Linking Leading Sexual Assault Centers into Learning Networks to Improve Sexual Assault Survivor Care and Outcomes.

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Introduction

- Worldwide, an estimated 10–27% of women are sexually assaulted during their lifetime.[1] In the United States alone, at least 700,000 women ≥ 18 years old are sexually assaulted each year.[2]
- Data from a previous pilot study indicate that acute and chronic musculoskeletal pain, and other adverse health outcomes, are common after sexual assault (SA).[3,4] 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 sexual assault survivors, and to share some initial data regarding participant characteristics, survivor experiences, outcome data, 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 (SANE), this nurse pages a research assistant (RA).
- The RA approaches the survivor for consent to contact the participant in 48-72 hours, collect blood samples, access medical records related to the assault, and perform a brief assessment.
- 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. One week evaluation includes an assessment of pain (0-10 NRS) during the week prior to assault. One week assessment also includes a modified Reactions to Research Participation Questionnaire (RRPQ). Six week evaluation includes the validated PROMIS 8b depression and PROMIS 8a anxiety questionnaires.[5]
- 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.
- Anxiety and depressive raw scores were grouped into the following categories, based on PROMIS scoring guidelines: ≤16 = none to slight, 17-21 = mild, 22-31 = moderate, ≥32 = severe.

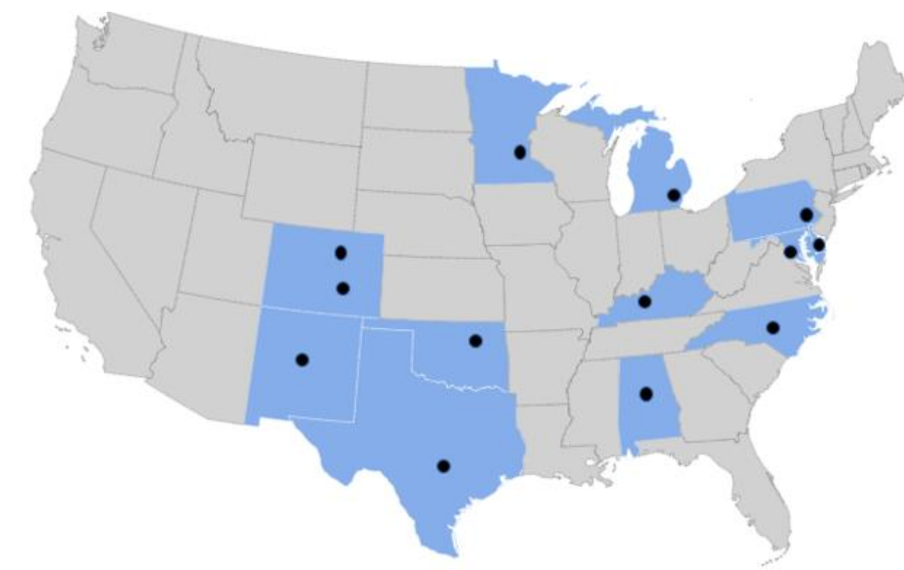

Figure 1. Better Tomorrow Network Sites

Table 1. Selected characteristics to date

Age, mean (SD),	28 (10)
Ethnicity n (%)	
African American	33 (16)
European American	107 (53)
Multi-ethnic/other	91 (41)
Highest level of education completed n(%)	
High school or less	71 (35)
Some college or other training	97 (48)
College graduate or beyond	35 (17)
Relationship Status n(%)	
Not in a serious relationship	116 (57)
Serious relationship	50 (25)
Separated/Divorced/Widowed	37 (18)
Number of children n(%)	
None	109 (53)
1-2	66 (32)
3 or more	29 (14)

Table 2. Survivor experiences with SANE care

94%	Reported that the nurse did not act as if the assault was the participant's fault.
96%	Reported that the nurse explained why each part of the exam was important.
97%	Reported that the nurse or someone else provided information about follow-up medical care.
97%	Reported that the nurse cared and showed compassion.
97%	Reported that the nurse took the participant's needs and concerns seriously.

Table 3. Survivor experiences with law enforcement

81%	Reported that the officer(s) explained what was going to happen next in the reporting, investigation, or prosecution.
83%	Reported that the officer(s) believed the participant.
83%	Reported that the officer(s) asked if the participant had any concerns about her safety.
84%	Reported overall satisfaction in the way the officer(s) treated them.
89%	Reported that the officer(s) took the participant's need and concerns seriously.
89%	Reported that the officer(s) did not blame the participant.
90%	Reported that the officer(s) listened to the participant.
91%	Reported that the officer(s) provided information on how the participant could contact them for further help or information.
93%	Reported that the officer(s) treated the participant with respect.
94%	Reported that the officer(s) asked of the participant had any questions.

