

# Symposium #23518

## Nursing research on sexual assault: Utilizing data to increase knowledge and improve practice

Three nursing research projects from a large-scale (N=2,350) exploratory, retrospective study on sexual assault will be presented.



# Disclosure

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**No Conflict of Interest to disclose.**



# **A Descriptive Study of 2,300 Sexual Assault Victims: Using Nursing Research to Identify Vulnerabilities and Promote Healthy Communities**

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# Learning Objectives

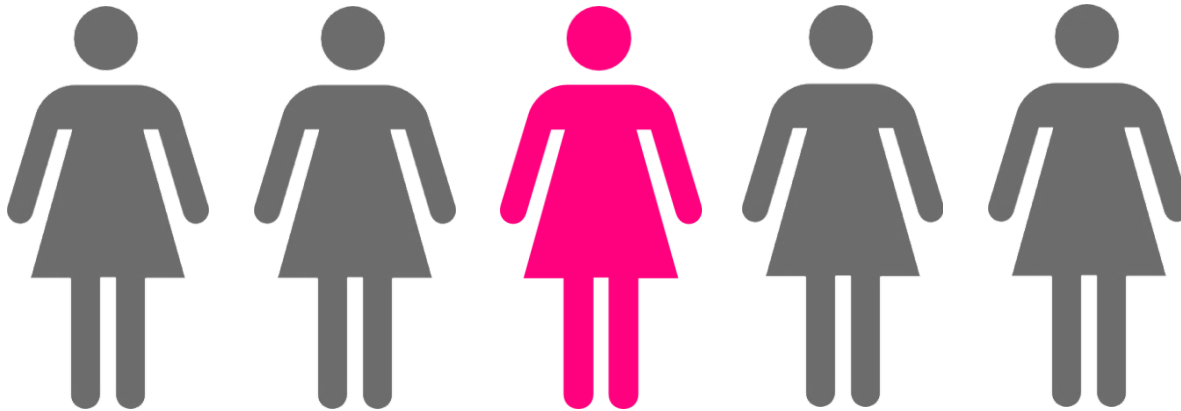
- 1) Describe the research demographics on sexual assault victims including pre-existing physical and mental health illnesses.
- 2) Discuss implications of research findings to develop evidence based practice and community prevention strategies.



# Significance

- Nearly 1 in 5 women in the United States report being raped sometime in their lives

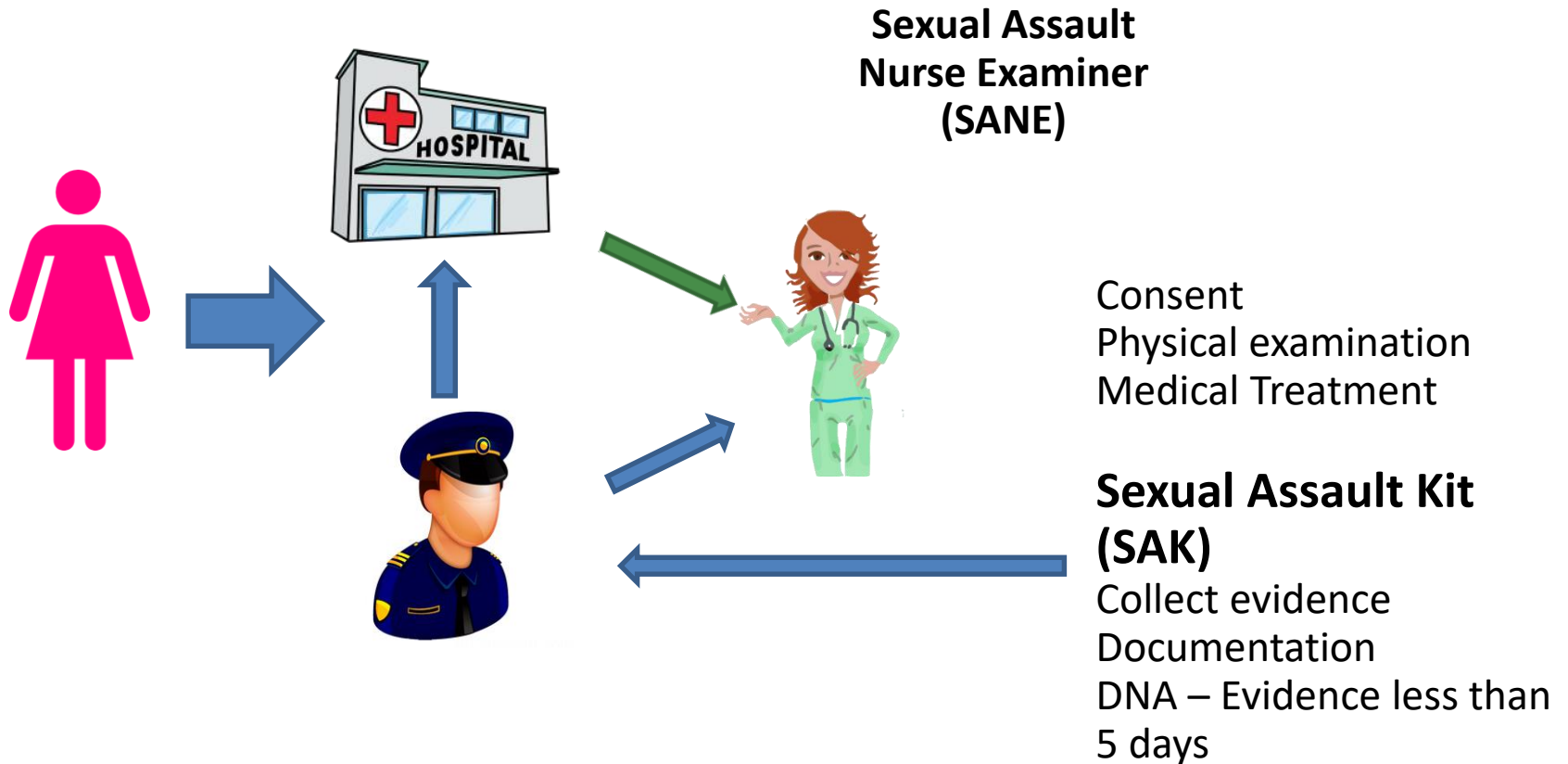
(Black et.al, 2011)



