they contained only cases with a successful or unsuccessful case closure reason as outlined in Table 3.1.

The dataset used to test command presence consisted of 5,279 substantiated spouse abuse incidents determined in calendar years 2006-2013 across 67 different Army installations. The dataset used to test command concurrence contained 587 unique substantiated spouse abuse incidents determined in calendar years 2006-2013 across 47 different Army installations.

To test whether command presence was a predictive factor of re-offense, a two-step binary logistic regression was used (Table 4.22). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The component for the intercept was not significant τ = .071, p <.032. This means that the dependent variable (re-offense) was not significantly affected by the grouping variable (installation). This hypothesis could also have been tested by performing a standard binary logistic regression.

In Step 2, command presence was entered into the regression as a predictor. The inclusion of command presence significantly improved model fit (Table 4.23). The results of the Step 2 model confirm the first half of hypothesis 4D. A spouse abuse offender whose commander was not present at the CRC had a 1.5 times greater likelihood of re-offense than an offender whose commander was present at the CRC (Table 4.24).

Table 4.22 HLM Mixed Model Equations for Hypothesis 4D: Command Presence

Null Model $\eta_{ij} = \gamma_{00} + u_{0j}$ Model 2 $\eta_{ij} = \gamma_{00} + \gamma_{10} * (Command Presence)_{ij} + u_{0j}$ Time Period

Note. Outcome variable is re-offense.

Table 4.23 Model Fit Comparison Table for Hypotheses 4D: Command Presence

Model	Parameters	-2LL	Δ-2LL	Р
Null Model	2	13307.683	-	-
Model 2	3	13288.348	19.335	.001

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.24 Multi-Level Logistic Regression Results Predicting Re-Offense from Command Presence

						95% Cor Interval for 0	
Predictor Variables	В	SE	df	p	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	-2.216	.075	66	.001	.109	.094	.127
Co. not present vs. Co. present	.403	.090	5211	.001	1.50	1.254	1.785

Note. Level 1 includes all of the (2006-2013) substantiated spouse abuse incidents (n = 5279) where command presence was recorded; Level 2 installations (n= 67).

To test whether command concurrence was a predictive factor of re-offense, a two-step binary logistic regression was used (Table 4.25). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The component for

the intercept was not significant τ = .207, p < .295. This means that the dependent variable (re-offense) was not significantly affected by the grouping variable (installation). This hypothesis could also have been tested using a standard binary logistic regression.

In Step 2, command concurrence was entered into the regression. The inclusion of command concurrence regression did not significantly improve model fit (Δ -2LL = 1.152, p < 283). The models are compared in Table 4.26. The second half of hypothesis 4D was rejected based on the results of the logistic regression analysis (Table 4.27). Command concurrence was not a significant predictor of re-offense.

Table 4.25 HLM Mixed Model Equations for Hypothesis 4D: Command Concurrence

Null Model	$\eta_{ij} = \gamma_{00} + u_{0j}$
Model 2 Time Period	$\eta_{ij} = \gamma_{00} + \gamma_{10}^* (Command Concurrence)_{ij} + u_{0j}$

Note. Outcome variable is re-offense.

Table 4.26 Model Fit Comparison Table for Hypotheses 4D: Command Concurrence

Model	Parameters	Parameters -2LL		
Null Model	2	1526.387	-	-
Model 2	3	1525.235	1.152	.283

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.27 Multilevel Logistic Regression Results Predicting Re-Offense from Command Concurrence

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	df	p	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	-1.827	.173	46	.001	.161	.114	.228
Non-concur vs. Concur	410	.387	539	.290	.664	.310	1.420

Note. Level 1 includes all of the (2006-2013) substantiated spouse abuse incidents (n = 587) where command concurrence was recorded; Level 2 installations (n= 47).

4.4.7 Hypothesis 5A

5A: Command presence and command concurrence will be predictive factors of incident closure reason.

The same datasets used to test hypothesis 4D were utilized to test hypothesis 5A. As previously mentioned, these datasets were generated by filtering out all of the substantiated spouse abuse incidents containing an entry for command presence or command concurrence. The datasets were further scrutinized until they contained only cases with a successful or unsuccessful case closure reason as outlined in Table 3.1.

To test whether command presence was a predictive factor of case closure reason, a two-step binary logistic regression was used (Table 4.28). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The component for the intercept was significant τ = .940, p < 001. This means that the dependent variable (case closure reason) was significantly affected by the grouping variable (installation) and that a multilevel statistical analysis was appropriate.

In Step 2, command presence was entered into the regression. The inclusion of command presence did not significantly improve the model fit (Δ -2LL = 2.091, p < .144). The models are compared in Table 4.29. The first half of hypothesis 5A was rejected based on the results of the multilevel logistic regression analysis (Table 4.30). Command presence was not a significant predictor of re-offense.

Table 4.28 HLM Mixed Model Equations for Hypothesis 5A: Command Presence

Null Model
$$\eta_{ij} = \gamma_{00} + u_{0j}$$

Model 2 $\eta_{ij} = \gamma_{00} + \gamma_{10} * (Command Presence)_{ij} + u_{0j}$

Time Period

Note. Outcome variable is Incident Closure Reason.

Table 4.29 Model Fit Comparison Table for Hypotheses 5A: Command Presence

Model	Parameters	Parameters -2LL		
Null Model	2	16094.238	-	-
Model 2	3	16092.148	2.091	.144

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.30 Multi-Level Logistic Regression Results Predicting Incident Closure Reason from Command Presence

95% Confidence Interval for Odds Ratio

Predictor Variables	В	SE	df	р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	.594	.142	66	.001	1.811	1.363	2.405
Co. Present vs. not present	.078	.063	5211	.213	1.082	.956	1.224

Note. Level 1 includes all of the (2006-2013) substantiated spouse abuse incidents (n = 5279) where command presence was recorded; Level 2 installations (n= 67). Successful Case closure reason is coded as 0; unsuccessful case closure is coded as 1. Results are from the HLM Population-Average Model.