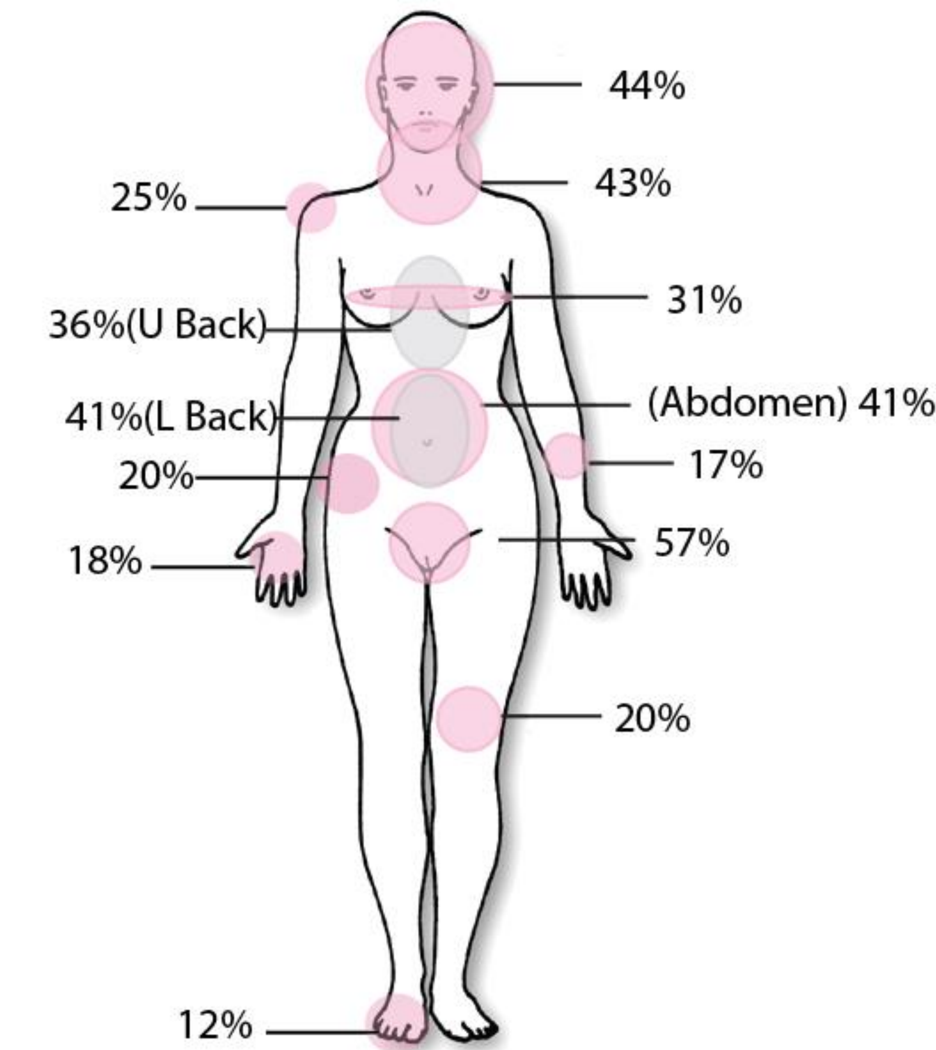

Figure 2. Percent of clinically significant worsening pain according to body region among sexual assault survivors assessed one week after assault.