- 1 in 71 men (Black et.al, 2011)
- International rates – 15% to 71% (WHO, 2016)



# What Happens When Someone Reports?



# Vulnerabilities and Prevention: A difficult balancing act



# SEXUAL ASSAULT STUDY

RETROSPECTIVE SANE CHART REVIEW

FOUR SITES

SANE PROGRAMS

4 YEAR UNIVERSITIES

N = 2,317 CASES

CRITERIA:

- AGE 14 OR OLDER
- FULL EXAM WITH SEXUAL ASSAULT KIT
- REPORTED TO LAW ENFORCEMENT

January 2010 through December 2014





# Victim descriptive data - Age

**AGE RANGE: 14-92 YEARS**

**AGE MEDIAN: 24 YEARS**

**AGE MEAN: 27.6 YEARS**

## **PERCENTILES:**

Q1, 25%                      14 – 19 YEARS

Q2, 50%                      14 – 24 YEARS

Q3, 75%                      14 – 33 YEARS



# Victim descriptive data - Gender

- 95% Female, 5% Male
- Changes to state form in 2016:

Sex  Male  Female  Transgender: M to F Female  Transgender: F to M Male  Intersex



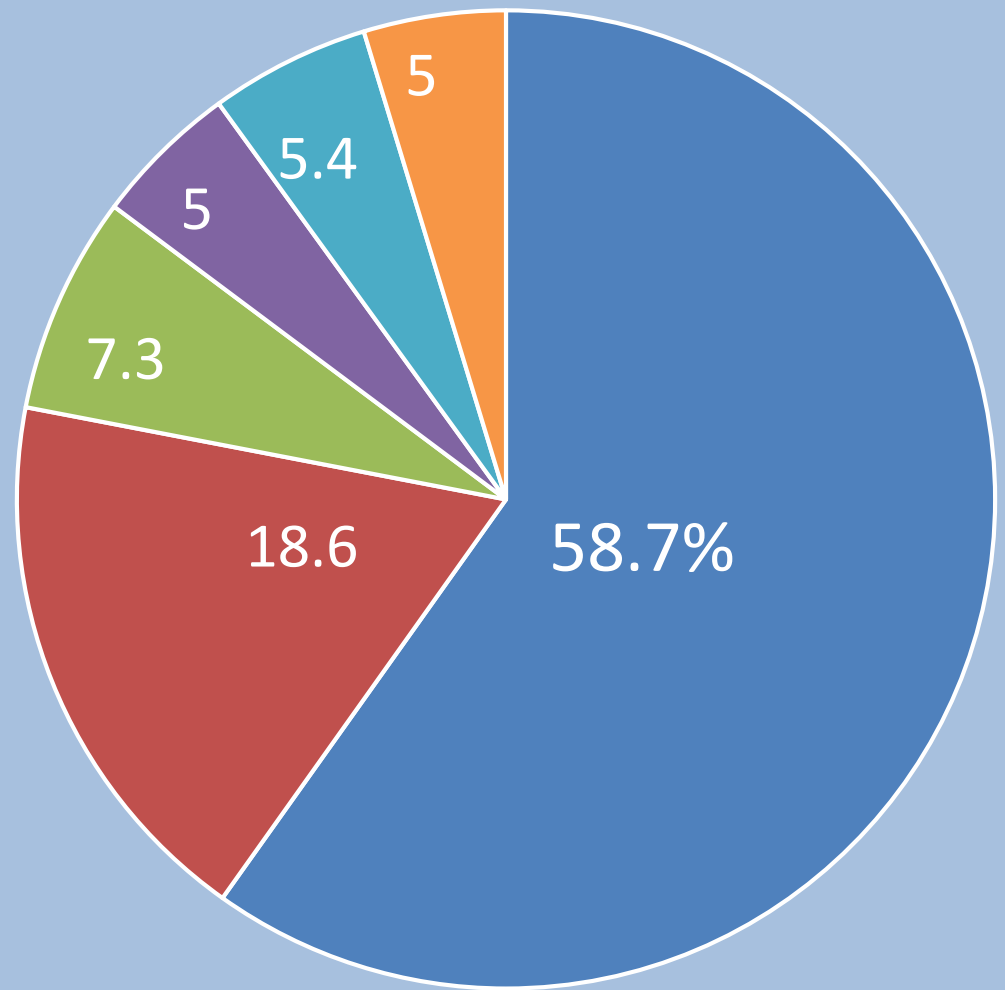
# Victim descriptive data - Race

|                        | Study (N=2,317) | Utah Census* |
|------------------------|-----------------|--------------|
