

## ABSTRACT

### THE EFFECTIVENESS OF A MIDWESTERN SEXUAL ASSAULT RESPONSE TEAM IN INITIAL RESPONSE TO SEXUAL ASSAULT VICTIMS

By Amber Geocaris

The purpose of this study was to evaluate the effectiveness of the initial response of a Midwestern sexual assault response team (SART) to sexual assault victims. Sexual assault response teams were developed to provide more coordinated care to the victims of sexual assault and are comprised of community agencies, including law enforcement, advocacy, sexual assault nurse examiners (SANE), and human services.

Neuman's System Model was used as a framework for this study, with specific focus on secondary intervention as it related to the initial response of the SART to victims of sexual assault. This theory supports the efforts of SART to provide holistic care to victims of sexual assault, and to assist them in moving towards a state of health.

Descriptive data from a convenience sample ( $n = 81$ ) was utilized in this pilot study. An investigator-developed tool was utilized to collect quantitative, descriptive data. Agency personnel involved in SART from law enforcement, human services, advocacy, and SANE collected this retrospective data.

Findings revealed demographic similarities between the convenience sample and national samples. Results indicated that most victims consented to law enforcement involvement and follow-up with victim advocacy. Further data collection is needed to fully evaluate the effectiveness of the initial response of the SART.

THE EFFECTIVENESS OF A MIDWESTERN SEXUAL ASSAULT RESPONSE TEAM  
IN INITIAL RESPONSE TO SEXUAL ASSAULT VICTIMS

by

Amber Geocaris

A Clinical Paper Submitted  
In Partial Fulfillment of the Requirements  
For the Degree of

Master of Science in Nursing

Family Nurse Practitioner

at

University of Wisconsin Oshkosh  
Oshkosh, Wisconsin 54901-8621

May 2009

APPROVAL

Ricki Moss Advisor

4/14/09 Date Approved

INTERIM PROVOST  
AND VICE CHANCELLOR

E Alan Hartman

4/28/2009  
Date Approved

FORMAT APPROVAL

Gloria Splittgen

4/9/2009 Date Approved

To my husband, Mike—You have been my rock when I needed strength, and my beacon when I lost my way. I owe much of my success to your unwavering encouragement and support. Thank you for sharing your life with me.

To my parents—I cannot thank you enough for your continued support, understanding and patience. May I only ever give you love, bring you joy, and make you proud.

To my friend Shannon—Your wisdom and advice have served me well. I would not be where I am today had it not been for you. May God bless you in your selfless service to our community.

## ACKNOWLEDGMENTS

I would like to acknowledge Sam, Al, and the SART team for their contribution to this project. Thank you for the privilege of working in collaboration with you on this project. I am grateful to have had the opportunity to work with a group so dedicated to the specialized needs of these victims. Our community is a better place because of your service. May your future endeavors be filled with success.

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	vi
LIST OF FIGURES .....	vii
CHAPTER I – INTRODUCTION .....	1
Significance to Nursing .....	4
Problem Statement .....	6
Purpose .....	6
Research Question .....	6
Definitions of Terms .....	7
Conceptual Definitions .....	7
Operational Definitions .....	7
Assumptions .....	8
Chapter Summary .....	9
CHAPTER II – THEORETICAL FRAMEWORK AND LITERATURE REVIEW .....	10
Introduction .....	10
Theoretical Framework .....	10
Basic Structure .....	12
Lines of Defense .....	12
Lines of Resistance .....	13
Stressors .....	13
Conceptual Overview .....	14
Model Case .....	15
Literature Review .....	16
Current Practices .....	17
Sexual Assault Nurse Examiner .....	19
Sexual Assault Response Team .....	19
Critical Analysis of Literature Review .....	22
Summary of Literature Review .....	22
Chapter Summary .....	23
CHAPTER III – METHODOLOGY .....	24
Introduction .....	24
Research Design .....	24
Population, Sample and Setting .....	24
Data Collection Instrument .....	25
Data Collection Procedures .....	25
Human Protection and Ethical Considerations .....	26
Data Analysis Procedures .....	26
Limitations .....	27
Chapter Summary .....	27

TABLE OF CONTENTS (Continued)

	Page
CHAPTER IV – FINDINGS AND DISCUSSION.....	28
Introduction.....	28
Demographic Data.....	29
Chapter Summary.....	40
CHAPTER V – SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	41
Introduction.....	41
Summary.....	41
Conclusions.....	42
Limitations.....	43
Implications for Nursing Practice.....	43
Recommendations for Further Research.....	44
APPENDIXES	
Appendix A: Data Collection Tool.....	45
Appendix B: UW Oshkosh IRB Approval Letter.....	50
Appendix C: Request for Participation and Consent.....	52
REFERENCES.....	55

## LIST OF TABLES

	Page
Table 1. Ages of Victims .....	29
Table 2. Victim Gender .....	30
Table 3. Time Frame in Which Sexual Assaults Were Reported .....	31
Table 4. How SANE Was Contacted .....	32
Table 5. Victim/Perpetrator Relationship .....	33
Table 6. Victim Race .....	34
Table 7. Victim Intoxication With Alcohol or Other Drugs .....	35
Table 8. Underserved Populations .....	36
Table 9. Communication of Underserved Needs to the Advocate.....	37
Table 10. Law Enforcement's Initial Contact .....	38
Table 11. Advocacy Presence During Initial Response .....	39

## LIST OF FIGURES

	Page
Figure 1. The Neuman Systems Model (1972) .....	11

## CHAPTER I

### INTRODUCTION

Sexual assault is a significant community problem affecting “1 of every 5 women, and 1 of every 33 men” at some time in their life (Tjaden & Thoennes, 2006, p. 7). Survivors of sexual assault often suffer harmful consequences to their health including social, psychological, and physical effects (Brener, McMahon, Warren, & Douglas, 1999; Centers for Disease Control and Prevention [CDC], 2007; Hankin et al., 1999; Koss, Koss, & Woodruff, 1991; Plichta & Falik, 2001; Ullman & Brecklin, 2003). These victims also encounter difficulties accessing care and navigating the fragmented systems in their communities (Ahrens et al., 2000).

Efforts to decrease the number and severity of ill effects suffered by victims of sexual assault include access to available community services to assist in their recovery. When victims are empowered in their recovery process and treated with empathy and support, they are better equipped to begin the journey from victim to survivor (Campbell, Patterson, Adams, Diegel, & Coats, 2008; Golding, Siegel, Sorenson, Burnam, & Stein, 1989). On the other hand, if victims are the recipients of unsupportive, victim-blaming care, psychological adjustment can be impaired (Campbell et al., 1999; Davis, Brickman, & Baker, 1991; Starzynski, Ullman, Filipas, & Townsend, 2005).

Sexual assault is a community issue and does not occur in isolation. Though community efforts in the past have focused on prevention of sexual assault, it is becoming clear that a more formalized, coordinated response to victims of this crime is necessary. A victim's well-being is affected by how society responds to the assault. Campbell (1998) identified that sexual assault victims utilize several community

agencies including: rape crisis centers, hospitals, law enforcement, prosecutors, and mental health centers. Given the vastly different services provided by these agencies, it is apparent how care could be easily fragmented, thus leaving many victims falling through the cracks. Comprehensive care for these victims requires experts in all areas of sexual assault care to provide assistance in a coordinated fashion (Johnston, 2005).

In response to the overwhelming reports of the unfair treatment of victims of crime, the U.S. government developed the President's Task Force on Victims of Crime in 1982. The Office for Victims of Crime was established in 1984 and as a result, the Violence Against Women Act (VAWA) was passed in 1994. This act was designed to end violence against women, improve the criminal justice response, and increase available services for victims (Sklar & Lustig, 2001). The VAWA was reauthorized in 2000 and 2005, to include a stronger focus on the needs of sexual assault victims and an increased focus on access to services by underserved populations (Roe, 2004; U.S. Department of Justice Office on Violence Against Women, n.d.).

As a result of the development and implementation of the VAWA, response to sexual assault at the local, state and federal levels has improved. It has also provided a stimulus for change in public attitude, policy, and law regarding sexual assault and its victims. One of the aims of VAWA is to support victims of this crime to engage in the criminal justice system. If this effort is to be effective, it is necessary to provide services and support for the crisis, emergent, and on-going emotional needs of victims to assist in the healing process (Roe, 2004).

Services provided to victims of sexual assault have improved since the development of sexual assault nurse examiner (SANE) programs. Research supports improved forensic evidence collection leading to higher reporting and conviction rates.

Improved delivery of medical services, including sexually transmitted disease (STD) prophylaxis, and pregnancy prevention, has also been identified (Burgess, Lewis-O'Connor, Nugent-Borakove, & Fanflik, 2006; Crandall & Helitzer, 2003; Ledray, 1999; Littel, 2001).

The benefits of advocacy for victims of sexual assault have been well documented, and their supportive role has been vital to the establishment of mental health treatment for victims (Campbell, Patterson, & Lichty, 2005; Littel, 2001). Advocates also provide the much needed follow-up services found to be lacking in other community agencies (Ericksen et al., 2002; Lewis, DiNitto, Spahr-Nelson, Just, & Campbell-Ruggaard, 2003).

Legal services offered to victims of sexual assault have been found to both assist them and cause harm. Enduring the lengthy legal process from arrest to prosecution can be stressful for a victim, and regardless of the outcome of the case, it can result in re-victimization (Campbell, Wasco, Ahrens, Sefl, & Barnes, 2001).

Victim perceptions of law enforcement have been less favorable (Baumer, Felson, & Messner, 2003). Many studies have been done on law enforcement perceptions of, and interactions with, victims of sexual assault, and very few have portrayed them in a positive light. As a result, victim-centered training efforts have been focused in this area (Baumer et al.; Campbell & Ahrens, 1998; Campbell et al., 1999; Campbell et al., 2001; Ericksen et al., 2002; Kerstetter, 1990; Koss, Bachar, Hopkins, & Carlson, 2004; Lewis et al., 2003).

In an attempt to improve quality, and provide more holistic, coordinated care to the victims of sexual assault, sexual assault response teams (SART) were developed. The SART model is still a relatively new concept, and its primary purposes are to

coordinate care and services for victims of sexual assault, prevent confusion among the professionals providing care, and avoid re-victimization of the sexual assault victim (Ledray, 1999).

Multiple agencies are represented by the SART team, and typically consist of SANE, law enforcement, sexual assault center advocates, and prosecutors. Many other community agencies may also be represented such as mental health services, social work and school counselors (Ledray, 1999). Utilization of the SART model has been shown to increase sexual assault reporting (Ledray, 1999), improve delivery of available services (Campbell & Ahrens, 1998; Campbell & Bybee, 1997), and increase the likelihood of arrest and conviction (Nugent-Borakove et al., 2006).