To test whether command concurrence was a predictive factor of case closure reason, a two-step multilevel binary logistic regression was used (Table 4.31). In the first step, a null or baseline model was generated with no predictors at level 1 or level 2. The component for the intercept was τ = 1.505 p < 001. This means that the dependent variable (case closure reason) was significantly affected by the grouping variable (installation) and that a multilevel statistical analysis was appropriate.

In Step 2, concurrence was entered into the regression. The inclusion of command concurrence significantly improved the model fit (Δ -2LL = 38.987, p < .001). The models are compared in Table 4.32. The second half of hypothesis 5A was confirmed based on the results of the multilevel logistic regression analysis (Table 4.33). When commanders did not concur with the treatment plan, offenders showed a 4.5 times greater likelihood of an unsuccessful treatment outcome than offenders whose commander concurred with the treatment plan.

Table 4.31 HLM Mixed Model Equations for Hypothesis 5A: Command Concurrence

Null Model $\eta_{ij} = \gamma_{00} + u_{0j}$ Model 2 $\eta_{ij} = \gamma_{00} + \gamma_{10} * (Command Concurrence)_{ij} + u_{0j}$ Time Period

Note. Outcome variable is re-offense.

Table 4.32 Model Fit Comparison Table for Hypotheses 5A: Command Concurrence

Model	Parameters	-2LL	Δ-2LL	Р
Null Model	2	1733.811	-	-
Model 2	3	1694.824	38.987	.001

Note. A *p* value of .001 indicates that the change in -2LL value from one model to the next is significant.

Table 4.33 Multi-Level Logistic Regression Results Predicting Case Closure Reason from Command Concurrence

						95% Confidence Interval for Odds Ratio	
Predictor Variables	В	SE	df	р	Odds Ratio	Lower	Upper
Intercept, β_0 Intercept, Y_{00}	205	.248	46	.414	.815	.494	1.343
Non-concur vs. Concur	1.524	.294	539	.001	4.589	2.577	8.173

Note. Level 1 includes all of the (2006-2013) substantiated spouse abuse incidents (n = 587) where command concurrence was recorded; Level 2 installations (n= 47). Successful Case closure reason was coded as 0; unsuccessful case closure was coded as 1. Results are from the HLM Population-Average Model.

Chapter 5

Discussion, Implications, Conclusion

5.1 Discussion of Findings

This study assessed the deterrent effects of reliable structured decision-making protocols on spouse abuse perpetration and re-offense in the U.S. Army. The study also sought to identify offender characteristics and ecological factors that increase or decrease the odds of incident substantiation and re-offense.

5.1.1 Impact of the Decision Tree Algorithm

Incident substantiation

The analyses of Army Central Registry data before and after the implementation of the DTA revealed that the rate of incident substantiation dropped by 8 points from 47% to 39%. This was a significant drop. This finding supports previous research by Snarr et al. (2011) who tested the impact of structured decision-making protocols on spouse abuse perpetration rates in the U.S. Air Force. In their study, the incident substantiation rate dropped 9 points from 63% to 54% following the implementation of a nearly identical structured decision making protocol.

Why did the rate of incident substantiated decrease under the new system? The decrease is most likely because the DTA required case review committees to follow a more rigorous step-by-step decision-making protocol. In order to substantiate an allegation of abuse using the DTA, the preponderance of the evidence must indicate that actual harm (or the substantial potential for harm) was inflicted upon the victim.

Committee members using the DTA were also obligated to apply the same valid and reliable abuse definitions developed by Heyman and Slep (2006) to each alleged incident of abuse. Relatively minor incidents that would have been substantiated under the old system simply could not be substantiated under the new system.

Is it possible that a lower incident substantiation rate could produce a greater deterrent effect than a higher substantiation rate? It seems counterintuitive as the chief trend in crime reduction policies since the 1980s has been incapacitation, a strategy that emphasizes the use of formal sanctions, especially incarceration to interrupt or deter offenders from committing further crimes (Marvell and Moody, 1994; Zimring and Hawkins, 1995; Blumstein, 1983; Visher, 1987).

According to deterrence theory, increasing the severity of sanctions and the certainty of their imposition discourages criminal behavior by augmenting its perceived or threatened costs (Pate and Hamilton, 1992). It is likely that case review committees using the DTA have smaller caseloads (of substantiated cases) and are more confident about the accuracy of their decisions. Even though the CRC substantiation rates are lower under the new system, the certainty that CRC members and unit commanders will impose the informal sanctions (treatment recommendations) is higher.

A lower substantiation may also be helpful for therapists assigned to work with offenders. Case review committees using the new system probably did a better job triaging the cases so that the offenders who were mandated to treatment, were the ones that needed it the most. This may not have been true under the old system.

It should be noted that due to limitations of the ACR dataset, these explanations could not be directly investigated in the present study. Determining the accuracy and the amount of variance reduction associated with each of these proposed mechanisms of effect, await further research.

Re-offense

The analyses of Army Central Registry data before and after the implementation of the DTA revealed that the rate of re-offense dropped significantly from 8% to 4% (among offenders whose initial case was also substantiated). This finding supports

previous research by Snarr et al. In their study, the rate of re-offense among offenders in the Air Force community whose initial case was also substantiated, was cut in half from 14% to 7%.

Why did the rate of spouse abuse re-offense drop under the new system? If the DTA increased case review committee reliability and the clients mandated to treatment were the most highly abusive individuals, the rate of re-offense should have increased, not decreased. The drop in the re-offense rate under the new system is most likely attributable to the following three factors: 1) Increased ability of case review committees to make accurate and reliable decisions and to impose informal sanctions (e.g. treatment recommendations), 2) Commanders' willingness to enforce compliance with the informal sanctions due to the perceived fairness of the system, and 3) The enhanced ability of treatment providers to focus their energy and attention on the most abusive individuals.

Once again, it must be noted that due to limitations of the ACR dataset, these explanations could not be directly investigated in the present study. Determining the accuracy and the amount of variance reduction associated with each of these proposed mechanisms of effect, await further research.