| White                  | 77.6%           | 91.2%        |
| Black                  | 3.3%            | 1.3%         |
| Hispanic               | 12.3%           | 13.7%        |
| Asian/Pacific Islander | 2.0%            | 3.5%         |
| American Indian        | 2.9%            | 1.5%         |
| Other                  | 0.7%            |              |
| Unknown                | 1.2%            |              |

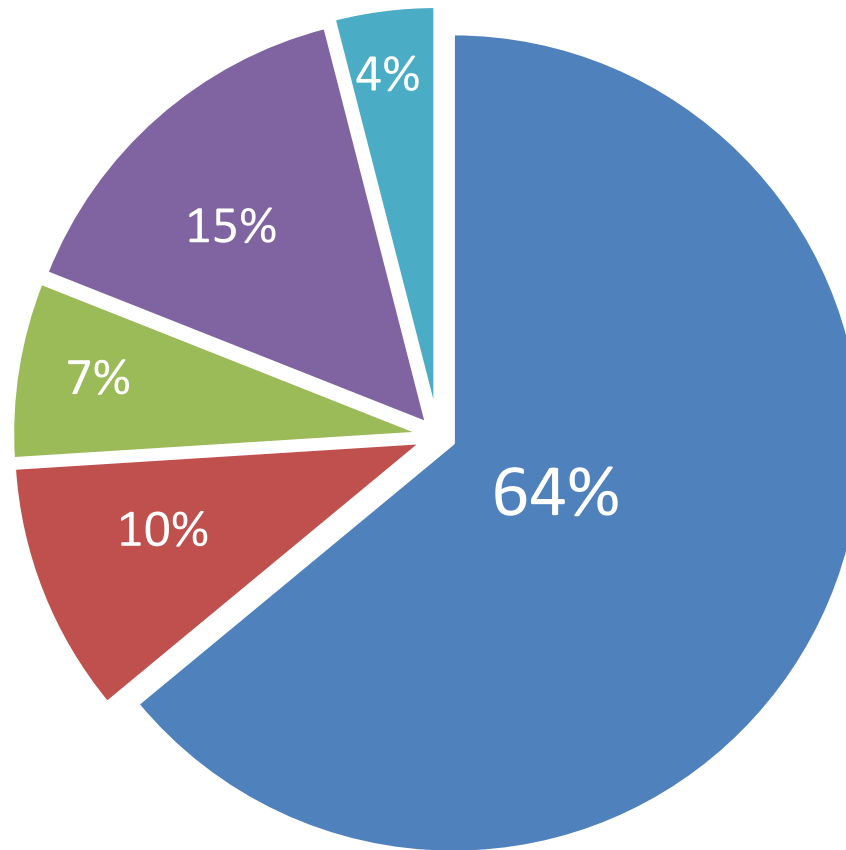
\*United States Census Bureau (2015)



# Victim to Suspect Relationship



- Acquaintance
- Stranger
- Spouse/ Partner
- Ex-boyfriend
- Other
- Unknown



■ House/Apartment ■ Outside ■ Car ■ Other ■ Unknown

## Location of Assault



## Descriptive data on alcohol and drug use

- Suspected drug-facilitated assault: 17%
- Patient use of drugs prior to assault: 13%
- Patient use of alcohol prior to assault: 46%
- Suspect use of drugs prior to assault: 15%  
(41% unknown)
- Suspect use of alcohol prior to assault: 37%  
(39% unknown)
- Patient or suspect use of drugs or alcohol: 56%  
(26% unknown)