#### Significance to Nursing

Sexual assault is an underreported community problem requiring a community response (Rennison, 2002). The incidence is staggering: "Every 2 minutes someone in the U.S. is sexually assaulted" (Rape, Abuse, and Incest National Network [RAINN], 2008, paragraph 2). This coupled with the fact that only approximately 6% of rapists ever spend any time in jail, solidifies the need for community action from multiple agencies.

Studies have identified victim difficulty with community services for several reasons, including difficult access and negative perceptions of treatment (Campbell, 1998). It is also known that negative contacts with community agencies are associated with worse health outcomes for these victims (Campbell et al., 1999). Victims of this crime are referred to their primary care physician or nurse practitioner (NP) for follow-up medical care after receiving services from the SART (Fulginiti et al., 1996).

The role of the NP includes the provision of primary health care. In this role, intimate knowledge regarding health issues and concerns is expressed by the patient and education is delivered by the NP. This offers a unique opportunity for the development of trust between provider and patient, and an exploration of community services available to address each patient's individual needs. When the community services for victims of sexual assault are a collaborated effort, referrals into the system are more streamlined and victim-centered, and better provide for the needs of each sexual assault victim.

Nurse practitioners have a responsibility to screen all patients for violence, including sexual violence. Given the frequency of sexual assault in this country, it is very likely that many patients seen on a daily basis by NPs have been victims of sexual assault. It has been well documented that victims of this type of crime have:

(a) increased utilization of health care services; (b) higher levels of emotional distress including posttraumatic stress (PTS) (Foa, Rothbaum, Riggs, & Murdock, 1991); (c) less well-being (Koss et al., 1991); (d) increased gynecological health symptoms (Campbell, Lichty, Sturza, & Raja, 2006); (e) increased rates of depression; and (f) are more likely to engage in negative health behaviors such as smoking, alcohol abuse, drug use, and high risk sexual activity (CDC, 2007; Hankin et al., 1999).

If patients presenting with these symptoms are not identified as victims of sexual assault, difficulty will arise in treating their resultant symptoms unless the underlying issues related to the sexual assault are addressed. Having collaborated community services available to these individuals will allow exploration of their physical, psychological, and social health effects in a safe environment, and support the initiation of the healing process.

In communities utilizing a SART model, it is hoped that this coordinated effort improves access and use of available services. The importance of services for sexual assault victims cannot be overlooked, regardless of the length of time since the assault. Campbell et al. (1999) have identified that victims who obtained mental health services had lower PTS scores than those who did not receive treatment.

### Problem Statement

Though the availability and success of individual community resources have been well documented, there is a lack of research regarding the effectiveness of community collaboration in an organized SART program. The SART is a relatively new approach to community care delivery, having been developed and implemented within the last 10 years. Little is known regarding the effectiveness of SART models of care in their initial response to victims of sexual assault. Particularly lacking in the literature are studies utilizing comparative data, and those involving hospital participation in the SART model.

### Purpose

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of the initial response to sexual assault victims of a Midwestern SART team.

### Research Question

What is the effectiveness of a SART team in initial response to sexual assault victims?

## Definitions of Terms

### *Conceptual Definitions*

*Effectiveness:* The ability of the SART program interventions to assist in the preliminary repair of the damaged lines of resistance, caused by the penetration from the external stressor of the sexual assault, and to avoid further damage to the lines of resistance (Neuman & Fawcett, 2002).

*SART:* The organization and collaboration of community agencies consisting of law enforcement, SANE, advocacy, prosecution and mental health services, to provide expert, holistic care to victims of sexual assault (Ledray, 1999).

*Initial response:* The action taken by the SART team upon their first encounter with a victim of sexual assault.

*Sexual assault victim:* An individual who has experienced unwanted physical contact to their ano-genital area or breasts by another individual.

### *Operational Definitions*

*Effectiveness:* The initial actions of SART members during the provision of care to sexual assault victims including services provided by SANE, law enforcement, advocacy and Human Services.

*SART:* The collaboration of SANE, law enforcement, advocacy, and social work to provide coordinated care to victims of sexual assault.

*Initial response:* The initiation of care for the victim of sexual assault by the SART member to which the victim first presents. This initial response of law enforcement includes eliciting a statement of the incident if the victim so desires, establishing probable cause to charge, identification and interview of the suspect. The initial response of SANE includes medical and forensic exam for evidence collection if the

victim consents and meets the criteria for an exam. The initial response of the sexual assault advocate includes education regarding victim's rights and the process and consequences of reporting or not reporting to law enforcement. The initial response of human services includes involvement in the victim interview, if criteria met, and making appropriate referrals based on state law. Many of the initial response duties overlap between agencies, and initial response duties differ depending on the age of the victim, and whether a police report will be made.

*Sexual assault victim:* An individual who experiences unsolicited and unwanted sexual contact by an assailant as described by the victim of the assault. This will include individuals across the lifespan, of all races and genders, who present to law enforcement, SANE, advocacy or human services in the Midwest county included in this study.

### Assumptions

For the purpose of this study, the following assumptions were made:

1. The effectiveness of the SART program is measurable.
2. Sexual assault victims seek assistance from community agencies.
3. The SART response to sexual assault is a coordinated effort.
4. Sexual assault is an external environmental stressor with the potential to cause system imbalance.
5. Sexual assault victims' lines of resistance will be penetrated as a result of their assault.

6. The victim of sexual assault is at risk for moving away from a state of wellness as a result of their lines of defense being overwhelmed by the external stressor of sexual assault.

### Chapter Summary

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of the initial response to sexual assault victims by a Midwestern SART. Sexual assault is a significant community problem, and the survivors of this crime often suffer harmful consequences to their health and well-being. Community services for these victims have long been in effect, but have been difficult to access and are fragmented. This has resulted in poor provision of services and impedance of the recovery process for sexual assault victims. The passage of the VAWA in 1994 and the successive reauthorizations in 2000 and 2005 provided federal recognition of the needs of women as victims of crime. The SART model was developed out of this need to provide specialized services to victims of this crime.

Given the frequency of sexual assault, it is very likely that NPs will regularly care for individuals who have been sexually assaulted. In the provision of primary care, NPs have a responsibility to screen for, and identify victims of violence and encourage referral to appropriate services to begin the recovery process.

In this chapter, the background of the study and the significance to nursing were discussed. The problem statement, purpose, and research questions for this study were identified. Conceptual and operational definitions were developed for key concepts in this study.

## CHAPTER II

### THEORETICAL FRAMEWORK AND LITERATURE REVIEW

#### Introduction

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of the initial response to sexual assault victims of a Midwestern SART team. The Neuman Systems Model (1972) was utilized as a framework for this study (Figure 1). In this chapter, a description of the framework, followed by a review of literature on SART are presented.

#### Theoretical Framework

Neuman's Systems Model is derived from general systems theory, which explicates the dynamic relationship between person and environment. According to Neuman and Fawcett (2002), this model can be utilized for a social issue. "The wholistic perspective, concepts, and processes of the Neuman Systems Model remain equally applicable to any healthcare discipline, which increases the value of the model for interdisciplinary and multidisciplinary use" (p. 3). This model views the client as a system, with a focus on the dynamic relationship between actual or potential stressors in the environment, as well as primary, secondary, and tertiary nursing interventions aimed at retention, achievement, or maintenance of optimal wellness and client system stability (Melton, Secret, Chien, & Andersen, 2001). According to Neuman and Young (1972), this model may be used to describe "an individual, a group or the community" (p. 265).

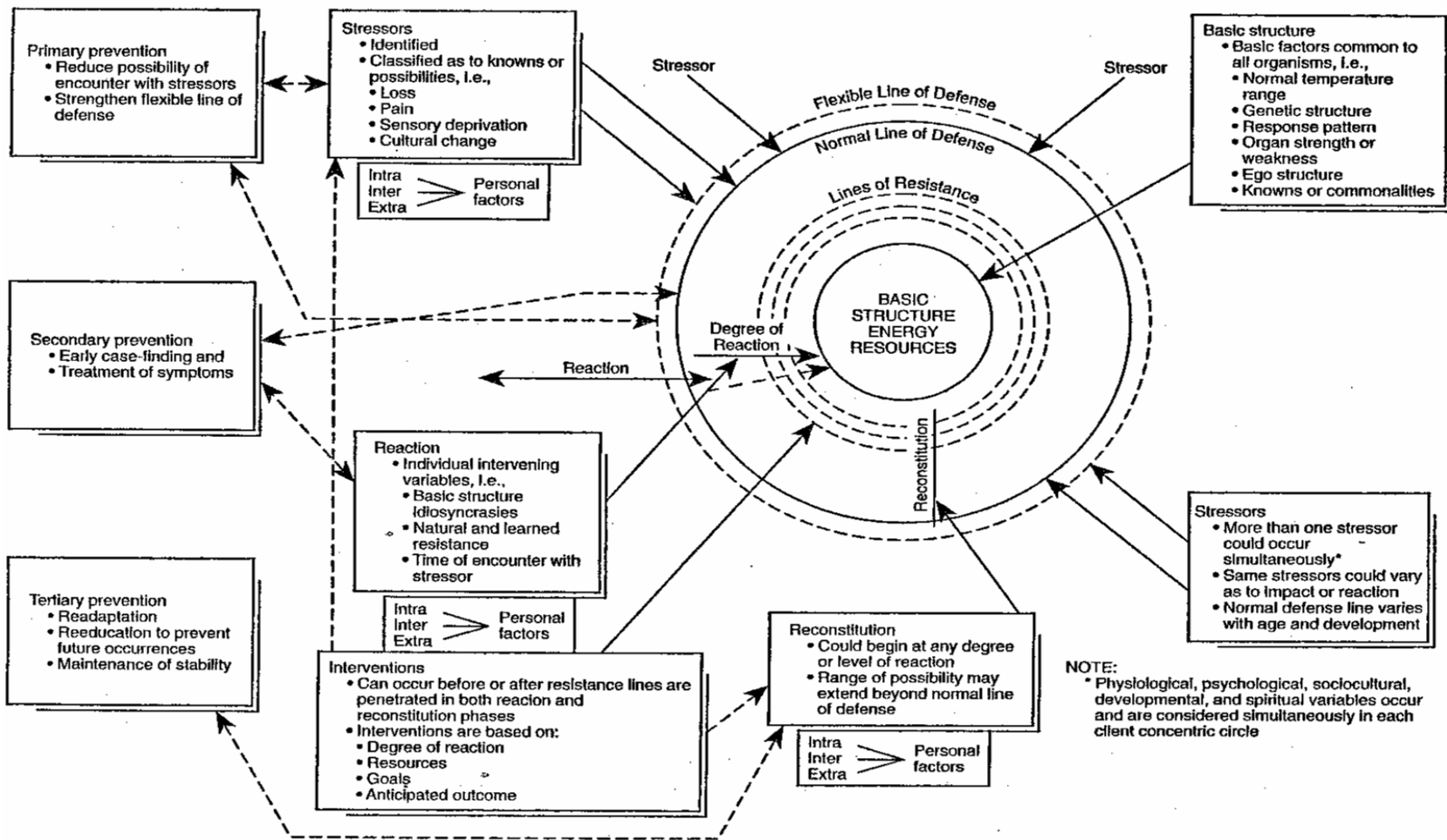


Figure 1. The Neuman Systems Model (1972).

