

# Design, Implementation, and Initial Results from the Women's Health Study

Keku A<sup>1,2</sup>, Battles S<sup>1,2</sup>, Liu AY<sup>1,2</sup>, Soward A<sup>1,2</sup>, D'anza T<sup>3</sup>, Bell K<sup>5</sup>, Galloway L<sup>5</sup>, Nouhan P<sup>6</sup>, Groat J<sup>6</sup>, Gieger-Sedgwick A<sup>7</sup>, Ho J<sup>8</sup>, Jarvis K<sup>8</sup>, McLean SA<sup>1,2,4</sup>

From the <sup>1</sup>TRYUMPH Research Program; <sup>2</sup>Department of Anesthesiology, University of North Carolina, Chapel Hill, NC; <sup>3</sup>SANE Program, Albuquerque SANE Collaborative, Albuquerque, NM; <sup>4</sup>Department of Emergency Medicine, University of North Carolina, Chapel Hill, NC; <sup>5</sup>SANE Program, Tulsa Forensic Nursing Services, Tulsa, OK; <sup>6</sup>SANE Program, Wayne County SAFE, Detroit, MI; <sup>7</sup>SANE Program, Crisis Center of Birmingham, Birmingham, AL; <sup>8</sup>SANE Program, Hennepin County Medical Center, Minneapolis, MN

TRYUMPH Research Program  
UNC Department of Anesthesiology  
Trauma Recovery: Understanding Mechanisms  
& Promoting Healing



## Introduction

- Worldwide, an estimated 10–27% of women are sexually assaulted during their lifetime.<sup>1</sup> In the United States alone, at least 700,000 women ≥ 18 years old are sexually assaulted each year.<sup>2</sup> Rates of sexual assault in some countries are much higher due to lawlessness and/or because repressive governments use sexual assault as a tool of war or political oppression.<sup>3</sup>
- Data from a previous pilot study indicate that acute and chronic musculoskeletal pain, and other adverse health outcomes, are common after sexual assault (SA).<sup>4,5</sup> To date, no large, prospective, multisite studies evaluating the incidence and etiology of pain and other adverse health outcomes after SA have been performed.
- The purpose of this poster is to describe the methods of the ongoing Women's Health Study (R01 AR064700), the first large-scale prospective study of acute and chronic pain after sexual assault, and to share some initial data regarding participant characteristics, acute pain outcomes, and qualitative comments.

## Methods

- When a potentially eligible adult woman sexual assault survivor ≥ 18 years of age presents to a network study site ("Better Tomorrow Network", Figure 1) to receive care from a sexual assault nurse examiner, this nurse pages a research assistant (RA).
- The RA then approaches the survivor for consent to collect blood samples, access medical records related to the assault, and perform a brief pain assessment. This pain evaluation includes an evaluation of pain severity (0-10 NRS) in each of eight body regions.
- The RA also requests permission to contact the survivor in 48-72 hours, to provide information regarding the full study.
- Individuals who are successfully contacted and express interest in the study receive follow-up evaluation at one week, six weeks, six months, and one year (Figure 2). One week evaluation includes an assessment of pain (0-10 NRS) during the week prior to assault.
- Statistical analyses were performed using SPSS. Individuals with an increase in pain in a body region ≥ 2 units compared to the week prior to assault were defined as having clinically significantly worsening pain in that region. Pain severity NRS scores were grouped into the following categories: 1-3 = mild, 4-7 = moderate, 8-10 = severe.