# Medical History on Form

## MEDICAL HISTORY

Current Medication(s):  no or list \_\_\_\_\_

Allergies to Medication:  no or list \_\_\_\_\_

Current medical problems:  no or list \_\_\_\_\_

Any surgeries/Medical Procedures:  no or list \_\_\_\_\_

Tetanus:  current  over 10 years  unknown \_\_\_\_\_

Hepatitis B vaccine:  yes  no  unknown \_\_\_\_\_

LMP: \_\_\_\_\_ Age of Menarche: \_\_\_\_\_ Prior vaginal deliveries:  yes  no \_\_\_\_\_



# Descriptive data on victim physical health

|  | Study (N = 2,317) | Utah data on under age 40 years   | U.S. data (all ages)                                  |
|--|-------------------|---|---|
| Current medical problem  | 60%               |   |   |
| Chronic medical problem  | 48%               | 18%<br><i>Heart, liver, kidney problems; arthritis; asthma; cancer; COPD and diabetes</i> | 49.8%<br><i>(Ward, Schiller, &amp; Goodman, 2014)</i> |
| Medical problems by systems: Infection 7% <ul style="list-style-type: none"> <li>• Blood 5%</li> <li>• Cardiac 8%</li> <li>• Ear 1%</li> <li>• Endocrine 9%</li> <li>• Eye 1%</li> <li>• Gastrointestinal 8%</li> <li>• Genitourinary 2%</li> <li>• Gynecological 6%</li> <li>• Immune 5%</li> <li>• Musculoskeletal 9%</li> <li>• <b>Neurological 13%</b></li> <li>• Oral 1%</li> <li>• Renal 2%</li> <li>• <b>Respiratory 13% - Asthma 85% of resp. disorders (11% compared to 9%)</b></li> <li>• Skin 2%</li> </ul> |                   |   |   |



# Prior History of Sexual Assault ( $N=1,590$ )

- Association with medical problems:  $p = .000$
- Association with chronic physical health problems:  $p = .000$
- Association with self-disclosure MI:  $p = .000$
- Association with psych med use:  $p = .002$

**Confirms ACE Study Findings**

<http://www.cdc.gov/violenceprevention/acestudy/findings.html>



# Preexisting Mental Health Conditions

|   | Study      | SAMHSA<br>2014* | SAMHSA<br>UTAH<br>2014* |
|---|------------|-----------------|-------------------------|
| Self –disclosure MI                                     | <b>36%</b> |                 |                         |
| Use of Psychotropic Medication                          | <b>40%</b> |                 |                         |
| Self-disclosure MI or use of psychotropic meds          | <b>45%</b> |                 |                         |
| Prevalence of MI  |            | <b>18%</b>      | <b>22%</b>              |
| *Any MI – No substance abuse or developmental disorders |            |                 |                         |



# Descriptive data on victim mental health

|   | Study (N = 2,317) | Utah               | U.S.                                   |
|---|-------------------|--------------------|--|
| Self-disclosure mental illness or use of psychotropic medications | 45%               | 22% (SAMHSA, 2014) | 18% (NIMH, 2015)<br>18% (SAMHSA, 2014) |
| Types of mental illness   |                   |                    |  |
| Depression  | 21%               |                    | 7% (NIMH)                              |
| Anxiety   | 16%               |                    | 3% (NIMH)                              |
| Bipolar disorder  | 8%                |                    | 2.6% (NIMH)                            |
| PTSD  | 6%                |                    | 3.5% (NIMH)                            |
| ADHD/ADD  | 4%                |                    | 4% (NIMH)                              |
| Psychotic disorder  | 2%                |                    | 1% (NIMH)                              |
| Personality disorder  | 1%                |                    | 9% (NIMH)                              |
| Drug or alcohol addictions  | 1%                |                    |  |
| Eating disorders  | 0.4%              |                    |  |

# For those that self-disclosed mental illness at time of exam:

| Self- Disclosed MI       | %  |
|--------------------------|----|
| Depression               | 44 |
| Anxiety                  | 34 |
| Bipolar Disorder         | 18 |
| PTSD                     | 12 |
| ADHD                     | 9  |
| Psychotic Disorder       | 5  |
| Personality Disorder     | 4  |
| Drug & alcohol disorders | 2  |
| Eating disorders         | 1  |



# Psychotropic Medication Use - 2010

|  | Study<br>N= 1874 | Medco<br>2010*<br>National | Medco Mountain<br>West |
|--|------------------|----------------------------|------------------------|
| <b>Psych Med Use</b>                                       | <b>40%</b>       | <b>25% (F)<br/>20% (M)</b> | <b>15%</b>             |
| Medco: Antidepressants, Anti-anxiety, ADHD, Antipsychotics |                  |                            |                        |
| **No Bipolar Medications                                   |                  |                            |                        |