Given that sexual assault is both an individual and community problem, Neuman's System Model provides a framework to encompass this issue, and an ideal structure from which to develop interventions for victims of sexual assault.

### *Basic Structure*

The basic structure of the client system is the core of the model. It is comprised of basic factors necessary for survival, including: genetic, physiologic and ego structures, response patterns, and organ strength or weakness. Five interacting variables surround the basic structure of the client system, are simultaneously involved in the surrounding lines of resistance and the normal and flexible lines of defense, and include the aspects of: physiological, psychological, developmental, sociocultural, and spiritual. Interactions between these variables assist in the maintenance of balance and harmony in the life of the client (Neuman & Fawcett, 2002). Available community services that address each of these essential variables have the potential to promote a return to balance and harmony for the victim of sexual assault.

### *Lines of Defense*

Surrounding the client system are flexible and normal lines of defense. The flexible line of defense forms the outermost boundary, and acts as a buffer for the client's stable state. In an ideal situation, this flexible line of defense prevents stressors from invading the client system, and maintains the stable state of function (Neuman & Fawcett, 2002).

The normal line of defense lies beneath the flexible lines of defense, and represents the normal state of wellness for the client. This state of wellness is a result of the ability of the five interacting variables to adjust to environmental stressors, and is the standard from which any variance from wellness is measured (Neuman Systems Model

Trustee Group, Inc., 2005; Neuman & Fawcett, 2002). These lines of defense are already established for each individual prior to experiencing a sexual assault. The strength of these lines of defense will determine the extent to which the external environmental stressor of sexual assault will penetrate their basic structure. Community services focused on evaluating the state of wellness, and the extent to which the lines of defense have been penetrated, will provide direction for the efforts of service providers to assist the victim in returning to a state of wellness.

#### *Lines of Resistance*

Lines of resistance are located beneath the normal line of defense, and are activated when environmental stressors penetrate the normal line of defense. The lines of resistance serve to protect the basic client structure. Contained in these lines of resistance are internal and external resources that support the basic structural integrity and normal line of defense, thus providing overall system integrity. When the lines of resistance are working effectively, the system is able to reconstitute itself, by reversing the negative reaction of the environmental stressor, and returning to a state of equilibrium. Reconstitution may involve moving to a state of wellness beyond that of the usual state, a return to the usual state of wellness, or stabilization to a lower level of wellness. Community agencies involved in the care of victims of sexual assault are able to assist victims by providing them with the support and resources necessary to repair the damage to their lines of resistance and reconstitute themselves to a state of wellness.

#### *Stressors*

Stressors, according to the model, are “tension-producing stimuli with the potential for causing system instability” (Neuman & Fawcett, 2002, p. 21). These

stressors can occur within the internal or external environment of the client system. They are regarded as inherently neutral, with the client's perception of, and reaction to the stressor determining the direction of the resultant contact with the stressor.

Wellness and illness are depicted in this model on opposite ends of a continuum. Movement away from wellness is a result of stressors overwhelming the lines of defense in the client's system, thus moving the client's system out of balance and towards illness (Neuman & Fawcett). Sexual assault is an example of an external environmental stressor, and given the myriad of social, physical and psychological effects of sexual assault, it is easily capable of overpowering a victim's normal and flexible lines of defense. When the lines of defense are overwhelmed, the client moves away from the wellness continuum towards that of illness. The SART model of care is an attempt to reduce this invasion through the victim's lines of defense, and assist them in beginning the process of reconstitution. Policy and protocols that support and rebuild the victim's lines of defense have the potential to assist them in returning to a state of wellness.

#### *Conceptual Overview*

The concepts identified by Neuman's System Model provide the basis for understanding the dynamics of sexual assault on a victim, the impact of reporting a sexual assault, and the care provided to the victims by community agencies. The concepts used to describe a victim of sexual assault include: basic structure, lines of resistance, normal line of defense, and flexible lines of defense, and reaction to the stressor. The sexual assault is conceptualized as an external environmental stressor, and the services encountered by the sexual assault victim are conceptualized as interventions. And finally, reconstitution describes the state of the victim along the

wellness continuum after the initial response of the SART. In this study, the concept of intervention was examined.

The concept of intervention is focused on “adapting, stabilizing, reeducating, or maintaining the individual in a desired state of wellness” (Neuman & Young, 1972, p. 266). Interventions can occur prior to a reaction to a stressor, referred to as primary prevention. Secondary prevention is an intervention that occurs after the lines of resistance have been penetrated, with the goal being to assist the individual in reconstitution. And finally, an intervention with the overall goal aimed at a reduction of future occurrences of the stressor after reconstitution, is referred to as tertiary prevention.

The focus of this study was on secondary prevention, specifically as it relates to the initial response of the SART to victims of sexual assault. It has been suggested by Campbell (1998), that a holistic view of community response to sexual assault would help to promote understanding, and allow for evaluation of the effectiveness of community agency interventions.

#### Model Case

The following is a hypothetical model case to help explain the use of Neuman’s Systems Model in the initial SART response to sexual assault victims. Jane has been sexually assaulted by a known acquaintance and has decided to report this assault to law enforcement. Jane is emotionally traumatized by what has happened to her, and as a result she has felt fearful, anxious, and guilty. Jane’s sexual assault represents an external environmental stressor. The emotions felt by Jane as a result of this unsolicited

and unwanted sexual contact indicate that her lines of defense and lines of resistance have been invaded, and are moving her basic structure away from a state of wellness.

When Jane presents to the police department in her community to report her assault she is informed that a SART model is used in the care of victims of sexual assault. An advocate arrived at the police station and accompanied Jane and the responding officer to the local hospital to meet with the SANE. At the hospital Jane gave her statement to law enforcement and SANE. The sexual assault advocate was present for emotional support. A forensic sexual assault exam was done by SANE for the purposes of injury documentation, evidence collection, and prophylactic treatment of STDs and pregnancy prevention.

This coordinated response by SANE, law enforcement and advocacy represents the initial SART response. Jane appreciated having to “tell her story” only one time. She was grateful for the emotional support offered, and the information provided by the advocate regarding further counseling and follow-up services available at the local sexual assault center. She felt she was believed, respected and cared for during her interactions with the various SART team members. The interventions implemented at the initial SART response began rebuilding the damage done to Jane’s lines of defense, and assisted her in reconstitution to a state of wellness.

### Literature Review

The following literature review includes current practices in caring for victims of sexual assault, the history and development of SART, and previous research on SART models. A critical analysis of available research on SART is also included.

### *Current Practices*

Currently, emergency departments are a key source of care for victims of sexual assault. After a sexual assault occurs, victims are at risk for unwanted pregnancy, STDs, and may have suffered physical injuries as a result of their assault. Straight and Heaton (2007) found that nearly 80% of all visits to emergency departments by victims of sexual assault resulted in insufficient care as outlined by the Centers for Disease Control and Prevention (CDC). Other limitations to current treatment are lengthy emergency room waits, as less than one third of all victims of sexual assault present with physical injuries, and thus are not viewed as high-priority patients (Ledray, 1992). Emergency department staff may also be rushed, with little time to explain procedures and offer emotional support, and many lack proper training to adequately perform forensic evidence collection and medical treatment (Ahrens et al., 2000).

Law enforcement has historically been viewed by victims of sexual assault in a negative light, and as a cause of secondary victimization. Victims report feeling they were not believed or that law enforcement appeared to have made assumptions regarding their motives for reporting the assault (Baumer et al., 2003; Campbell, 1998; Campbell & Bybee, 1997; Campbell et al., 1999). Campbell and Johnson (1997) studied how police officers defined rape and found that 51% of the 91 law enforcement officers surveyed included victim-blaming in their response. However, it appeared that the more education and experience a law enforcement officer had, the more their definition was based on legal standards rather than personal biases and beliefs.

As a result of the negative perceptions of victims towards law enforcement, energy has been focused on education in victim-centered care. Lonsway, Welch, and Fitzgerald (2001) did two experimental studies with N=161 and N=450 police recruits.

The recruits participated in either a traditional or experimental training program on sexual assault response. The findings of this study support behavioral training as an effective means of improving behavioral performance, though interestingly, it did not have any effect on cognitive or attitudinal outcomes.

Secondary victimization has been identified as having an impact on the well-being and recovery of victims after sexual assault, and is defined as attitudes, practices, and behaviors of community service providers that support victim-blaming (Campbell et al., 1999; Campbell, Wasco, Ahrens, Sefl, & Barnes, 2001). Secondary victimization most often results from a negative interaction with one or more community agencies accessed by the sexual assault victim (Campbell et al., 1999; Koss, Bachar, Hopkins, & Carlson, 2004).

Though vast research has been done regarding the mental health impact of individual community agency services on sexual assault victims (Campbell; Campbell et al., 2008; Campbell et al., 1999; Campbell, Wasco, Ahrens, Sefl, & Barnes, 2001; Koss et al., 2004), it appears that studies exploring the effectiveness of SART models, on both case outcomes and victim well-being, particularly those utilizing one hospital as the designated care center for all victims of sexual assault within a specified region, are lacking (Campbell et al., 2001; Campbell et al., 1999; Campbell, 1998; Hatmaker, Pinholster, & Saye, 2002; Koss et al., 2004; Lewis, DiNitto, Spahr-Nelson, Just, & Campbell-Ruggaard, 2003; Littel, 2001; Plichta, Vandecar-Burdin, Odor, Reams, & Zhang, 2006). This coordinated effort to provide services to victims of sexual assault has been found to improve delivery of available services (Campbell & Ahrens, 1998; Campbell & Bybee, 1997), and increase the likelihood of arrest and conviction (Nugent-Borakove et al., 2006).

### *Sexual Assault Nurse Examiner*

Sexual assault nurse examiner (SANE) programs were established in the 1970s in an effort to provide emotional support for victims of sexual assault, consistent and comprehensive medical services, quality collection of forensic evidence, and assistance with referrals to community services. It was also hoped that the services provided by SANE would increase reporting to law enforcement, and improve prosecution rates for the perpetrators of these crimes (Campbell, Patterson, & Lichy, 2005).

Ericksen et al. (2002) identified psychological benefits for victims receiving care by SANE after a sexual assault. Improved forensic evidence collection (Ledray, 1999; Littel, 2001), and the provision of consistent and comprehensive medical services have been well documented (Ciancone, Wilson, Collette, & Gerson, 2002; Johnston, 2005). Ledray (1992) reports SANE involvement has been helpful to law enforcement, and has facilitated follow through in the legal process.

### *Sexual Assault Response Team*

Though improvements have been made in the collection of forensic evidence and medical treatment by the initiation of SANE, it does not provide for all services needed by the victim of sexual assault. Community agencies cannot work in isolation, and are dependent upon each other for specialized services to care for victims of these crimes and to prosecute the perpetrators to the full extent of the law.