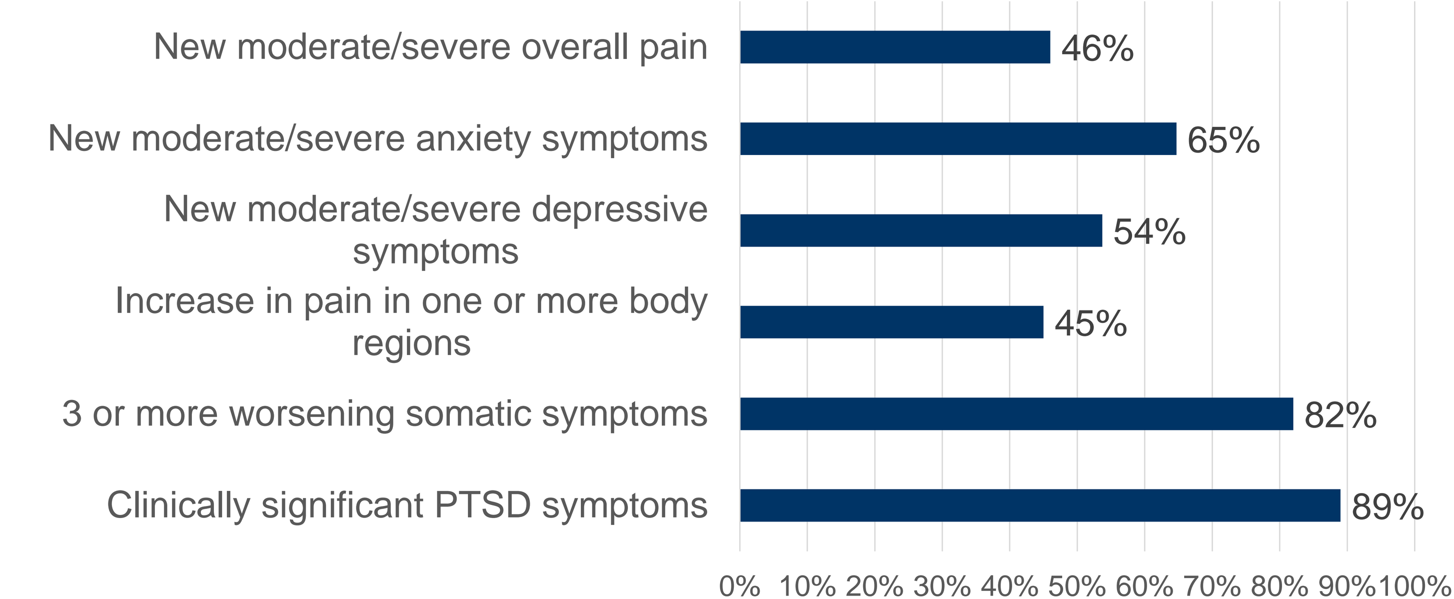

Figure 3. Outcome data six weeks after assault.

"I associate the survey and the support group (TESSA, CSPD, victims advocate) in making the process not only easier but it felt as though I switched from trauma too halfway through a healing process"

"Everyone has different reaction to experiences like this. I'm just happy what I'm doing may be able to positively impact someone who has gone or is going through something similar."

"Before the assault I had problems with anxiety, after the assault they have increased by a lot. However, all of the people helping me with the process have been absolutely amazing and I am so thankful for all of them."

Figure 4. Example participant responses.

Results

- Characteristics of initial participants enrolled are shown in Table 1.
- Sixty nine percent of participants knew their assailant. Sixty three percent experienced penile/vaginal penetration, and fifty nine percent experienced multiple forms of sexual assault.
- Responses to the RRPQ indicated that over ninety five percent of participants gained something positive from participating and felt good about volunteering for the study.
- As shown in Table 2, well over 90% of participants report having positive experiences with the SANE care that they receive.
- As shown in Table 3, over 80% of participants report having positive interactions with law enforcement personnel.
- Figure 2 displays percentage of participants with clinically significant worsening pain 1 week after assault, according to body region.
- As shown in Figure 2, worsening pain was most common in the pelvic, back, abdominal, neck, head and face areas.
- Figure 3 displays the percentage of participants presenting with moderate and severe pain, anxiety, depressive symptoms, worsening pain, worsening somatic symptoms, and PTSD symptoms six weeks after the assault.
- Example responses from participants recruited at UCHealth Memorial Hospital are shown in Figure 4.

Conclusion

- An estimated 633 million women worldwide are sexually assaulted, yet historically no research networks have existed to understand and improve outcomes after sexual assault.
- This and other studies are needed to improve sexual assault survivor recovery and health outcomes.

References

1. García-Moreno, C.; World Health Organization, Department of Gender and Women's Health. (2005). WHO Multi-Country Study on Women's Health and Domestic Violence against Women: Initial Results on Prevalence, Health Outcomes and Women's Responses (Geneva: World Health Organization).
2. Resnick, H.S., Kilpatrick, D.G., Dansky, B.S., Saunders, B.E., Best, C.L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. J Consult Clin Psychol 61, 984–991.
3. Ulirsch JC, Ballina LE, Soward AC, Rossi C, Hauda WE, Holbrook D, Wheeler R, Foley KA, Batts J, Collette R, Goodman E, McLean SA. Pain and somatic symptoms are sequelae of sexual assault: results of a prospective longitudinal study. Eur J Pain. 18(4):559-66, 2014.
4. McLean SA, Soward AC, Ballina LE, Rossi C, Rotolo S, Wheeler R, Foley KA, Batts J, Casto T, Collette R, Holbrook D, Goodman E, Rauch SA, Liberzon I. Acute severe pain is a common consequence of sexual assault. J Pain 13(8):436-41, 2012
5. Pilkonis, Paul A., et al. "Item banks for measuring emotional distress from the Patient-Reported Outcomes Measurement Information System (PROMIS®): depression, anxiety, and anger." *Assessment* 18.3 (2011): 263-283.

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