\*Medco is for insured persons only



# Psychotropic Medication Use

|                                | Study<br>(Reported use) | CDC<br>2010* | NIMH<br>2005* | NHNES<br>2010* |
|--------------------------------|-------------------------|--------------|---------------|----------------|
| Atypical Antipsychotics        | <b>13%</b>              |              | 1%            |                |
| Antianxiety                    | <b>20%</b>              | 6%           | 8%            |                |
| Antidepressants                | <b>35%</b>              | 12%          | 7%            | 8%<br>10%(F)   |
| Bipolar Meds                   | <b>11%</b>              | 5%           | 3%            |                |
| Sleep Aid Meds                 | 11%                     | 6%           |               | 4%<br>5% (F)   |
| Stimulants/ADD or ADHD<br>meds | 6%                      |              | 4%            |                |
| Typical Antipsychotics         | 1%                      |              | 1%            |                |

**Note: Difference between having a diagnosis and being treated.**



# MI or Use of Psychotropic Medications ( $N=2,317$ )

## NOT SIGNIFICANT

- Drug Use prior to assault (12%)  
 $p = .325$
- Loss of consciousness/awareness  
 $p = .627$

Chi-square tests of association

## SIGNIFICANT

- Alcohol Use prior to assault  
(47%)  $p = .015$
- Suspected drug facilitated  
assault (17%)  $p = .020$
- Asleep and awoke to being  
raped (14%)  $p = .038$



# Implications of Findings

- **Increased understanding of sexual assault**
  - Victims know assailants
- **Vulnerable groups**
  - 17-24 years
  - Black Americans & Native Americans
  - Mental illness
- High percentage of victims with current medical problem.





# Clinical and Research Implications

- Develop evidence based nursing care practices
- Implement community prevention strategies
  - Vulnerable groups
  - Educate primary care providers on screening



# References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author
- Avegno, J., Mills, T.J. & Mills, L.D. (2009). Sexual assault victims in the emergency department: Analysis by demographics and event characteristics. *The Journal of Emergency Medicine*, 37(3), 328-334.
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., Chen, & Stevens, M. R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- CDC 2010
- Larsen, M.L., Hilden, M. & Lidegarrrd, O. (2015). Sexual assault: A descriptive study of 2500 female victims over a 10 year period. *BJOG: An International Journal of Obstetrics and Gynecology*, 122, 577-584/
- Medco (2010). America's State of Mind Report. Retrieved from <http://apps.who.int/medicinedocs/documents/s19032en/s19032en.pdf>
- National Institute of Mental Health (2005). Any Disorder Among Adults. Retrieved from [http://www.nimh.nih.gov/statistics/1ANYDIS\\_ADULT.shtml](http://www.nimh.nih.gov/statistics/1ANYDIS_ADULT.shtml)
- National Health and Nutrition Survey (2010). National Health and Nutrition Examination Survey data, 2007–2010. Retrieved from <http://www.cdc.gov/nchs/nhanes.htm>
- Substance Abuse and Mental Health Services Administration, Results from the 2012 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-47, HHS Publication No. (SMA) 13-4805. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. Retrieved from [http://www.samhsa.gov/data/NSDUH/2k12MH\\_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm](http://www.samhsa.gov/data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm)
- Substance Abuse and Mental Health Services Administration. (2009). Data, Outcomes and Quality. Retrieved from <http://www.samhsa.gov/data/2k9State>
- World Health Organization (2016). Violence against women fact sheet retrieved from <http://www.who.int/mediacentre/factsheets/fs239/en/>
- Zinzow, H. M., Amstadter, A.B., McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. (2011). Self-rated health in relation to rape and mental health disorders in a national sample of college women. *Journal of American College Health* 59(7), p.588-594. doi: 10.1080/07448481.2010.520175.
- Zinzow, H. M., Resnick, H.S., McCauley, J. L., Amstadter, A. B. Ruggiero, K. J., & Kilpatrick, D. G. (2012). Prevalence and risk of psychiatric disorders as a function of variant rape histories: results from a national survey of women. *Social Psychiatry and Psychiatric Epidemiology*, 47(6), p.893-902. doi: 10.1007/s00127-011-0397-1.