5.1.2 Primary Risk Factors for Incident Substantiation

Non-military offender

A spouse abuse incident was about 1.5 to 2 times more likely to be substantiated if the alleged offender was a civilian spouse as opposed to an active-duty military spouse. To understand why being a civilian spouse was a risk factor for incident substantiation, the subpopulation of civilian spouse abuse offenders was extracted from the dataset used to test hypothesis 3A, 3B, and 3C, and further scrutinized. Of the 15,341 incidents in the dataset, 33% involved civilian offenders (n=5069). The remainder of the offenders were active duty soldiers.

The substantiation rate for male civilian spouses (60%) in this subpopulation was about 23 points higher than the substantiation rate for females. The active duty female victims of the civilian offenders were far more likely to be the victims of substantiated abuse than their male counterparts, 58.9% to 37% respectively. In accordance with previous findings by McCarroll, Ursano, Fan, and Newby (2004), the present study suggests that non-military status is an especially salient risk factor for spouse abuse in military couples when the alleged offender is a civilian male and the victim is a female Army soldier.

Previous studies by Cantos, Neidig, and O'Leary (1994); Rosen, Kaminski, Parmley, Knudson, and Fancher (2003); Sullivan (2009) and Wasileski, Callaghan-Chaffee, and Chaffee (1982) found that IPV perpetration is more frequent among enlisted, low-ranking military servicemen than among officers.

Civilian military spouses experience high rates of unemployment because of inadequate employment opportunities in and around many military bases, especially overseas bases (Morrison et al.; Segal, 1986; Vercruysse & Chandler, 1992). An inspection of the odds ratios from Table 4.18 shows that the pay grade of civilian spouses could be conceived as the "lowest of the low." Figure 5.1 demonstrates how civilian spouses were at greater risk for incident substantiation than soldiers in any of the military pay grades.

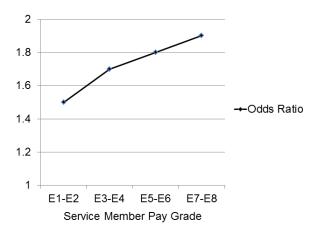


Figure 5-1

Civilian Spouse Odds of Incident Substantiation

Relative to Service Member Pay Grade

Male Gender

The problem of intimate partner violence in the Army has long been perceived as a problem caused by males that disproportionately and negatively affects women. An incident was about 1.7 times more likely to be substantiated if the offender was male. In this study, 7 out of 10 victims were female. This proportion of female to male victims is remarkably consistent and can be found in virtually every study analyzing Army Central Registry dating back to 1975 (e.g. McCarroll et al., 1997; McCarroll et al. 1998, McCarroll et al., 2004).

Active duty military families are eligible for many generous benefits including medical insurance, housing or a subsidy for housing, and access to on post facilities such as subsidized grocery stores and fitness centers, and recreational facilities. Virtually all of the benefits available to military family members are channeled through and arranged by the active duty service member in the family. One of the unintended consequences of this arrangement is that it facilities a power imbalance between the active duty military

member and the civilian spouse. When the civilian spouse is unemployed and isolated from extended family, this creates an even greater potential for abuse. Male gender as a risk factor for incident substantiation is consistent with both Feminist Theory and Cultural Dimensions Theory. The organizational structure and culture of the military may facilitate the of use tactics such as isolation and intimidation by males to control women.

Alcohol

An incident was 1.5 times more likely to be substantiated if the offender was drinking alcohol prior to or during the spouse abuse incident. To ascertain whether there were any cultural or regional variations in the patterns of alcohol, the dataset used to test hypothesis 3A, 3B, and 3C was further scrutinized. Among the 53 installations with 30 or more records for alcohol involvement, the rate of positive alcohol involvement was 22%. This finding is consistent with previous research by Brewster, Milner, Mollerstrom, Saha, and Harris (2002) and McCarroll et al. (1999) who found that approximately 20% of family violence incidents in the military were preceded by alcohol consumption.

In the present study, 12 out of 15 of the installations with the highest rates of positive alcohol involvement ranging from 27% to 40% were located outside the continental United States (nine in Europe, two in South Korea, and 1 in Alaska). The high prevalence of alcohol related spouse abuse incidents in Germany and South Korea supports Brofenbrenner's Bio-ecological theory and suggests that there may be macro level elements of host nation culture and laws that interact with and influence micro and individual level variables such as offender alcohol use.

Both Germany and South Korea have higher levels of alcohol consumption than the United States, about 11.8 liters per capita per year among adults (World Health Organization, 2011). The minimum drinking age in both countries is also lower. When these host nation factors collide with a U.S. military culture that increasingly embraces

binge drinking, the result is a public health crisis. A recent Institute of Medicine report found that binge drinking in the military increased from 35% in 1998 to 47% in 2008 ("Substance Use Disorders," 2013). The apparent clustering of alcohol-related incidents overseas highlights the need to use multilevel modeling approaches when conducting research on groupings of individuals under higher entities.

Ethnicity

The odds that a Black or Hispanic offender's alleged incident of spouse abuse would be substantiated were about 1.2 times the odds of a White offender's case. Given that many of the traditional risk factors for spouse abuse (e.g. poverty, unemployment, access to medical care / mental health care, adequate housing) are not present in active duty military families, the disparity in substantiation rates between Whites and minority Soldiers may best be explained by intergenerational transmission of violence theory. This theory suggests that an adult who witnessed and experienced violence as a child is more likely to use violence (in the context of an intimate partner relationship) than an adult who was not exposed to violence as a child (Straus, 1991; Widom, 1989).

Markowitz (2001) tested the hypothesis that a person's attitude about violence (a trait shaped via childhood exposure to parental violence) explains the correlation between childhood and adult violence. Findings from Markowitz's study suggest that "children who are subject to violence come to engage in violence in their later marital relationships because they acquire certain attitudes which facilitate violence" (p. 215). The results also indicated that that non-whites in the study were more approving of violence toward their spouses.

In the present study, childhood exposure to violence and offender attitudes about the use of violence in intimate partner relationships could not be assessed. Future studies should test this relationship using military populations, and explore the use of

interventions designed to change offenders' attitudes about violence. Previous research suggests that the cultural attitudes of African American batterers are associated with their willingness to engage in counseling (Gondolf and Williams, 2001).