Figure 1. Better Tomorrow Network Sites

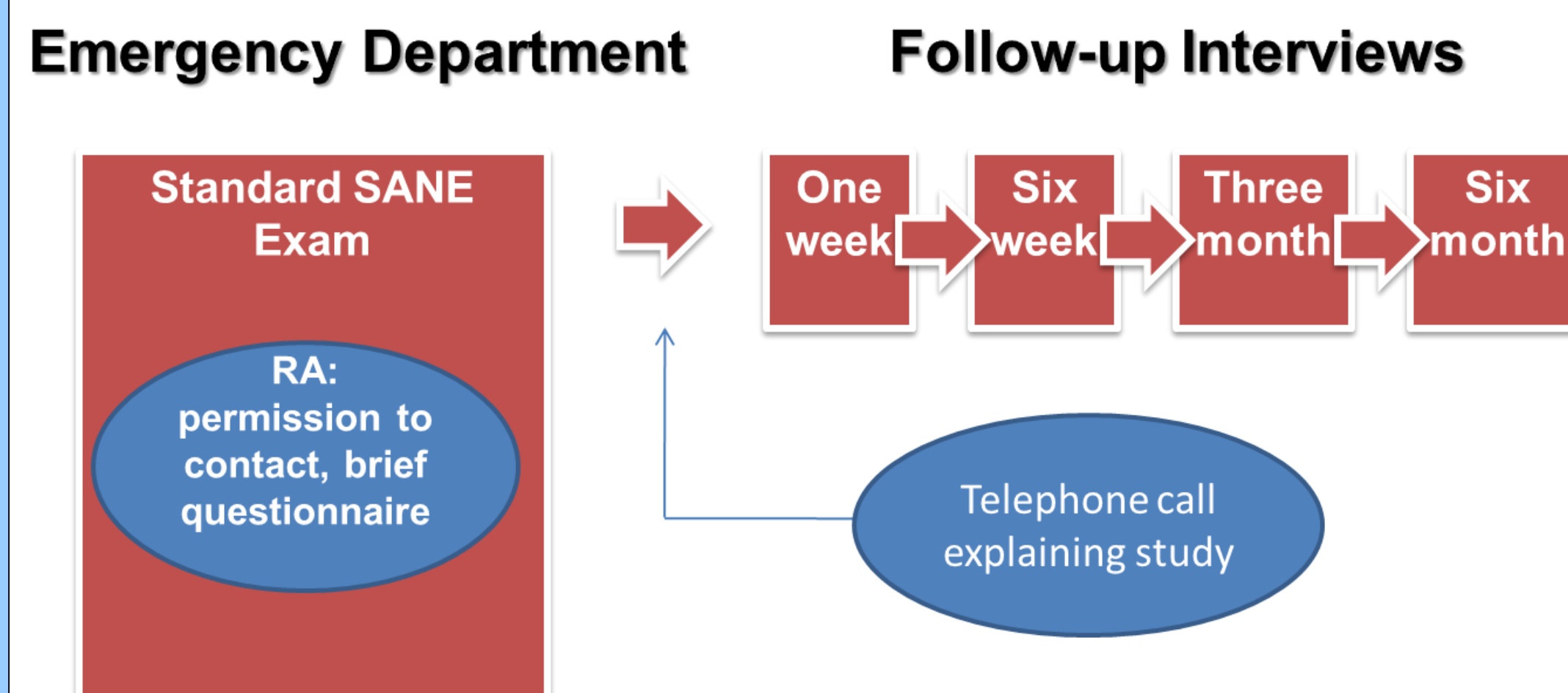


Figure 2. Study Design

Table 1. Selected characteristics of initial sample (n=54)

Age, mean (SD),	28 (9.1)
Ethnicity n (%)	
African American	6 (11)
European American	34 (63)
Mixed/Other	14 (27)
Highest level of education completed n(%)	
8-11 years	2 (4)
12 years or completed	11 (20)
Some college or post high school	26 (48)
College graduate or beyond	13 (24)
Refused	2 (4)
Relationship Status n(%)	
Not in a serious relationship	30 (57)
Serious relationship	9 (24)
Separated/Divorced/Widowed	10 (19)
Number of children n(%)	
None	32 (59)
1-2	10 (19)
3 or more	11 (20)