# **UNDERSTANDING PERI-TRAUMATIC SYMPTOMS OF SEXUAL ASSAULT: TRANSFORMING NURSING CARE OF VICTIMS WORLD-WIDE**



**Linda Mabey, DNP, PMHCNS-BC**

**Julie Valentine, PhD, RN, CNE, SANE-A**

**Leslie Miles, DNP, APRN, PMHNP-BC**



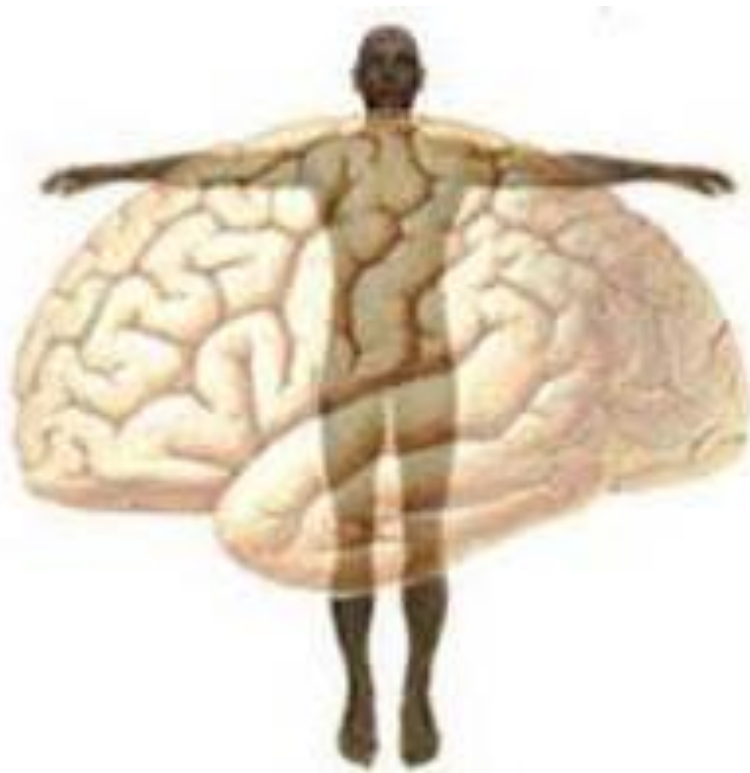
# Learning Objectives

- Discuss peri-traumatic symptoms experienced by many sexual assault victims and their relationship to key brain structures and processes.
- Propose ideas for how nurses can utilize this research to transform the care of sexual assault victims.



# Peri-traumatic Symptoms – What are they and where do they come from?





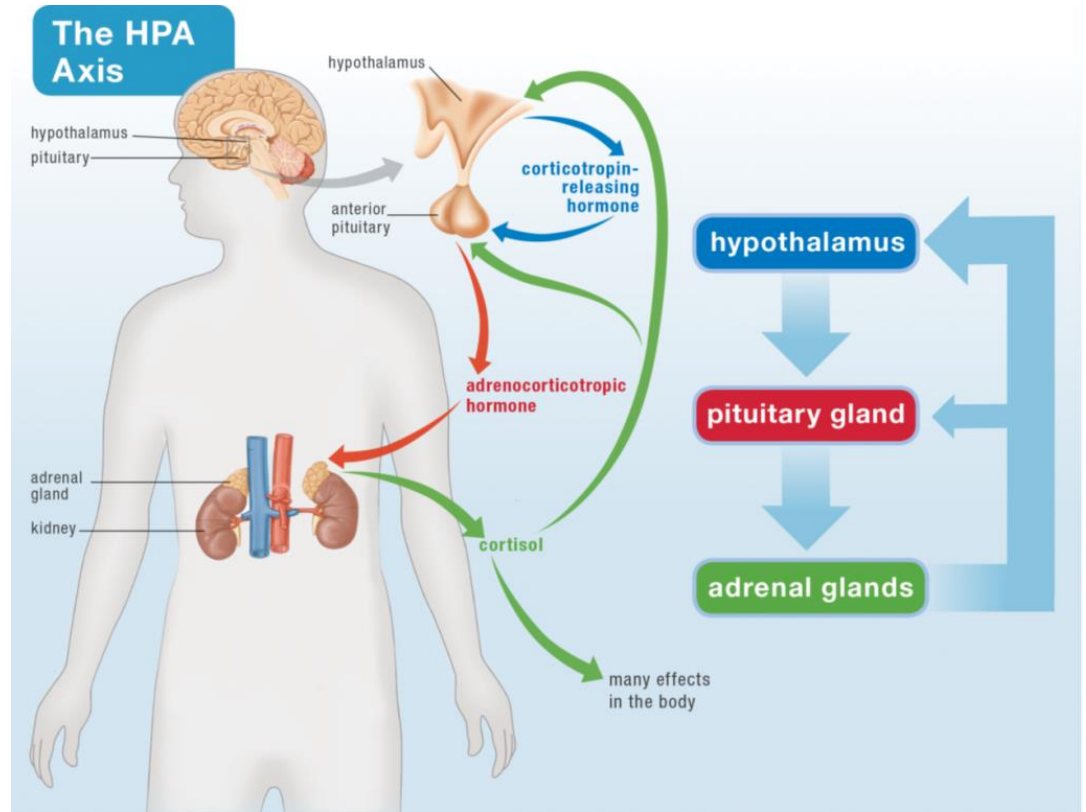
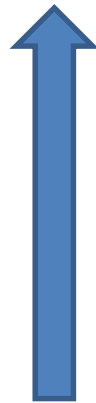
**“The brain and body are in constant reciprocal, dynamic interaction, adapting to and influencing each other.”**