5.1.3 Primary Risk Factors for Re-offense

Non-military offender

Consistent with previous findings by McCarroll et al. (2000) civilian spouses in the present study were about 1.6 times more likely to re-offend than junior enlisted active duty spouses. This finding is also consistent with deterrence theory, which asserts that human behavior is rational and is influenced by incentives, especially the negative incentives that characterize formal sanctions. Why are civilian spouses, especially male civilian spouses more likely to re-offend than active duty spouses? According to deterrence theory, the severity of sanctions and the certainty of their imposition is believed to discourage criminal behavior by augmenting its perceived or threatened costs. Although case review committees have the authority to substantiate allegations of abuse against civilian spouses, enter their name in the Army Central Registry, and make treatment recommendations, civilian spouse participation in the family advocacy program is voluntary. On the opposite side of the spectrum, junior enlisted soldiers in the rank of Private First Class and Specialist are the most supervised individuals in the Army. Junior enlisted soldiers may have five or more supervisors in their chain of command in addition to the company commander monitoring their compliance with FAP treatment recommendations.

Male Gender

In the present study, male offenders were about 1.6 times more likely to re-offend than females. This finding is consistent with the findings of previous research by McCarroll et al., 2000. Male offenders with one or more substantiated incidents of re-

offense were filtered-out from the dataset used to test hypothesis 4A, 4B, and 4C, so this subpopulation could be further scrutinized. Of the 609 offenders with one or more cases of re-offense in the dataset, 453 were males (74%). The majority of the male reoffenders were active duty soldiers (n=370, 82%). The remainder were male civilian spouses (n=83, 18%). About half (n=183) of the active duty male offenders were junior enlisted soldiers in the rank of Private First Class or Specialist. About one-third of the active duty offenders (n=123) were enlisted soldiers in the rank of sergeant of staff sergeant.

The intersection of male gender and lower rank is one of the most persistent and well-documented risk factors for spouse abuse perpetration and re-offense in the literature (e.g. Cantos, Neidig, and O'Leary, 1994; Rosen, Kaminski, Parmley, Knudson, and Fancher, 2003; Sullivan, 2009; and Wasileski, Callaghan-Chaffee, and Chaffee, 1982). Why was this closely supervised sub-population of low-ranking, active duty offenders not deterred by the negative incentives associated with the informal and formal sanctions? Cavanaugh and Gelles (1995) conducted a review of the literature on batterer typologies and found that researchers are consistently able to separate batterers into three main types: low, moderate, and high-risk offenders. There was also agreement among researchers that further subtypes of offenders exist (e.g. Type I Cobra, Antisocial, Intimate Terrorist) and can be reliably identified by assessing factors such as the severity and frequency of violence, criminal history, and level of psychopathology (Cavanaugh and Gelles, 1995.)

The existence of a small, recalcitrant sub-population of spouse abuse offenders (e.g. Type I Cobra, Antisocial, Intimate Terrorist) that may not benefit from traditional interventions, and are undeterred by negative sanctions, supports the need to utilize a broad-based theoretical framework for future research and policy development. It also calls attention to the need for FAP clinicians to accurately and reliably assess offenders,

and match them to the specific types of treatment that will address their needs and be the most effective.

5.1.4 Command Presence

Offenders were about 1.6 times more likely to re-offend if their commander was not present at the case review committee. This finding supports one of the primary tenets of the Family Advocacy Program: the notion that FAP should be a command-driven program and that leaders (especially company commanders) influence case outcomes. This principal is so important that it was integrated into the Family Advocacy Program standards for accreditation in 2008. Standard 50000.8 of the of the FAP accreditation checklist (DA Form 7419-1) specifies that FAP documentation must reflect that the attendance rate for unit commanders at case review committee meetings was 80% or higher ("Army Pamphlet 608-17," 2008). Given this metric, it is unclear why command presence was only documented in 44% of the 50,296 spouse abuse incidents determined between 2008 and 2013.

This study marks the first effort to systematically assess the impact of command presence on Army spouse abuse case outcomes. Although preliminary, the results are consistent with previous findings by Rosen et al. (2003) and suggest that commanders may have a mitigating effect on re-offense when they actively participate in the case review committee decision-making process.

5.1.5 Command Concurrence

Offenders were about 4.5 times more likely to have an unsuccessful treatment outcome if their commander did not concur with the treatment plan. Standard 50000.8 of the of the FAP accreditation checklist (DA Form 7419-1) specifies that command concurrence with the treatment plan must be documented in at least 80% of the substantiated cases for ("Army Pamphlet 608-17," 2008). It unclear why command

concurrence was only recorded in only 5.6% 50,296 incidents determined between 2008-2013.

This study marks the first attempt to systematically assess the impact of command concurrence on Army spouse abuse case outcomes. Although the results are preliminary, the results suggest that commanders may have a negative effect on positive case outcomes when they do not concur with the case review committee treatment plan.

5.1.6 Deployment Load

It was hypothesized that there are unique characteristics associated with each Army installation (e.g. size, location, mission, culture) that would impact the dependent variables in this study. The results confirmed this hypothesis. The level two grouping variable, Army installation, had a significant effect on the dependent variable in all but two of the multi-level statistical analyses.

One of the installation level characteristics hypothesized to play an important role in spouse abuse perpetration and re-offense was deployment load. Consistent with previous findings by McCarroll et al. (2003) and Newby et al. (2005), multiple attempts to identify an association between an installation's deployment load and an offender's risk for spouse abuse were unsuccessful in this study.

This finding was also consistent with recent research assessing the effects of deployment on another social problem in the military, service-member suicide.

LeardMann et al. (2013) evaluated risk factors associated with suicide in a sample of current and former U.S. military from 2001-2008. The results indicated that suicide risk was independently associated with male gender and mental disorders but not with military deployments.