Building on the success of SANE programs, sexual assault response teams (SARTs) were developed to facilitate communication between community agencies and assist victims in their recovery process (Girardin, 2005; Hutson, 2002; Littel, 2001; Wilson & Klein, 2005). Available literature regarding SART appears to focus on judicial outcomes, SANE specific outcomes, or is related to program organization and

development. Many of the previous studies are descriptive in nature, lack comparative data, and do not address the multidisciplinary aspects of SART.

Hatmaker et al. (2002) discussed SART program development. Opportunities for growth and development were identified and included attainment of program funding, recruitment and retention of SANEs, and development of a collaborative relationship between community agency members. The author also described some of the challenges faced in developing such a program such as burn out and attrition of staff and navigating issues regarding overlapping roles of agency members. Multidisciplinary team participation has been received positively by communities and victims; hence continued dedication to the improvement of services is warranted.

Johnston (2005) studied the structure, process and outcomes of a SART program utilizing a quantitative approach. Structural indicators related to organizational development were identified and assessed, including stated program mission and goals, monthly meetings, and existing policies. Process indicators were assessed based on forensic evidence collection and medical services provided. And finally, outcome indicators based on responses from sexual assault victims who participated in the SART program were evaluated.

Findings identified positive collaborative relationships within the multidisciplinary team, and a strong organizational structure. Process indicators revealed a functional SANE program. Of interest, the outcome indicators revealed that the victims participated in minimal follow-up counseling and expressed regrets about having reported to law enforcement. These results should be viewed cautiously as only one program was evaluated, and a small sample size of 17 case reviews and 7 victim interviews were used. Clearly SART programs have room for improvement, and given the various

services available in each community, each individual program should identify and assess desired outcomes.

Wilson and Klein (2005) studied the Rhode Island SART, and provided the first outcome evaluation of a SART program. Data were collected retrospectively on 200 sexual assault cases from court records, sexual assault reporting forms, police reports, and the Rhode Island SART files. Of the 200 selected cases, 176 were non-SART and 24 were SART cases. Contingency analysis was done utilizing Fisher's exact test to examine several hypotheses related to improved judicial outcomes and charging.

The results of this document offered no statistically significant data in support of the proposed findings; hence there was no statistical evidence of improved judicial outcomes for victims participating in a SART approach. The authors do state that results should be interpreted with caution as a small sample size was used, thus decreasing the power of their study. Also of note, the Rhode Island SART was in its infancy, and true outcomes may not have been evident until program maturity. Finally, though the SART impact on judicial processes appeared negligible, the program was found to have a positive impact on participating victims.

Burgess, Lewis-O'Connor, Nugent-Borakove, and Fanflik (2006) studied the efficacy of the utilization of SANE/SART programs as a tool in the criminal justice system. The outcomes studied were specific to the criminal justice system and included arrest, conviction and charging rates, length of sentences, and plea arrangements. They compared 262 SANE/SART cases with 268 non-SANE/SART cases from three counties in three different states. Police, court, and sexual assault records were utilized for the collection of this data. Inferential, multivariate and descriptive statistics were utilized to analyze the resultant data, and observe the differences between cases and between

SANE/SART intervention and individual case outcomes. The researchers concluded that SANE/SART cases when compared to non-SANE/SART cases are reported more promptly, include more DNA evidence, and participation in SANE/SART aids in increasing the likelihood of conviction. Insufficient information was available to assess the effects of SANE/SART on length of sentences.

### Critical Analysis of Literature Review

It is evident from the literature reviewed, that much remains to be studied regarding the effectiveness of SART programs. Evidence supporting SART improvements in conviction rate should be interpreted cautiously. Clearly there is a need for rigorous comparative studies, with appropriate sample sizes to establish statistically significant results to determine the true effects of SART implementation on criminal justice outcomes.

Also lacking in the available literature is a holistic evaluation of the SART model. Previous studies have focused solely on judicial and criminal justice outcomes, or measures related to SANE function. As the purpose of SART is a coordinated community response to victims of sexual assault, it is prudent to study SART in an inclusive, holistic manner, evaluating each agency's involvement in the team effort.

### Summary of Literature Review

The research on the effectiveness of SARTs is in its infancy. Given that this model has emerged in the last decade, much more research needs to be done to assess effectiveness and impact on outcomes of sexual assault, particularly as they relate to the multidisciplinary system. Multidisciplinary assessment of SART will provide a better

understanding of program function and effectiveness, and allow for appropriate recommendations for program improvement.

### Chapter Summary

In this chapter the theoretical framework and a literature review on SART were provided. Neuman's System Model was used as a framework for this study, focusing on secondary intervention, specifically as it relates to the initial response of the SART to victims of sexual assault. An investigator developed tool, based on Neuman's framework, was utilized to collect quantitative data related to the initial response of SART in a Midwestern county. It is hoped that the results of this study will provide data to support current SART practices and identify areas of improvement in provision of services for victims of sexual assault.

## CHAPTER III METHODOLOGY

### Introduction

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of the initial response to sexual assault victims of a Midwestern SART. In this chapter, the research design, population, sample, setting, data collection instrument, data collection procedures, and plan for data analysis will be discussed.

### Research Design

A quantitative, retrospective design was used to collect descriptive data measuring the outcomes and objectives of a Midwest county SART. This design allowed for the collection of anonymous, objective data to assess the effectiveness of each agency involved in the initial response to a sexual assault victim, as identified by the protocols of the SART.

### Population, Sample and Setting

The sample population for this study was sexual assault victims across the lifespan who have reported their assault in the participating Midwestern county. Community agencies included in this evaluation are SANE, law enforcement, advocacy, and human services. A convenience sample of 81 sexual assault cases was obtained utilizing hospital records, sexual assault advocacy center records, and police reports. The criteria for inclusion in this study were reported sexual assaults that occurred from September through December 2008.

### Data Collection Instrument

To date, there has been no research that has collectively assessed the effectiveness of SART including all agencies involved. A data collection tool (Appendix A) was developed by this investigator, in collaboration with the participating Midwestern SART for use in this study. Demographic data on the sexual assault victim, including age, gender, race, income, relationship status were collected. Data relating to the assault, including relationship to the perpetrator, number of perpetrators, injury documentation, use of weapon, and time between assault and report were also collected. Data collection focused on the initial response of the SART to the needs of the victim, and was not utilized to collect data regarding longitudinal outcomes such as conviction rates. All data collected have been documented as pertinent to sexual assault victims and SART in previous research.

### Data Collection Procedures

Permission to conduct this study was obtained from the University of Wisconsin Oshkosh Institutional Review Board for the Protection of Human Subjects (Appendix B). Written permission was also granted by the chairs of the SART in the Midwestern county where this study is proposed (Appendix C).

Supervisory members of each agency in the Midwestern county SART were responsible for the collection of the data utilizing the investigator developed tool. The investigator attended a SART staff meeting to instruct the supervisors on the utilization of the tool, and to answer questions related to its use. The investigator also attended a SANE staff meeting as it was determined by the SANE supervisor that the SANE staff doing the victim exams would be better able to complete the SANE data collection tool.

Instructions regarding the use and completion of the tool were provided and all questions related to the tool were answered. The collected data were provided anonymously to this investigator.

#### Human Protection and Ethical Considerations

Written permission was obtained from the chairs of the Midwestern county SART participating in this study. An application was made to the University Institutional Review Board for the Protection of Human Subjects prior to the start of the study, and was approved. The completed data collection tools were kept by this investigator locked in a fire proof safe. As the data were de-identified on the collection tool, and collected only by trained supervisors and SANE in each participating community agency, it was felt that minimal risk would be experienced by participation in this study. The SART team data collectors and this investigator met monthly during the data collection to address any questions or concerns regarding the data collection process. This investigator was available via email or phone for questions or concerns that arose between scheduled meetings.

#### Data Analysis Procedures

The data were organized and coded in numerical form for entry into SPSS for statistical analysis. Descriptive statistics were utilized to obtain frequencies and percentages from the collected data.

### Limitations

There are several limitations to this study.

1. The generalizability of the findings should be viewed cautiously as data were collected in only one Midwestern county.
2. The investigator-developed data collection tool may not have been a reliable or valid measure of the outcomes in question.
3. Data collection was subject to the accuracy and completeness by those completing the tool.
4. Researcher bias cannot be completely ruled out as this investigator was employed as a SANE in the county where the evaluation took place.

### Chapter Summary

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of the initial response to sexual assault victims of a Midwestern SART. Utilizing an investigator developed data collection tool, descriptive quantitative data were collected on victims of sexual assault presenting for services from a SART in a Midwestern county. The data were analyzed using descriptive statistics. This study was proposed in an effort to contribute to the current knowledge regarding SART implementation, and to improve effectiveness of care and outcomes for victims of sexual assault.

## CHAPTER IV

### FINDINGS AND DISCUSSION

#### Introduction

The purpose of this descriptive quantitative pilot study was to evaluate the effectiveness of a Midwestern SART in initial response to sexual assault victims. Utilizing an investigator developed data collection tool, quantitative descriptive data was collected from records of sexual assault victims' post-implementation of SART protocol in a Midwestern county. The data were analyzed using descriptive statistics. This study was proposed in an effort to contribute to the current knowledge regarding SART implementation, and to improve effectiveness of care and outcomes for victims of sexual assault.

The original methodology included a comparative data analysis of reported sexual assault cases before and after the implementation of the SART protocol. Time constraints prevented the collection of pre-implementation data, hence the study is purely descriptive, and consists of data post-implementation of the SART protocol. The original methodology also described that a pilot test including reliability and validity of the tool would be done prior to data collection. Again, time constraints prevented this, thus the following data represents a pilot test of the data collection tool. Reliability was unable to be performed as the questions on the data collection tool were mostly demographic in nature. Some of these early ideas are noted in the letter of request for participation and consent to the SART chairpersons of the Midwestern county SART participating in this study.

Data were collected by law enforcement officers, SANEs, and sexual assault advocates from their respective records dating from September 2008 to December 2008. A total of 105 forms were analyzed and represented 57 from the sexual assault center, 25 from law enforcement agencies, and 23 from SANE. No forms were received from human services. The 105 forms represented 81 individual victims. In this chapter, the findings of this descriptive pilot study will be discussed.

### Demographic Data

A convenience sample of 105 forms were collected from law enforcement, SANE, and sexual assault center, representing 81 victims of sexual assault. No forms were received from human services. The age and gender of the victims are listed in Table 1 and Table 2. The majority of the victims were between the ages of 12 and 17, and were predominately female.