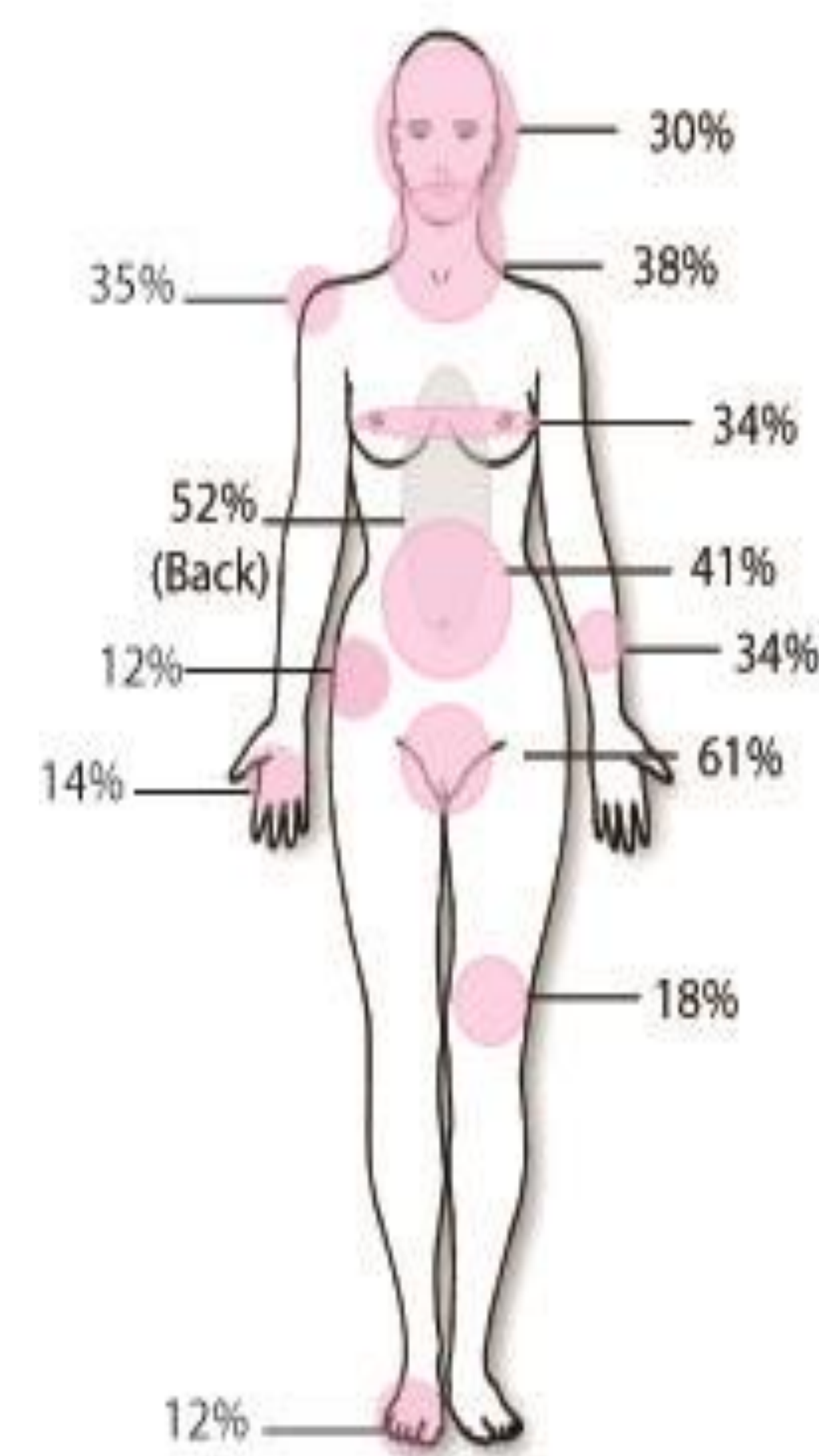


Figure 3. Percent of clinically significant worsening pain according to body region among sexual assault survivors assessed one week after assault.

*"So that people who have or haven't been assaulted all have a good idea of what woman feel inside before and after an assault."*

*"Take control of your life do not let the person who assaulted you take control of your life."*

*"I have a new found strength about myself and although this incident has brought new challenges into my life I am optimistic about my recovery and future."*

Figure 4. Example participant responses.

## Results

- Characteristics of initial participants enrolled are shown in Table 1.
- Sixty three percent of participants knew their assailant. Seventy eight percent experienced penile/vaginal penetration, and fifty nine percent experienced multiple forms of sexual assault.
- At the time of initial presentation, 79% of survivors had moderate or severe pain.
- One week after assault, 71% of survivors had moderate or severe pain.
- Figure 3 displays percentage of participants with clinically significant worsening pain 1 week after assault, according to body region,
- As shown in Figure 3, pain worsening was most common in the pelvic, back, abdominal, and neck areas.
- Example participant qualitative comments are shown in Figure 4.

## Conclusion

- The lack of prospective studies evaluating the incidence and pathogenic mechanisms of adverse health outcomes after sexual assault is directly responsible for the lack of progress in improving the recovery of survivors.
- We have initiated a large-scale prospective study of sexual survivors.
- As with our pilot study results,<sup>4,5</sup> initial data from this study indicate that acute pain is common among survivors.
- This and other studies are needed to improve sexual assault survivor recovery and health outcomes.

## References

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## Funding

Research reported in this publication was supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases of the National Institutes of Health under Award Number R01 AR064700. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.