5.2 Implications for Social Work

5.2.1 Theory

In the present study, IPV was conceived as the product of a complex interplay of many factors (e.g. biological; childhood experiences; sociohistorical; the impact of family, societal, and organizational cultures; and other influences such as alcohol or command climate) that serve to encourage or deter behaviors. There is not a simple formula for determining why a person commits an act of IPV. This is why the results of the analyses were interpreted using a robust framework that integrated Cognitive Behavioral, Social Learning, Cultural Dimensions, Feminist, Deterrence, and Biological theories all under the umbrella of a grand theory, Bioecological Systems Theory. These theoretical groundings also shaped the development of the original conceptual model for the study (section 2.7).

The findings of the present study support some of the hypothesized relationships between the predictive factors and outcome variables (incident substantiation and reoffense). The DTA was proposed to have an effect on both spouse abuse incident substantiation and re-offense. These relationships were confirmed. Gender, ethnicity, rank, and alcohol use were all predictive factors of incident substantiation. Gender, rank, and command presence were predictive factors of re-offense. Deployment load was removed from the conceptual model, as it was not significantly associated with either outcome variable. Because the level two grouping variable, Army installation, had a significant effect on both incident substantiation and re-offense, it was included in the final conceptual model. A revised conceptual model was developed to help illustrate these relationships (Figure 5.2).

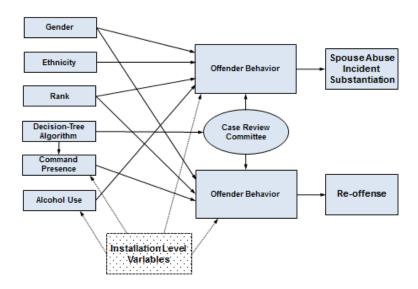


Figure 5-2 Revised Conceptual Model

5.2.2 Research

The results of this study support the general principals of deterrence theory. The informal and formal sanctions were not directly assessed. Thus, the hypothesized mechanisms of action remain speculative. Future studies should attempt to identify and test these factors. A recommended avenue of approach for this research would be to compare two random samples of hard (paper) copy FAP substantiated case files from before and after the implementation of the DTA. Because the hard copies of FAP case files are subject to inspection as part of the accreditation process, the amount of missing data per case is likely to be much lower than in records stored in the Army Central Registry. Informal sanctions such as the specific type of treatment, treatment dose / duration, and compliance with the treatment plan could all be assessed. Formal sanctions including no-contact orders, protective orders, removal from the residence, non-judicial and UCMJ punishments by commanders, and civilian court requirements could also be scrutinized. Individual characteristic such as education level, military occupational

specialty, childhood exposure to violence, substance abuse history, previous marriages, and mental disorders could be utilized as control variables.

A recommended course of action that would significantly facilitate future researchers' ability to identify and test individual and installation level predictors of spouse abuse perpetration and re-offense, would be to make minor modifications to the Army Central Registry. A mixed-methods cross-sectional study with the goal of understanding what ACR users want, need and expect from the database could be a starting point for this research. In concert with FAP personnel, researchers should investigate the potential benefits of replacing string variables in the ACR such as the low, moderate, and high categories for incident severity with numeric values from a standardized and validated actuarial risk assessment tool such as the Ontario Domestic Assault Risk Assessment (ODARA) (Hilton et al. 2004).

In the present study, it was difficult to make meaningful distinctions between the current case closure reasons and some of the categories appeared to overlap. Research should therefore also focus on testing the potential benefits of replacing the numerous categorical case closure reasons with a salient scale with standardized definitions for varying degrees of treatment success or failure. One option for investigation would be a 7 or 8-point Likert-type scale with "zero" as an option for highly unique circumstances, three scale points for unsuccessful treatment outcomes (1=worst), a neutral outcome, "4," and three scale points for successful treatment outcomes (7=best). A seven or greater-point scale may lend itself to analysis as a continuous measure under certain conditions (Glass et al., 1972; Lubke & Muthen, 2004), allowing its use in investigations using advanced statistical techniques to permit nesting of installation as a variable. An example of such a scale could include the following scale points:

- 0 = Not applicable; Highly unique circumstances that cannot be adequately addressed by the Likert scale.
- 1 = Victim (with an open FAP treatment case) died as a result of IPV related injuries.
- 2 = Active duty offender refused to participate in treatment, participated minimally, or was a treatment failure and risk of harm was not significantly reduced.
- 3 = Family member offender refused to participate in treatment, participated minimally, or was a treatment failure and risk of harm was not significantly reduced.
- 4 = Transfer out, offender and / or victim were no longer eligible for treatment, family member was not available for treatment due to geographic separation, or the couple permanently separated or divorced.
- 5 = Either the offender or the victim partially completed treatment mitigating the risk of harm.
- 6 = Either the offender or the victim fully completed treatment mitigating the risk of harm.
- 7 = Both the offender and the victim fully completed treatment mitigating the risk of harm.

It is unknown whether the decidedly gender-neutral approach of DTA may have prevented CRC members from being able to successfully incorporate the subtle nuances often present in male-female partner abusive relationships such as power, control, isolation, access to resources and intimidation into their decision-making processes. This is a serious concern, as about 70% of the victims of IPV in the Army community are females. Although the results of this study suggest that there may be certain benefits to using structured decision-making protocols to make incident determinations, it is important to be watchful for unintended consequences.

One potential limitation to the DTA is that in order to substantiate an allegation of emotional abuse, the preponderance of the evidence must indicate that actual harm was inflicted upon the victim. Psychological harm, fear reactions, and stress related somatic symptoms cannot be reliably or accurately measured. Many stress reactions may have a delayed onset. The preset study did not evaluate emotional abuse incidents and physical abuse incidents as separate outcomes. Future studies should compare the rates of substantiated emotional abuse cases before and after the implementation of the DTA to evaluate its ability to address the complex circumstances present in emotional abuse cases. Researchers should also evaluate whether any modifications to the DTA are necessary when it is used to make determinations for incidents regarding same sex couples.