Table 1

#### *Ages of Victims*

<i>(n = 81)</i>		
Age	Frequency	Percentage
0-5	5	6.2%
6-11	11	13.6%
12-17	31	38.3%
18-24	12	14.8%
25-34	16	19.8%
>34	6	7.3%

Table 2

*Victim Gender*

<i>(n = 81)</i>		
Gender	Frequency	Percentage
Male	6	7.4%
Female	73	90.1%
Missing	2	2.5%

The data revealed that 58.1% of victims were under the age of 18. This closely correlates with national crime statistics from 2000, which revealed that 67% of sexual assaults occurred in victims under the age of 18 (Snyder, 2000). Snyder also reported that 14.2% of the victims were between the ages of 18 and 24, and 11.5% were between the ages of 25 to 34. Snyder's findings closely compared with the data from this study, which found 12 victims ages 18 to 24 (14.8%), however, 19.8% of the victims in this study were ages 25 to 34. Overall, the collected data supports the findings in other studies of sexual assault, and discrepancies may be related to the small sample size of  $n = 81$ .

The data in this study revealed that 90.1% of the victims were female. This is strongly supported in other literature, which reports the percentage of female victims of sexual assault ranging from 86-94% (Rennison, 2002; Snyder, 2000).

Participating agencies were asked if the sexual assault case was a SART referral, meaning, were the individual agencies contacted by other SART participants, or were the referrals from non-SART individuals or agencies. Thirty-four cases (42%) were identified as resulting from SART referrals. Thirty-two cases (39.5%) were referred from

agencies or individuals not affiliated with SART. In 15 cases (18.5%) this data was missing.

The agencies were asked to specify the time frame in which the sexual assault was reported. This was asked in order to identify victims that were eligible for a SANE exam. SANE exams are done on consenting victims within 96 hours of a sexual assault, based on national protocols and the policy and procedures of the hospital providing the SANE services (U.S. Department of Justice, Office on Violence Against Women, 2004). Table 3 depicts the time frame in which the assaults were reported.

Table 3

*Time Frame in Which Sexual Assaults Were Reported*

<i>(n = 81)</i>		
Time Frame	Frequency	Percentage
Within 24 hours	29	35.8%
>24 hours, <96 hours	16	19.8%
>96 hours, <1 year	17	21.0%
>1 year	12	14.8%
Unknown	2	2.5%
Missing	5	6.2%

The data revealed that in 45 cases (55.6%), the assault had occurred within the previous 96 hours, meeting the criteria for a SANE exam. The remaining 36 cases (44.4%) either fell outside of the recommended time frame for a SANE exam, or the data was unknown or missing. All agencies were also asked if the victim met the criteria for SANE. This question was answered affirmatively in 39 cases (48.1%), and negatively in

37 cases (45.7%). In five cases (6.1%), this was unknown or the data was missing. This reveals that the majority of the time, victims presenting to a SART agency were appropriately being identified for a SANE exam.

The participating agencies were asked to identify who contacted SANE if an exam was recommended. The results are described in Table 4. Data was available for evaluation on only 23 of the 45 cases recommended for a SANE exam. This is a result of missing data, and represents incomplete documentation.

Table 4

*How SANE Was Contacted*

<i>(n = 81)</i>		
Who Made SANE Contact	Frequency	Percentage
Victim	9	11.1%
Sexual assault advocate	3	2.5%
Law enforcement	9	11.1%
Other	2	2.5%
Missing/not applicable	58	71.6%

The relationship of the victim to the perpetrator and race of the victim were asked. Victim/perpetrator relationships have been well studied in the literature. According to Tjaden and Thoennes (2006), only 22.8% of males and 16.7% of females reported being sexually assaulted by a stranger. It has been reported that the majority of victims (60.9%) knew their offenders (U.S. Department of Justice, 2008). In this study, 13 victims (16%) reported the perpetrator was a stranger. Fifty-five victims (71.7%) reported the perpetrator was known to them. This data is depicted in Table 5.

Table 5

*Victim/Perpetrator Relationship*

<i>(n = 81)</i>		
Relationship	Frequency	Percentage
Spouse or partner	5	6.2
Family member	11	13.6%
Acquaintance	42	51.9%
Stranger	13	16%
Other	7	8.6%
Unknown	2	2.4%
Missing	1	1.2%

Tjaden and Thoennes (2006) reported that no statistically significant differences could be found in the prevalence of sexual assault among minority or non-minority women. The data in this study revealed that 48 of the victims (59.3%) were White. This is likely due to the large percentage of White people (92.5%) living in the Midwestern county where the study was conducted (U.S. Census Bureau, 2006). This data is further delineated in Table 6.

Table 6

*Victim Race*

<i>(n = 81)</i>		
Race	Frequency	Percentage
Hispanic	4	4.9%
Native American	8	9.9%
Black	10	12.3%
White	48	59.3%
Other	4	4.9%
Unknown	2	2.5%
Missing	5	6.2%

The agencies were asked to identify, if known, whether or not the victims were under the influence of alcohol or other drugs at the time of the assault. Tjaden and Thoennes (2006) reported that one fifth to one third of the victims of sexual assault were under the influence of alcohol or other drugs at the time of the assault. Other studies report these numbers to be as high as one half to three quarters of victims (Wisconsin Coalition Against Sexual Assault [WCASA], 2007).

The data revealed that 15 cases (18.5%) of the victims in this study were under the influence of alcohol or other drugs when the assault occurred. Unfortunately, in 51 of the cases (63%) the data was either missing or unknown. These data are depicted in Table 7. It is likely that the percentage of cases in which the victim was under the influence of alcohol or other drugs is higher than was documented in this study. Sexual assault of an individual under the influence of alcohol or other drugs such that they are

unable to give consent constitutes second-degree sexual assault in the state where this study was done (WCASA, 2006). It is imperative that SART members obtain this information from victims so their cases can be prosecuted to the full extent of the law.

Table 7

*Victim Intoxication With Alcohol or Other Drugs*

<i>(n = 81)</i>		
Victim Intoxication	Frequency	Percentage
Yes	15	18.5%
No	15	18.5%
Unknown	6	7.4%
Missing	45	55.6%

The participating agencies were asked to identify whether the victims were from an underserved population. In this Midwestern county, underserved populations were identified as victims with disabilities, lesbian/gay/bisexual/transgender or questioning their gender (LGBTQ), and incarcerated victims. Individuals with cognitive disabilities are four to ten times more likely to experience violence than those without disabilities. Children with disabilities are thought to be at twice the risk for sexual abuse (Petersilia, 2001). Almost half of victims with disabilities experience more than ten incidents of sexual abuse (WCASA, 2003b). Evidence exists indicating that 42% to-51% of individuals in the LGBTQ population have been victims of sexual assault (WCASA, 2003a).

The agencies were also asked if the needs of the victims identified as underserved were communicated to the victim advocacy center, so special provisions

could be made for those victims. The advocacy center participating in this study had trained advocates to work with victims with special needs including those with cognitive disabilities, elderly victims, victims of Southeast Asian, Hispanic, Black or Native American heritage, and LGBTQ populations (Sexual Assault Center [SAC], n.d.). In only nine cases (11%) were victims identified as being from an underserved population. Of concern was that in 46 cases (56.8%), the data was missing. It is unclear whether the reported data accurately represents the victim population, as the majority of times this question was not answered. These data are depicted in Table 8 and Table 9.

Table 8

*Underserved Populations*

<i>(n = 81)</i>		
	Frequency	Percentage
Disabled	1	1.2%
LGBTQ	3	3.7%
Incarcerated	1	1.2%
Other	4	4.9%
Unknown	9	11.1%
Not applicable	17	21.0%
Missing	46	56.8%

Table 9

*Communication of Underserved Needs to the Advocate*

<i>(n = 81)</i>		
Needs Communicated	Frequency	Percentage
Yes	5	6.2%
No	7	8.6%
Not applicable	13	16.0%
Missing	56	69.1%

Historically, victims have had a poor perception of law enforcement. As a result victim-centered training efforts have been focused in this area (Baumer et al.; Campbell & Ahrens, 1998; Campbell et al., 1999; Campbell et al., 2001; Ericksen et al., 2002; Kerstetter, 1990; Koss, Bachar, Hopkins, & Carlson, 2004; Lewis et al., 2003). In an effort to improve services to victims of sexual assault, the law enforcement officers serving in the Midwestern county involved in this study had special sexual assault victim-centered training.

The data from this study revealed that in 49 cases (60.5%) the victim or legal guardian consented to law enforcement involvement in the case. In only five cases (6.2%) was law enforcement involvement declined. In 27 cases (33.3%), data were either missing, reported as unknown, or not applicable. Given that one third of the data were missing, it is difficult to determine the accuracy of these findings.

Law enforcement was asked to identify who made the initial contact with the victim of sexual assault. Eighty percent of the time patrol officers made the initial contact with the victim. This strongly supports the need for victim-centered training and ongoing

education for law enforcement officers to assist them in providing a sensitive response to victims of sexual assault. Table 10 depicts this data.

Table 10

*Law Enforcement's Initial Contact*

<i>(n = 81)</i>		
Initial Contact	Frequency	Percentage
Patrol officer	20	80%
School resource officer (SRO)	1	4%
Detective	4	16%

Early involvement of a sexual assault advocate is vital to the multidisciplinary approach of SART. The protocol used by the SART in this study advised early notification of the sexual assault advocate to provide support to the victim during the initial SART response, and to establish rapport in an effort to encourage ongoing services from the advocacy center. An advocate was identified as having been contacted in 32 cases (39.5%), and was not contacted in 5 cases (6.2%). The data were unknown or missing in 40 cases (49.4%). Given that in almost half of the cases this data was missing, it is difficult to determine how often early advocacy contact is occurring.

Research has shown many benefits of early advocacy involvement in victim well-being. It has proven to be vital to the establishment of mental health treatment for victims, provides the link to follow-up services for victims (Campbell, Patterson, & Lichy, 2005; Littell, 2001; Ericksen et al., 2002; Lewis, DiNitto, Spahr-Nelson, Just, & Campbell-Ruggaard, 2003). The advocates in this study reported having met with victims during the initial SART response in 36 cases (63%), however 17 cases (30%) were identified as

not having early advocacy (Table 11). Advocates identified that in 10 of these cases (58.8%) they were not contacted by law enforcement officers. In the remaining seven cases (41.2%) the victim interview with law enforcement was completed prior to contacting the victim advocate. Data also revealed that none of the victims refused advocacy services during the initial response).

Table 11

*Advocacy Presence During Initial Response*

<i>(n = 81)</i>		
<i>Advocate Present</i>	<i>Frequency</i>	<i>Percentage</i>
Yes	36	63%
No	17	30%

In 45 cases (78.9%) the victims consented to follow-up services with the advocacy center. In only one case (1.8%) the victim declined follow-up services. Data were missing for the remaining ten cases (17.5%).

Another important aspect of the multidisciplinary approach to SART is the involvement of SANE in the initial law enforcement interview. This aids in the prevention of secondary victimization and promotes a more positive interaction between the victim and participating community agencies (Campbell et al., 1999; Koss, Bachar, Hopkins, & Carlson, 2004).