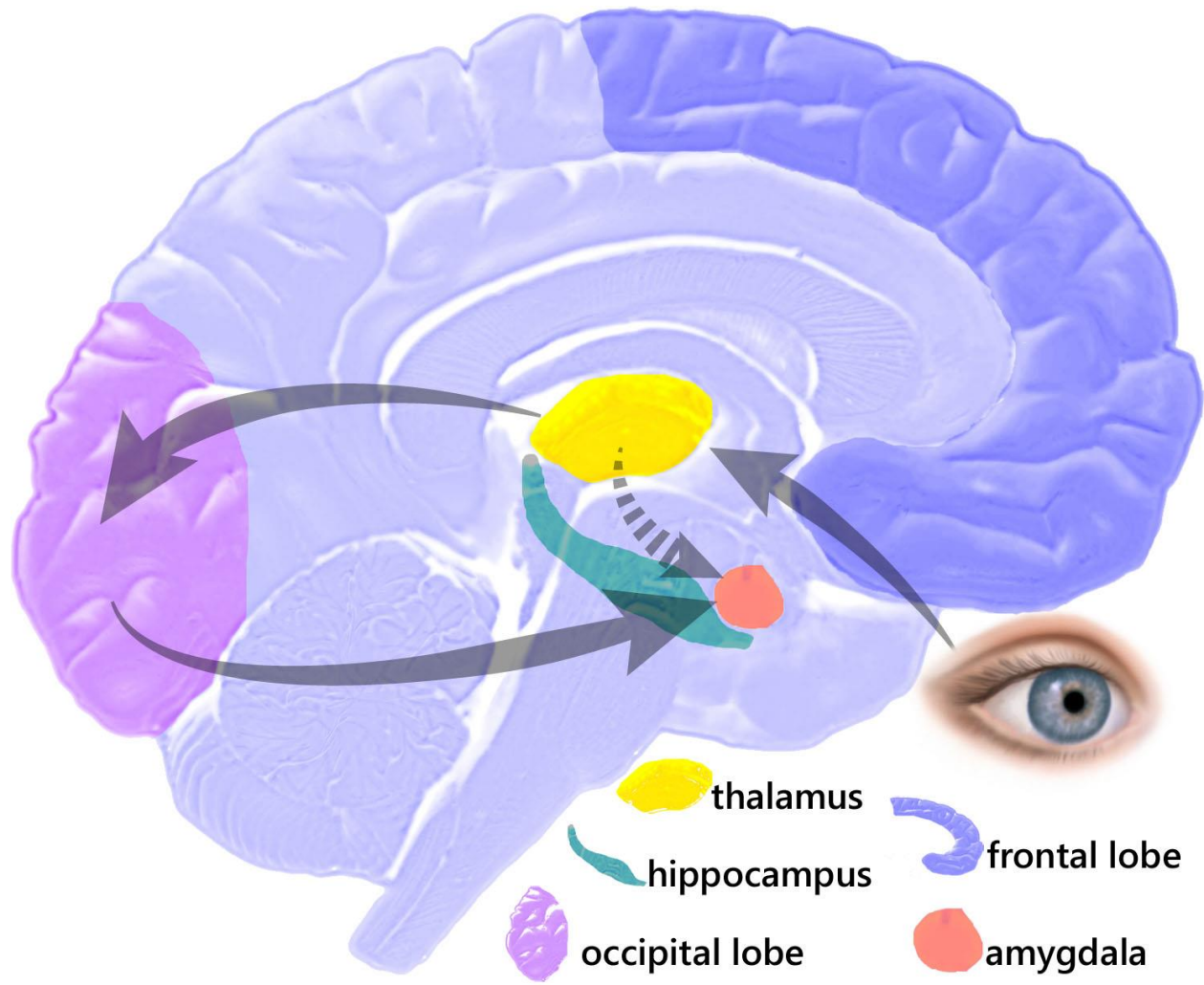
(Wheeler, 2013)