5.2.3 Policy

The results of the current study and previous findings by Heyman and Slep (2006) and Snarr et al. (2011) suggest that using standardized, reliable maltreatment definitions in conjunction with structured decision-making protocols, increased the deterrent effects of the formal and informal sanctions imposed by the decision-makers. The deterrent effects increased even though the substantiation rate decreased. This finding may have policy implications for another social problem afflicting the military, sexual assault.

The Department of Defense is currently under pressure from the Senate Armed Services Committee to reverse the rising rates of sexual assault in the military (Shanker, 2013). One legislative proposal currently under consideration is to remove commanders from overseeing sexual assault cases and place them under the jurisdiction of an independent military legal authority. In the present study, command participation was significantly associated with spouse abuse re-offense and case outcomes.

Prior to embarking on such a change, policy analysts should scrutinize the current military definitions of sexual misconduct and the decision-making protocols used by the military judicial system and ask the following questions: Is there any research assessing the association of command participation and sexual assault case outcomes? Do the current definitions of sexual assault in the Uniform Code of Military Justice reflect the best civilian and military operationalizations and conceptualizations of each type of sexual misconduct? Would a specialized sexual assault court system using research based definitions be more accurate and reliable, and increase perceptions of procedural justice?

Legal scholars have proposed that existing sexual assault laws perpetuate victim culpability attributions because they do not accurately or reliably define sexual victimization as a crime (Bohmer, 1998; Bublick,1999; Remick, 1993; Taslitz, 1999).

Miller et al. (2012) tested this assertion by exposing participants to a sexual assault legal context that ineffectively expressed sexual assault is a crime, or to a sexual assault legal context that clearly expressed that sexual assault is a crime. The results of Miller et al.'s study confirmed the legal scholars' proposition. Victims were attributed greater culpability in the context of unclear and ineffective sexual assault laws.

Military leaders and policy analysts are often wedded to certain models or practices based on tradition, ideological preference, or funding issues. It appears that the FAP may have benefitted from taking the time to redefine partner abuse using evidence-based definitions, and modernizing its incident determination process. It is reasonable to assert that a similar approach might be a good starting point for policy changes designed to reduce the high sexual assault rates in the military.

The current study may also have implications for civilian child protective service agencies. The definitions of child abuse and neglect vary from state to state given that

each state has its own statutes. There is not a standardized decision-making process for determining who is and who is not a child-abuser. Although it would not be feasible for states to adopt a full-scale family advocacy program with a nine-member case review committee, it certainly may be beneficial for state-level lawmakers to examine the current definitions of child abuse and neglect in their state statutes. The accuracy and fairness of their decision-making process could also be evaluated and improved.

Though the present study focused solely on the effects of structured decision-making protocols on spouse abuse perpetration and re-offense in the Army, case review committees have been using the DTA to make determinations regarding child abuse and neglect incidents since 2008. The impact of the DTA on child abuse and neglect in the Army community has not been assessed.

Snarr et al. (2011) studied the impact of structured decision-making protocols (nearly identical to the DTA) on child abuse and neglect in the Air Force community. In their study, the likelihood of incident substantiation and re-offense were lower under the new system than under the old system. While preliminary, these findings suggest a promising avenue of approach for researchers in the field of child protection.

5.2.4 Practice

One finding from the present study worthy of attention from FAP personnel is the potential impact of command participation on re-offense and case outcomes. For spouse abuse incidents that are likely to be substantiated, the importance of a commander's presence in the case review committee, and assurance that he or she concurs with the treatment plan, cannot be underestimated. Commanders have many conflicting priorities and a limited amount of time to engage and provide leadership to programs such as FAP. Social work clinic chiefs should make reasonable CRC scheduling accommodations (for commanders) that may include participation by video teleconference, Skype or

conference call. In rare instances when commanders do not support the treatment plan, social work chiefs should take the time and effort to resolve potential disagreements with commanders prior to the case review committee. Having a commander "on board" for an imperfect treatment plan is preferable to having the "perfect treatment plan" with no one willing or able to enforce compliance.

This study also calls attention to the need for FAP personnel in the Army to be aware that male civilian spouses may be at a higher risk for engaging in abusive behavior and for being a repeat offender. During the risk assessment phase of treatment, clinical social workers should be especially diligent when developing safety plans for female active duty victims married to male civilians. Options such as temporarily sheltering the victim, obtaining a civilian restraining order, or barring the offender from entering the military installation, should not immediately be ruled out as too extreme.

Unfortunately, the classification of active-duty females as an at-risk population for IPV does not end when they leave the military and resume their lives as civilians. Hence, the results of this study are also instructive to social workers employed by the Veterans Health Administration (VHA) and for social workers in other behavioral health settings utilized by veterans. Other than the VHA, where do female veterans receive healthcare? Many seek services from university medical clinics and counseling centers. About four percent of university undergraduates nationwide are students with military-related background. The grand majority of military related students on college campuses are prior service military veterans (individuals who have served at least three years on active duty). Approximately twenty-six percent of all veterans on university campuses are female (Radford, 2009).

Research suggests that it is common for female veterans seeking care at VHA facilities to be actively involved as victims in partner abusive relationships (Campbell,

Greeson, Bybee, and Raja, 2008; Caralis and Musialowski, 1995). At a large Midwestern VHA facility, 24% of female veterans under age 50 reported being the victim of IPV within the past year (Murdoch and Nichol, 1997).

When conducting initial interviews with female veterans, clinical social workers and other professionals should always incorporate an IPV screening as part of the intake process. As part of the IPV screening, clinicians should also ask female veterans if they received treatment from a family advocacy program while they were on active duty. Family advocacy records are unlikely to be accessible to VHA personnel or other clinicians in other healthcare setting via electronic medical record systems, but paper copies of the records can be requested with a signed release of information. In addition to providing important contextual information that may be relevant during the assessment phase of treatment, obtaining prior treatment records is a key element of healthcare delivery associated with patient satisfaction, "continuity of care" (Fan, Burman, McDonell, and Fihn, 2005).

One caveat to the preceding implication for practice is that the findings of this study have yet to be applied to other research settings, such the VHA and university counseling centers. At a minimum, the knowledge garnered from this study will serve as a starting point for social workers developing and testing IPV practice standards and competencies for specific health care settings.