In 11 cases (47.8%) SANE was identified as having been involved in the law enforcement interview. Ten cases (43.5%) reported no SANE involvement in the law enforcement interview. In the remaining two cases (8.7%), one was reported as not applicable, and the other was missing. This data provides evidence that continued

improvement is needed in the coordination of law enforcement interviews with other members of SART.

### Chapter Summary

This chapter presented the results of the data collected in this study.

Demographic data regarding the victims of sexual assault, as well as descriptive data of the initial response of the SART were presented. The subjects in this study were predominately females under the age of 18, who were assaulted by perpetrators known to them. The majority of these victims reported to a SART agency within 96 hours of the assault.

Much of the data regarding victim use of alcohol or other drugs, and victims in underserved populations were missing, thus raising questions as to the accuracy of the data obtained. The majority of the victims of sexual assault in this study agreed to law enforcement involvement in their case. Unfortunately, more than one-third of the time advocacy was not involved in the initial response of the SART to provide beneficial support to the victim.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

In this chapter, a summary of this research study that examined the effectiveness of a Midwestern SART in initial response to victims of sexual assault is presented. The following is a discussion of the research conclusions and implications for nursing practice. An evaluation of the study limitations and further recommendations will be included.

#### Summary

Sexual assault is a significant community problem, and the survivors of this crime often suffer harmful consequences to their health and well-being (Brener et al., 1999; CDC, 2007; Hankin et al., 1999; Koss et al., 1991; Plichta & Falik, 2001; Ullman & Brecklin, 2003; Tjaden & Thoennes, 2006). Community services for these victims have long been in effect, but have been difficult to access and are fragmented (Ahrens et al., 2000). This has resulted in poor provision of services and impedance of the recovery process for sexual assault victims. The SART model was developed out of this need to provide specialized services to victims of this crime (Ledray, 1999). Conducting evaluations of SART implementation are vital to the success of such programs, and offer an opportunity to assess the effectiveness of interventions.

An investigator-developed data collection tool was utilized to collect the data for this pilot study. Descriptive data were collected by law enforcement and SANE from a records review to elicit information regarding the effectiveness of the initial response of a

SART to victims of sexual assault. Also included in this study was data collected from victim advocates who provided support and counseling for the victims of sexual assault. Frequencies and percentages were used to describe study findings.

Neuman's System Model (1972) was used as a framework for this study. Neuman and Fawcett (2002) described the movement away from health as occurring when an individual's normal coping mechanisms become overwhelmed. This movement away from wellness occurs as a result of an invasion in their normal line of defense. SART attempts to assist the victim in returning to a state of wellness by providing intervention and support after a sexual assault has occurred.

The demographic data in this study was similar to data found in the literature in regards to victim age, gender, and relationship to the perpetrator. The majority of the time SART agencies properly identified victims that met the criteria for a SANE exam, thus enabling them to receive available SANE services if desired. Large portions of data were missing regarding the identification of victim use of alcohol or other drugs during the time of the assault, and victims belonging to underserved populations. Accurate data collection in these areas is necessary to fully evaluate the effectiveness of the SART initial response.

### Conclusions

In evaluating the results of this study, the following conclusions can be drawn:

1. The majority of victims of sexual assault are receiving services from SANE, advocacy, and law enforcement during the initial response of the SART.

2. Data regarding underserved populations and victims under the influence of alcohol or other drugs could not be accurately analyzed given the large amount of missing data.
3. The majority of victims consented to advocacy follow-up.
4. The majority of victims consented to law enforcement involvement in their case.
5. Continued evaluation of the effectiveness of SART in initial response is needed to further delineate areas for improvement.
6. Further discussions should occur with Human Services, as no data was collected from that agency.

#### Limitations

There were several limitations in this study. This sample was taken from victims that were referred to a SART agency and may not accurately represent victims of sexual assault who choose not to report. The sample size in this study was small (n=81), and all available data on each victim was not collected by all agencies involved in SART. A large amount of data was incomplete. No information was available from Human Services, thus making an evaluation of their participation impossible. The data collection tool utilized was not reviewed by any other area SART programs decreasing its validity.

#### Implications for Nursing Practice

Holistic patient care is a foundation of nursing practice. Given the pervasiveness of sexual assault, it is very likely that nurse practitioners will see victims of this crime on a regular basis in primary care. Nurse practitioners in primary care may be the first

professional sought out by a victim of assault. They may also see victims for follow-up care, and likely see many victims who have not reported their assault. For these reasons, it is imperative that nurse practitioners are aware of the services available to victims of sexual assault so they can arrange for appropriate referrals to community agencies. Proper identification and referral of these victims to community agencies equipped to care for them can assist in moving victims closer to a state of health and wellness.

#### Recommendations for Further Research

This small pilot study provides the preliminary information necessary to continue evaluating the effectiveness of the initial response of the SART in this Midwestern County. Further data collection with a larger sample size will be necessary to perform an adequate evaluation of the effectiveness of this SART. Education regarding the importance of completing the data collection tool should be provided to the SART agency personnel involved in the data collection, with emphasis on identification of underserved populations and victim use of alcohol or other drugs. An evaluation of this data collection tool by SARTs in other counties may prove helpful and aid in validating the tool. Finally, the absence of human services participation in this study should be further investigated.

It may be beneficial to include victim perceptions of care during the initial response to sexual assault in future studies, particularly as they relate to law enforcement. Further study should also include judicial outcomes and sentencing to fully evaluate all aspects of this model.

APPENDIX A  
Data Collection Tool

### BROWN COUNTY SAC S.A.R.T. SYSTEM CONSULTATION FORM

SAC case# \_\_\_\_\_ Date of response: \_\_\_\_\_ L.E Agency \_\_\_\_\_ L.E case # \_\_\_\_\_  
 Time of Response: \_\_\_\_\_ Victim Initials \_\_\_\_\_ Victim Age: \_\_\_\_\_ Victim Gender:  Male  Female

	Yes	No	N/A	UNK	Comments
<b>INITIAL CONTACT</b>					
Was case a SART referral					
If yes, referred from: <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Human Services <input type="checkbox"/> Med/SANE					
<b>Assault reported:</b>					
<input type="checkbox"/> within 24 hours <input type="checkbox"/> >24 but <96 hours <input type="checkbox"/> >96 hour but < 1 year <input type="checkbox"/> > 1 year					
<b>Victim relationship to offender:</b>					
<input type="checkbox"/> Spouse/partner <input type="checkbox"/> Family <input type="checkbox"/> Acquaintance <input type="checkbox"/> Stranger <input type="checkbox"/> Other					
<b>Race:</b>					
<input type="checkbox"/> Hispanic <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> African American <input type="checkbox"/> Caucasian <input type="checkbox"/> Other					
<b>Underserved population:</b>					
<input type="checkbox"/> Elderly <input type="checkbox"/> Disability <input type="checkbox"/> LGBTQ <input type="checkbox"/> Incarcerated <input type="checkbox"/> Other					
Underserved needs communicated to SAC by other SART					
CPS contacted if under 18 years of age					
Contacted APS if adult at risk					
Advocate met with victim in person during initial SART response					
Reason for SAC not having contact with victim: <input type="checkbox"/> L.E did not contact SAC					
<input type="checkbox"/> Interview completed prior to SAC being contacted <input type="checkbox"/> Victim refused SAC					
<input type="checkbox"/> SAC supported secondary victim <input type="checkbox"/> Other					
Victim consented to SAC follow-up					
<b>L.E CONTACT</b>					
Victim consented to Law Enforcement involvement					
If yes, please complete the following section:					
L.E. contacted by: <input type="checkbox"/> Victim <input type="checkbox"/> SAC <input type="checkbox"/> SANE <input type="checkbox"/> Other					
Advocate present in interview					
Reason for SAC not present in interview: <input type="checkbox"/> L.E refused <input type="checkbox"/> Victim refused					
<input type="checkbox"/> Interview completed prior to SAC <input type="checkbox"/> Supported secondary victim <input type="checkbox"/> Other					
<b>SANE</b>					
Met criteria for SANE – assault within 96 hours or injuries visible					
If yes, was SANE contacted by <input type="checkbox"/> Victim <input type="checkbox"/> SAC <input type="checkbox"/> L.E <input type="checkbox"/> Other					
<b>Is this case recommended for S.A.R.T. System Review?</b>					
<b>Is this case referred to the DA's office?</b>					
Comments:					

Person Completing form: \_\_\_\_\_ Date: \_\_\_\_\_

**BROWN COUNTY SAC S.A.R.T. SYSTEM CONSULTATION FORM**

SAC case# \_\_\_\_\_ Date of response: \_\_\_\_\_ L.E Agency \_\_\_\_\_ L.E case # \_\_\_\_\_  
 Time of Response: \_\_\_\_\_ Victim Initials \_\_\_\_\_ Victim Age: \_\_\_\_\_ Victim Gender:  Male  Female

	Yes	No	N/A	UNK	Comments
<b>INITIAL CONTACT</b>					
Was case a SART referral If yes, referred from: <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Human Services <input type="checkbox"/> Med/SANE					
<b>Assault reported:</b> <input type="checkbox"/> within 24 hours <input type="checkbox"/> >24 but <96 hours <input type="checkbox"/> >96 hour but < 1 year <input type="checkbox"/> > 1 year					
<b>Victim relationship to offender:</b> <input type="checkbox"/> Spouse/partner <input type="checkbox"/> Family <input type="checkbox"/> Acquaintance <input type="checkbox"/> Stranger <input type="checkbox"/> Other					
<b>Race:</b> <input type="checkbox"/> Hispanic <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> African American <input type="checkbox"/> Caucasian <input type="checkbox"/> Other					
<b>Underserved population:</b> <input type="checkbox"/> Elderly <input type="checkbox"/> Disability <input type="checkbox"/> LGBTQ <input type="checkbox"/> Incarcerated <input type="checkbox"/> Other					
Underserved needs communicated to SAC by other SART					
CPS contacted if under 18 years of age					
Contacted APS if adult at risk					
Advocate met with victim in person during initial SART response					
Reason for SAC not having contact with victim: <input type="checkbox"/> L.E did not contact SAC					
<input type="checkbox"/> Interview completed prior to SAC being contacted <input type="checkbox"/> Victim refused SAC					
<input type="checkbox"/> SAC supported secondary victim <input type="checkbox"/> Other					
Victim consented to SAC follow-up					
<b>L.E CONTACT</b>					
Victim consented to Law Enforcement involvement					
If yes, please complete the following section:					
L.E. contacted by: <input type="checkbox"/> Victim <input type="checkbox"/> SAC <input type="checkbox"/> SANE <input type="checkbox"/> Other					
Advocate present in interview					
Reason for SAC not present in interview: <input type="checkbox"/> L.E refused <input type="checkbox"/> Victim refused					
<input type="checkbox"/> Interview completed prior to SAC <input type="checkbox"/> Supported secondary victim <input type="checkbox"/> Other					
<b>SANE</b>					
Met criteria for SANE – assault within 96 hours or injuries visible					
If yes, was SANE contacted by <input type="checkbox"/> Victim <input type="checkbox"/> SAC <input type="checkbox"/> L.E <input type="checkbox"/> Other					
<b>Is this case recommended for S.A.R.T System Review?</b>					
<b>Is this case referred to the DA's office?</b>					
Comments:					