Finally, perhaps the most important implication of this study for social work practice is that it evaluated the only evidenced-based decision-making protocol available to practitioners for determining whether an intimate partner has engaged in partner abuse. To some, this might appear to be an area reserved for the field of criminal justice. However, the emergence of problem solving courts (PSC), such as domestic violence courts, has resulted in an increasing presence of social workers in forensic settings

(Roberts and Brownell, 1999). Additionally, more than a dozen schools of social work now have interdisciplinary programs with law schools.

The PSC model of justice is increasingly dependent upon community-based organizations such as batterer intervention programs and domestic violence shelters to devise strategies for achieving therapeutic goals (Castellano, 2011). To be relevant, social workers need to be at the forefront of the development of evidence-based sentencing alternatives for persons with chronic problems that will make them less prone to relapse and re-offense. With the exception of specialized drug courts, there are no standardized guidelines for defining how PSCs should operate (Castellano, 2011).

Opportunity is knocking at the door of the social work profession. As a first step, social work practitioners, in collaboration with PSC court personnel, must seize the opportunity and begin developing their own standardized maltreatment definitions and decision-making protocols for PSCs specializing in intimate partner violence.

5.3 Study Limitations

Although efforts were made to construct a perfect study, this secondary analysis of Army Central Registry data has several limitations. The ACR is an administrative database that was not originally designed for research purposes. Missing data (such as demographic data for low risk unsubstantiated incidents) in the ACR is most likely not "missing at random" but is instead missing because administrators or clinicians did not feel it was important to enter the data in the system.

The spouse abuse incidents contained in the ACR and analyzed in this study do not necessarily reflect the actual number of spouse abuse incidents that occur in the Army each year. Intimate partner violence is a social problem that typically occurs in private settings and is underreported. Although victims have the option of filing a restricted or confidential report of spouse abuse in the military, victims may be dissuaded

from reporting such abuse due to concerns that it could have negative financial repercussions for the family.

There are individual offender characteristics that were not evaluated in this study such as genetics, biological makeup, traumatic brain injury, childhood exposure to violence, and mental illness, that may be predictors of spouse abuse perpetration and reoffense. There also may have also been installation level variables such as new IPV guidelines for military police, new prevention and response campaigns, or other services that were launched at the same time as the DTA. It is possible that these programs contributed to the changes in spouse abuse perpetration and re-offense rates observed in the study.

One example of an initiative that was implemented during the same period as the present study is the Modern Army Combatives Program (MACP), adopted by the U.S. Army for widespread use in 2000. Combatives training includes many fighting techniques such as punches and kicks, throws and sweeps, choking and counter-choking methods, and joint manipulation (the twisting, bending, or pulling of specific joints, usually wrist, elbow, shoulder or ankle, in order to cause pain or subdue one's opponent) (Blanton, 2008). All soldiers, regardless of rank, gender, or occupational specialty have received some hands-on combatives training instruction in small group format. Anecdotal evidence from Army medical department case reviewers suggests that one indirect consequence of the MACP is that military couples are engaging in more severe forms of physical partner abuse, especially choke holds that result in a loss of consciousness (Dr. C. Gable, personal communication, October 11, 2013).

Finally, given the unique characteristics of the Army population utilized for this study and the highly structured nature of the Family Advocacy Program, the generalizability of the results are limited. It is impossible to know whether a similar

structured decision making protocol would work with a civilian population of offenders with court oversight.

5.4 Conclusion

The research literature is replete with studies on intimate partner violence from the fields of criminal justice, social work, psychology, and sociology. This fact notwithstanding, the present study fills an important gap in the literature. First, it is the only study to use a multi-level approach to evaluate the deterrent effects of reliable structured decision-making protocols on spouse abuse perpetration and re-offense in the Army. Second, it expands the boundaries of existing military social work knowledge, by assessing the effects of command presence on re-offense, and command concurrence on case closure reason. Finally, this analysis was the first to evaluate the effects of a key organization level variable, installation deployment load, upon spouse abuse perpetration and re-offense rates in the Army.

The operationalization, assessment, and treatment of domestic violence offenders and victims is an arena where researchers, practitioners and policymakers may be guilty of "putting the cart before the horse." In their editorial, Danis and Lockhart (2003) asked, "Where are practice standards for domestic violence intervention?" Heyman and Slep (2006) took another step back, deciding that prior to developing practice standards, researchers should first develop a set of evidence-based definitions for partner abuse. They also developed a structured decision-making protocol designed to be used by laypersons to make more reliable and accurate determinations about who is and who is not a domestic violence offender. Snarr et al. (2011) and the present study have begun the process of evaluating the manualized structured decision-making protocols. Thus far, the results look promising. However, there is still much work to be done.

Operationalized abuse definitions and structured decision making protocols are only the first step in the process. They do not provide answers to some of the most basic questions about domestic violence intervention. Is one model or intervention approach more effective than another? What are the essential components of batterer intervention programs (protocol, instructor proficiency, group setting) that lead to their success or failure? What is the correct treatment dose? Do different types of abusers need different types of treatments?

The task may seem daunting. Given the high likelihood that there are deterrent effects associated with the use of structured decision-making protocols on spouse abuse perpetration and re-offense in the military, it is reasonable to hypothesize that going one step further and using an evidenced-based protocol to systemically diagnose and treat offenders would produce further gains.

Appendix A

Decision Tree Algorithm Criteria for Adult Intimate Partner

Physical Abuse

Adult (Intimate Partner) Physical Abuse

A. The non-accidental use of physical force.

Physical force includes, but is not limited to, pushing; shoving; slapping; grabbing; poking; hair-pulling; scratching; pinching; restraining; shaking; throwing; biting; kicking; hitting with fist; hitting with a stick, strap, or other object; scalding; burning; poisoning; stabbing; applying force to throat; cutting off air supply; holding under water; using a weapon.

AND

- B. Significant impact on the intimate partner involving ANY of the following:
 - 1. Any physical injury (including, but not limited to, pain that lasts at least four hours, bruises, cuts, sprains, broken bones, loss of consciousness).
 - 2. Reasonable potential for more than inconsequential physical injury given the degree of force used and the physical environment in which acts occurred.
 - 3. More than inconsequential fear reaction.

Exclusions

- 1. Acts committed during physical play including, but not limited to, horseplay, wrestling, tackle football.
- 2. Acts committed to Protect Self from Imminent Physical Harm I: Intimate Partner in the Act of Physical Force. All three of the following criteria are required:
 - a. Act occurred while intimate partner was in the act of using physical force. "In the act" begins with the initiation of motoric behavior that typically would result in an act of physical force (for example, charging at the intimate partner to hit him/her) and ends when the use of force is no longer imminent.
 - b. Sole function of act was to stop intimate partner's use of physical force.
 - c. Act used minimally sufficient force to stop intimate partner's use of physical force.
- 3. Acts committed to Protect Self from Imminent Physical Harm II: Threat + History of More than Inconsequential Physical Injury. Both of the following criteria are required:
 - a. Act followed intimate partner's threat (verbal or nonverbal) to imminently inflict more than inconsequential physical injury.
 - b. At least one previous incident of intimate partner inflicting more than inconsequential physical injury.
- 4. Acts committed to protect intimate partner or child from imminent physical harm (including, but not limited to, pushing intimate partner out of the way of a car, taking weapon away from suicidal intimate partner, stopping intimate partner from inflicting injury on child). Note: subsequent actions that were not directly protective (e.g., smacking intimate partner for even considering suicide) would not be excluded.
- 5. First Time Exclusion: Meets criteria; however, first time incident with no risk factors, inconsequential physical injury, minor psychological impact, and no prior community helper involvement (law enforcement, family advocacy program, child and/or adult protective services, behavioral health, military authorities, medical professionals, etc.). Requires 2/3 of voting members to determine that incident barely met criteria.
- "U.S. Army Medical Command Decision Tree Algorithm," 2007, p. 3.

Appendix B

Case Review Committee Case Presentation Format

Prior to January 2008

Each initial case presentation must include the following:

- 1. Name of the victim.
- 2. Case file name.
- 3. Case number.
- 4. Date case received.
- 5. Type of allegation.
- 6. ACR check.
- 7. Alcohol and drug involvement (yes/no).
- 8. Date of presenting incident.
- 9. Date of command contact/response, unit, commander/first sergeant.
- 10. Involvement of MP, CID, civilian police, CPS (yes/no).
- 11. Children present (yes/no) (names and ages).
- 12. Description of presenting events.
 - a. Client's definition.
 - b. Case manager assessment.
 - c. Results of collateral contacts.
 - d. Results of evaluation referrals.
- 13. Present suicide/homicide ideation (yes/no) and plan.
- 14. Medical records review.
- 15. History of family violence.
 - a. History of alcohol and drug abuse.
 - b. Administrative actions (yes/no).
 - c. Length of present relationship.
 - d. Level of education.
 - e. Abuse in family of origin.
 - f. Emotional / psychological problems.
 - g. Number of previous marital relationships.
 - h. Any weapons in the home.
- 16. General appearance.
 - a. Thought.
 - b. Eye contact.
 - c. Mood.
 - d. Other evaluations/observations (in other words, affect, attitude, and so on).
- 17. Risk (low, moderate, high).
- 18. Case manager assessment to include imminent risk and potential for risk (risk factors).
- 19. Recommendations to CRC.
 - a. Substantiated.
 - b. Unsubstantiated–unresolved, unsubstantiated-did not occur, or voluntary services.
 - c. Level of substantiation, mild, moderate, or severe.
- 20. SPAM/CHAM level of treatment: I, II, III, IV, (according to DOD 6400.1-M).
- 21. Treatment recommendations.
 - a. Problems.
 - b. Recommended treatment.
 - c. Date of completion.
 - d. Remarks / changes.
- 22. PCS / ETS date.
- 23. Date of presentation, name of presenter, and date of review.
- 24. Commander / first sergeant present (yes/no).

[&]quot;Army Regulation 608-18," 2011, p. 84.

Appendix C

Family Advocacy Definition of Spouse Abuse / Partner

Maltreatment Prior to January 2008

An incident or incidents that indicate an emerging pattern or risk of further victimization of the spouse/partner. Excluded are behaviors indicative of marital discord with the absence of abusive acts (for example, arguments or disagreements regarding child rearing, financial management, and so on). Spouse/partner maltreatment incident indicators may include one or more of the following:

- A pattern of intentional acts of berating, disparaging or other verbally abusive behavior that adversely affects the psychological well-being of the spouse or partner.
- Coercive control and/or threatening behavior including terrorizing behavior (for example, threats to children, pets, or property).
- A pattern of restricting or withholding economic resources for the purpose of controlling the spouse/partner.
- pattern of intentional intimidation for the purpose of controlling the spouse/partner.
- Isolation of a partner from Family, friends, or social support resources.
- Chronic intentional interference with cultural adaptation.
- Physical assault(s) or threat(s) of physical violence with or without a weapon.
- An act which by itself or in conjunction with other conduct constitutes stalking.
- Sexual assault(s), threat(s) of sexual assault, or coercing a partner to engage in undesired sexual activity with alleged offender or other persons.
- Obstructing a partner from receiving medical services.
- Intentional neglect by refusing or obstructing a mentally/physically incapacitated spouse from receiving appropriate social, mental, or medical services.

"Army Regulation 608-18," 2007, p. 112

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Biographical Information

Tyler DuMars was born and raised in Albuquerque, New Mexico. He graduated with a Bachelor's degree in Psychology from New Mexico State University in 1996. In 1998, he earned his Master of Social Work degree from Boise State University. He has worked as a Licensed Clinical Social Worker in the fields of child protection and intimate partner violence since 1999.

DuMars' research interests include the practice and policy of child protection, intimate partner violence, and military social work. In his spare time, he enjoys spending time with his family, hiking in the mountains, and viewing sunsets from just about anywhere in the world.