Person Completing form: \_\_\_\_\_ Date: \_\_\_\_\_

**BROWN COUNTY SANE S.A.R.T. SYSTEM CONSULTATION FORM**

MR# \_\_\_\_\_ Date of response: \_\_\_\_\_ L.E Agency \_\_\_\_\_ L.E Case # \_\_\_\_\_

Victim Initials \_\_\_\_\_ Victim Age: \_\_\_\_\_ Victim Gender:  Male  Female

	YES	NO	N/A	UNK	COMMENTS
<b>INITIAL CONTACT</b>					
Was case a SART referral					
If yes, referred from: <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Human Services <input type="checkbox"/> SAC					
<b>Assault reported:</b>					
<input type="checkbox"/> within 24 hours <input type="checkbox"/> >24 but <96 hours <input type="checkbox"/> >96 hour but < 1 year <input type="checkbox"/> > 1 year					
Victim consented to Law Enforcement involvement					
SANE contact Law Enforcement					
SANE contact Sexual Assault Center (SAC) Advocate					
SANE contacted CPS					
SANE requested immediate response from CPS					
<b>VICTIM</b>					
<b>Race:</b>					
<input type="checkbox"/> Hispanic <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> African American <input type="checkbox"/> Caucasian <input type="checkbox"/> Other					
<b>Underserved population:</b>					
<input type="checkbox"/> Disability <input type="checkbox"/> LGBTQ <input type="checkbox"/> Incarcerated <input type="checkbox"/> Other					
<b>Victim relationship to offender:</b>					
<input type="checkbox"/> Spouse/partner <input type="checkbox"/> Family <input type="checkbox"/> Acquaintance <input type="checkbox"/> Stranger <input type="checkbox"/> Other					
Intoxicated or under the influence of drugs at the time of the assault					
Exam recommended by SANE					
Consent obtained for exam					
SANE involved in Law Enforcement interview					
SANE completed without Law Enforcement involvement					
<b>Is this case recommended for S.A.R.T. System Review?</b>					

**Comments:**

Person Completing form: \_\_\_\_\_ Date: \_\_\_\_\_

**BROWN COUNTY HUMAN SERVICES S.A.R.T. SYSTEM CONSULTATION FORM**

BCHS case# \_\_\_\_\_ Date of response: \_\_\_\_\_ L.E case # (if known) \_\_\_\_\_

Victim Initials \_\_\_\_\_ Victim Age: \_\_\_\_\_ Victim Gender:  Male  Female

	YES	NO	N/A	UNK
BCHS jurisdiction established				
CPS report required immediate to same day response				
CPS report required response within 24-48 hours				
CPS report required response within 5 working days				
CPS-Non care giver no response required				
Did the assault occur in Brown County				
SAC Advocate contacted by Human Services				
Referred from: <input type="checkbox"/> SAC <input type="checkbox"/> SANE <input type="checkbox"/> Police <input type="checkbox"/> School <input type="checkbox"/> Other				
<b>Race:</b> <input type="checkbox"/> Hispanic <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> African American <input type="checkbox"/> Caucasian <input type="checkbox"/> Other Victim disclosed sexual abuse				
<b>INTERVIEW</b>				
Human Services request joint interview with Law Enforcement				
Law Enforcement present in interview:				
SAC Advocate present in interview				
SANE present in interview				
Does this case require follow up investigation? Is this case recommended for S.A.R.T System Review ?				

Comments:

Person Completing form: \_\_\_\_\_ Date: \_\_\_\_\_

APPENDIX B

UW Oshkosh IRB Approval Letter



December 8, 2008

Ms. Amber Geocaris  
3989 N. River Rd.  
Oconto, WI 54153

Dear Ms. Geocaris:

On behalf of the UW Oshkosh Institutional Review Board for Protection of Human Participants (IRB), I am pleased to inform you that your application has been approved for the following research: The Effectiveness of a Midwestern Sexual Assault Response Team in Initial Response to Sexual Assault Victims.

Your research has been categorized as EXEMPT. This means you will not be required to obtain signed consent. However, unless your research involves **only** the collection or study of existing data, documents, or records, you must provide each participant with a summary of your research that contains all of the elements of an Informed Consent document, as described in the IRB application material. Permitting the participant, or parent/legal representative, to make a fully informed decision to participate in a research activity avoids potentially inequitable or coercive conditions of human participation and assures the voluntary nature of participant involvement.

Please note that it is the principal investigator's responsibility to promptly report to the IRB Committee any changes in the research project, whether these changes occur prior to undertaking, or during the research. In addition, if harm or discomfort to anyone becomes apparent during the research, the principal investigator must contact the IRB Committee Chairperson. Harm or discomfort includes, but is not limited to, adverse reactions to psychology experiments, biologics, radioisotopes, labeled drugs, or to medical or other devices used. Please contact me if you have any questions (PH# 920/424-7172 or e-mail:rauscher@uwosh.edu).

Sincerely,



Dr. Frances Rauscher  
IRB Chair

cc: Vicki Moss  
1481

INSTITUTIONAL REVIEW BOARD  
UNIVERSITY OF WISCONSIN OSHKOSH • 800 ALGOMA BLVD • OSHKOSH WI 54901  
(920) 424-3215 • FAX (920) 424-3221

An Equal Opportunity/Affirmative Action Institution • <http://www.uwosh.edu/>

APPENDIX C

Request for Participation and Consent

Dear SART Chairpersons:

My name is Amber Geocaris, and I am currently a graduate nursing student at the University of Wisconsin Oshkosh, and a practicing SANE nurse at St. Vincent's Hospital. As part of my course requirements, I am working on a clinical research project. I have chosen my area of interest to be that of SART effectiveness.

In conjunction with Sam McKenzie and Al Van Haute, a data collection tool has been developed to assess the effectiveness of the Brown County SART in initial response to sexual assault. A pilot test of the data collection tool will be done prior to utilizing it for my proposed study, to establish reliability and validity. Quantitative data will be collected by key members of the SART team for analysis in this study. The data will be provided to me anonymously, and for confidentiality, I will be reporting the results in my clinical paper in an aggregate form and as a report coming from a Midwestern county SART.

Permission to conduct this study will be sought from the University of Wisconsin Oshkosh Institutional Review Board (IRB) for the Protection of Human Participants. A copy of the IRB letter will be provided to you when available.

I am estimating that data collection will begin in October 2008 and will continue through February 2009. A power analysis will be performed to confirm sample size once the tool has been pilot tested; however, I am estimating that approximately 75 cases before SART initiation and 75 cases after SART initiation will be needed for statistical significance. I plan to have the study completed by March 2009, and will provide the SART team with a copy of my completed clinical paper.

I am requesting your signature on the attached form to indicate permission to conduct this study.

It is my hope that the results of this study will provide data to support current practices and identify areas of improvement in the care of victims of sexual assault. Please feel free to contact me with any questions. You may also contact the IRB at the University of Wisconsin Oshkosh with any questions or concerns.

Sincerely,

Amber Geocaris, RN, BSN  
920 835-1536  
[geocaa11@uwosh.edu](mailto:geocaa11@uwosh.edu)

Chair, Institutional Review Board  
for Protection of Human Participants  
c/o Grants Office  
UW Oshkosh  
800 Algoma Blvd.  
Oshkosh, WI 54901  
(920) 424-1415

I have received an explanation of the study: The Effectiveness of a Midwestern Sexual Assault Response Team in Initial Response to Sexual Assault Victims, as outlined in the attached letter of intent, and give my permission for the data collection.

---

Name/Title/Agency	Signature	Date
-------------------	-----------	------

---

Name/Title/Agency	Signature	Date
-------------------	-----------	------

---

Name/Title/Agency	Signature	Date
-------------------	-----------	------

---

Name/Title/Agency	Signature	Date
-------------------	-----------	------

## REFERENCES

- Ahrens, C. E., Campbell, R., Wasco, S. M., Aponte, G., Grubstein, L., & Davidson, W. S. (2000, September). Sexual assault nurse examiner (SANE) programs: Alternative systems for service delivery for sexual assault victims. *Journal of Interpersonal Violence, 15*(9), 921-943.
- Baumer, E. P., Felson, R. B., & Messner, S. F. (2003). Changes in police notification for rape, 1973-2000. *Criminology, 41*(3), 841-872.
- Brener, N. D., McMahon, P. M., Warren, C. W., & Douglas, K. A. (1999). Forced sexual intercourse and associated health-risk behaviors among female college students in the United States. *Journal of Consulting and Clinical Psychology, 67*(2), 252-259.
- Burgess, A. W., Lewis-O'Connor, A., Nugent-Borakove, M. E., & Fanflik, P. (2006). SANE/SART services for sexual assault victims: Policy implications. *Victims and Offenders, 1*, 205-212.
- Campbell, R. (1998). The community response to rape: Victims' experiences with the legal, medical, and mental health systems. *American Journal of Community Psychology, 26*(3), 355-379.
- Campbell, R., & Ahrens, C. E. (1998). Innovative community services for rape victims: An application of multiple case study methodology. *American Journal of Community Psychology, 26*(4), 537-571.
- Campbell, R., & Bybee, D. (1997). Emergency medical services for rape victims: detecting the cracks in service delivery. *Women's Health: Research on Gender, Behavior, and Policy, 3*(2), 75-101.

- Campbell, R., & Johnson, C. J. (1997). Police officer's perception of rape: Is there a consistency between state law and individual beliefs? *Journal of Interpersonal Violence, 12*(2), 255-274.
- Campbell, R., Lichty, L. F., Sturza, M., & Raja, S. (2006). Gynecological health impact of sexual assault. *Research in Nursing & Health, 29*, 399-413.
- Campbell, R., Patterson, D., & Lichty, L. F. (2005, October). The effectiveness of sexual assault nurse examiner (SANE) programs: A review of psychological, medical, legal, and community outcomes. *Trauma, Violence, & Abuse, 6*(4), 313-329.
- Campbell, R., Patterson, D., Adams, A. E., Diegel, R., & Coats, S. (2008). A participatory evaluation project to measure SANE nursing practice and adult sexual assault patients' psychological well-being. *Journal of Forensic Nursing, 4*, 19-28.
- Campbell, R., Sefl, T., Barnes, H. E., Ahrens, C. E., Wasco, S. M., & Zaragoza-Diesfeld, Y. (1999). Community services for rape survivors: Enhancing psychological well-being or increasing trauma? *Journal of Consulting and Clinical Psychology, 67*(6), 847-858.
- Campbell, R., Wasco, S. M., Ahrens, C. E., Sefl, T., & Barnes, H. E. (2001, December). Preventing the "second rape": Rape survivors' experiences with community service providers. *Journal of Interpersonal Violence, 16*(12), 1239-1259.
- Centers for Disease Control and Prevention. (2007). *Understanding sexual violence* [Fact sheet]. Retrieved from <http://www.cdc.gov/ncipc/publications/images/SV%20Factsheet.pdf>
- Ciancone, A., Wilson, C., Collette, R., & Gerson, L. W. (2002). Sexual assault nurse examiner programs in the United States. *Annals of Emergency Medicine, 35*(4), 353-357.

- Crandall, C. S., & Helitzer, D. (2003, December). *Impact evaluation of a sexual assault nurse examiner (SANE) program* (NCJRS 203276). Retrieved from National Criminal Justice Reference Service:  
<http://www.ncjrs.gov/pdffiles1/nij/grants/203276.pdf>
- Davis, R. C., Brickman, E., & Baker, T. (1991). Supportive and unsupportive responses of others to rape victims: Effects on concurrent victim adjustment. *American Journal of Community Psychology*, 19(3), 443-451.
- Ericksen, J., Dudley, C., McIntosh, G., Ritch, L., Shumay, S., & Simpson, M. (2002). Clients' experiences with a specialized sexual assault service. *Journal of Emergency Nursing*, 28, 86-90.
- Foa, E. B., Rothbaum, B. O., Riggs, D. S., & Murdock, T. B. (1991). Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. *Journal of Consulting and Clinical Psychology*, 59(5), 715-723.
- Fulginiti, T. P., Seibert, E., Firth, V., Quattrone, J., Harner, L., & Webb, J. et al. (1996, October). A SANE experience in a community hospital: Doylestown's first six months. *Journal of Emergency Nursing*, 22(5), 422-425.
- Girardin, B. W. (2005, June). The sexual assault nurse examiner: A win-win solution. *Topics in Emergency Medicine*, 27(2), 124-131.
- Golding, J. M., Siegel, J. M., Sorenson, S. B., Burnam, M. A., & Stein, J. A. (1989, January). Social support sources following sexual assault. *Journal of Community Psychology*, 17, 92-107.

- Hankin, C. S., Skinner, K. M., Sullivan, L. M., Miller, D. R., Frayne, S., & Tripp, T. J. (1999). Prevalence of depressive and alcohol abuse symptoms among women VA outpatients who report experiencing sexual assault while in the military. *Journal of Traumatic Stress, 12*(4), 601-612.
- Hatmaker, D. D., Pinholster, L., & Saye, J. J. (2002). A community-based approach to sexual assault. *Public Health Nursing, 19*(2), 124-127.
- Hutson, L. A. (2002, March). Development of sexual assault nurse examiner programs. *Nursing Clinics of North America, 37*(1), 79-88.
- Johnston, B. J. (2005, Fall). Outcome indicators for sexual assault victims. *Journal of Forensic Nursing, 1*(3), 118-132.
- Kerstetter, W. A. (1990). Gateway to justice: Police and prosecutorial response to sexual assaults against women. *The Journal of Criminal Law & Criminology, 81*(2), 267-313.
- Koss, M. P., Bachar, K. J., Hopkins, C. Q., & Carlson, C. (2004, December). Expanding a community's justice response to sex crimes through advocacy, prosecutorial, and public health collaboration. *Journal of Interpersonal Violence, 19*(12), 1435-1463.
- Koss, M. P., Koss, P. G., & Woodruff, W. J. (1991, February). Deleterious effects of criminal victimization of women's health and medical utilization. *Archives of Internal Medicine, 151*, 342-347.
- Ledray, L. (1992). The sexual assault nurse clinician: Minneapolis' 15 years experience. *Journal of Emergency Nursing, 18*(3), 217-221.

- Ledray, L. E. (1999). *Sexual assault nurse examiner development and operation guide* [White paper]. Retrieved from U.S. Department of Justice, Office of Justice Programs: <http://www.ojp.usdoj.gov/ovc/publications/infores/sane/saneguide.pdf>
- Lewis, C. M., DiNitto, D., Spahr-Nelson, T., Just, M. M., & Campbell-Ruggaard, J. (2003, January). Evaluation of a rape protocol: A five year follow-up with nurse managers. *Journal of the American Academy of Nurse Practitioners*, 15(1), 34-39.
- Littel, K. (2001, April). *Sexual assault nurse examiner (SANE) programs: Improving the community response to sexual assault victims* [White paper]. Retrieved from U.S. Department of Justice, Office of Justice Programs: [http://www.ojp.usdoj.gov/ovc/publications/bulletins/sane\\_4\\_2001/186366.pdf](http://www.ojp.usdoj.gov/ovc/publications/bulletins/sane_4_2001/186366.pdf)
- Lonsway, K. A., Welch, S., & Fitzgerald, L. F. (2001, December). Police training in sexual assault response: Process, outcomes and elements of change. *Criminal Justice and Behavior*, 28(6), 695-730.
- Melton, L., Secret, J., Chien, A., & Andersen, B. (2001, April). A community needs assessment for a SANE program using Neuman's Model. *Journal of the American Academy of Nurse Practitioners*, 13(4), 178-186.
- Neuman Systems Model Trustee Group, Inc. (2005). *NSM Powerpoint Overview*. Retrieved July 30, 2008, from [http://neumansystemsmode.org/NSMdocs/nsm\\_powerpoint\\_overview.htm](http://neumansystemsmode.org/NSMdocs/nsm_powerpoint_overview.htm)
- Neuman, B. M. (1972). A model for teaching total person approach to patient problems. *Nursing Research*, 21(3), 264-269.
- Neuman, B., & Fawcett, J. (2002). *The Neuman Systems Model* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

- Neuman, B., & Young, R. J. (1972, May/June). A model for teaching total person approach to patient problems. *Nursing Research*, 21(3), 264-269.
- Nugent-Borakove, M. E., Fanflik, P., Troutman, D., Johnson, N., Burgess, A., & O'Connor, A. L. (2006, May). *Testing the efficacy of SANE/SART programs? Do they make a difference in sexual assault and prosecution outcomes?* (NCJRS 214252). Retrieved from National Criminal Justice Reference Service: <http://www.ncjrs.gov/pdffiles1/nij/grants/214252.pdf>
- Petersilia, J. R. (2001). Crime victims with disabilities: a review essay. *Criminal Justice & Behavior*, 28(6), 655-694.
- Plichta, S. B., & Falik, M. (2001, May/June). Prevalence of violence and its implications for women's health. *Women's Health Issues*, 11(3), 244-258
- Plichta, S. B., Vandecar-Burdin, T., Odor, R. K., Reams, S., & Zhang, Y. (2006, Winter). The emergency department and victims of sexual violence: An assessment of preparedness to help. *Journal of Health & Human Services Administration*, 29(3), 285-308.
- Rape, Abuse, and Incest National Network. (2008). *Statistics* [Fact sheet]. Retrieved from <http://www.rainn.org/statistics>
- Rennison, C. M. (2002, August). *Rape and sexual assault: Reporting to police and medical attention, 1992-2000* [White paper]. Retrieved from U.S. Department of Justice, Office of Justice Programs: <http://www.ojp.usdoj.gov/bjs/pub/pdf/rsarp00.pdf>
- Roe, K. J. (2004). *The Violence Against Women Act and its impact on sexual violence public policy: Looking back and looking forward*. Retrieved August 1, 2008, from <http://www/nrcdv.org/docs/Mailings/2004/NRCDVNovVAWA.pdf>

- Sexual Assault Center. (n.d.). *Sexual Assault Center* [Brochure]. Retrieved from <http://www.familyservicesnew.org/sac/brochure-eng.pdf>
- Sklar, K. K., & Lustig, S. (2001). *How have recent social movements shaped civil rights legislation for women? The 1994 Violence Against Women Act*. Retrieved July 17, 2008, from <http://www.womnhist.alexanderstreet.com/vawa/intro.htm>
- Snyder, H. N. (2000, July). *Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics* [White paper]. Retrieved from U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: <http://www.ojp.usdoj.gov/bjs/pub/pdf/saycrle.pdf>
- Starzynski, L. L., Ullman, S. E., Filipas, H. H., & Townsend, S. M. (2005, August). Correlates of women's sexual assault disclosure to informal and formal support sources. *Violence and Victims*, 20(4), 417-432.
- Straight, J. D., & Heaton, P. C. (2007, September 1). Emergency department care for victims of sexual offense. *American Journal of Health-System Pharmacy*, 64(), 1845-1850.
- Tjaden, P., & Thoennes, N. (2006). *Extent, nature and consequences of rape victimization: Findings from the National Violence against Women Survey* [White paper]. Retrieved from National Criminal Justice Reference Service Web site: <http://www.ncjrs.gov/pdffiles1/nij/210346.pdf>
- Ullman, S. E., & Brecklin, L. R. (2003). Sexual assault history and health-related outcomes in a national sample of women. *Psychology of Women Quarterly*, 27(1), 46-57.
- U.S. Census Bureau. (2006). *State & County QuickFacts* [Fact sheet]. Retrieved from <http://quickfacts.census.gov/qfd/states/55/55009.html>

- U.S. Department of Justice Office on Violence Against Women (2004, September). *National protocol for sexual assault medical forensic examinations: Adults/Adolescents* (NCJ 206554). Retrieved from National Criminal Justice Reference Service: <http://www.ncjrs.gov/pdffiles1/ovw/206554.pdf>.
- U.S. Department of Justice Office on Violence Against Women. (n.d.). *The Facts about the Violence Against Women Act* [Fact sheet]. Retrieved from <http://www.ovw.usdoj.gov/ovw-fs.htm#fs-act>
- U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics (2008, August). *Criminal victimization in the United States, 2006 statistical tables* (NCJ 223436). Retrieved from Bureau of Justice Statistics: <http://www.ojp.usdoj.gov/bjs/pub/pdf/cvus0602.pdf>.
- Wilson, D., & Klein, A. (2005, July). *An evaluation of the Rhode Island Sexual Assault Response Team (SART)* (NCJRS 210584). Retrieved from National Criminal Justice Reference Service: <http://www.ncjrs.gov/pdffiles1/nij/grants/210584.pdf>.
- Wisconsin Coalition Against Sexual Assault. (2003a). *Lesbian, gay, bi-sexual, transgendered (LGBT) populations and sexual assault* [Fact sheet]. Retrieved from <http://www.wcasa.org/docs/lesbigay.pdf>.
- Wisconsin Coalition Against Sexual Assault. (2003b). *People with disabilities and sexual assault* [Fact sheet]. Retrieved from <http://www.wcasa.org/info/factsheets/disabfact.htm>.
- Wisconsin Coalition Against Sexual Assault. (2006). *Sexual assault laws statutory language* [Fact sheet]. Retrieved from <http://www.wcasa.org/docs/Sexual%20Assault%20Laws%20Statutory%20Language05.06.06.pdf>.

Wisconsin Coalition Against Sexual Assault. (2007). *Sexual violence and substance abuse* [Fact sheet]. Retrieved from <http://www.wcasa.org/info/factsheets/subabuse.htm>.