# Immediate Consequences

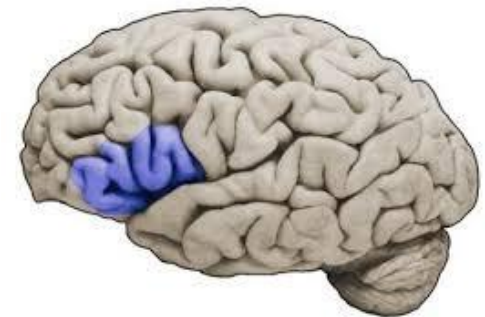
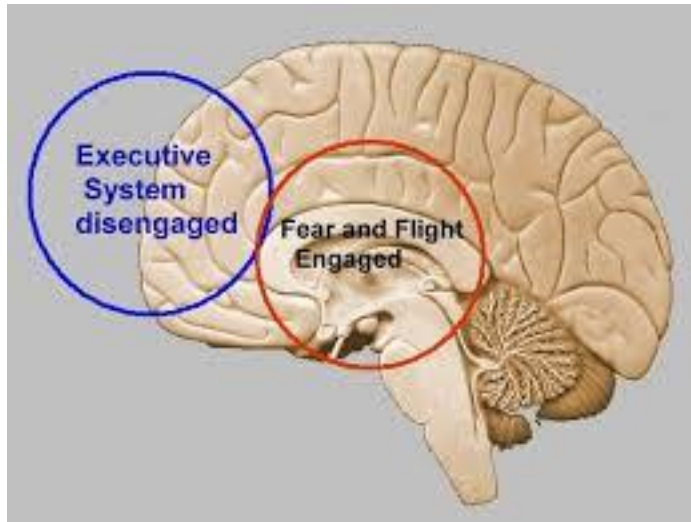
Cortisol  
Catecholamines  
Opioids







# Trauma Effects on the Brain: “Speechless Terror”



**3 F's: Fight, Flight or  
Freeze**



# Loss of Consciousness, Awareness, Memory Loss

Summary of Assault Described by Patient \_\_\_\_\_

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Patient lost consciousness/awareness?  Yes  No If yes \_\_\_\_\_

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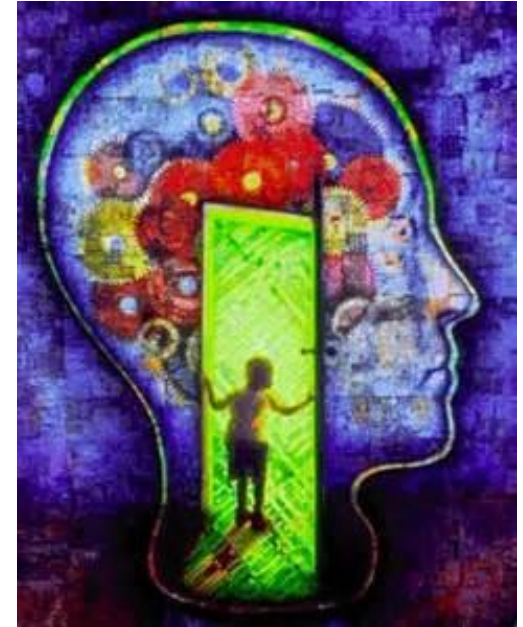


# Mixed Method Study

## Qualitative Portion - Five Themes Identified

*N*=722 (2010 & 2011 charts)

- Loss of consciousness or awareness
- Memory loss
- Changes in feelings of consciousness or awareness
- Tonic immobility
- Dissociation



# Prevalence of Loss of Consciousness, Awareness, Memory (N=2,317)

- *49% of patients reported “Yes” to the question, “Did you lose consciousness or awareness during the assault?”*



# Prevalence of Loss of Consciousness, Awareness, Memory ( $N=2,317$ )

- Full loss of consciousness or awareness: 34%
- Memory loss: 34%
- Changes in feelings of consciousness or awareness: 16%
- Tonic immobility: 3%
- Dissociation: 2%



# Logistic Regression Predicting Loss of Consciousness or Awareness

| Predictor                            | b (SE)      | Wald    | Odds Ratio | 95% CI, Odds Ratio Lower | 95% CI, Odds Ratio Upper |
|--------------------------------------|-------------|---------|------------|--------------------------|--------------------------|
| Suspected drug facilitated assault   | 2.25 (.19)  | 143.958 | 9.47       | 6.562                    | 13.679                   |
| Strangulation                        | .41 (.15)   | 7.762   | 1.51       | 1.130                    | 2.020                    |
| Patient alcohol use prior to assault | 1.38 (.11)  | 165.103 | 3.97       | 3.214                    | 4.892                    |
| Constant                             | -1.54 (.08) | 330.79  | .21        |                          |                          |



# Can we predict loss of memory, consciousness or awareness?

- Victims that **reported suspected drug-facilitated assault** were **9 times** more likely to report loss of memory, consciousness or awareness.
- Victims that **reported drinking alcohol** were **4 times** more likely to report loss of memory, consciousness or awareness.
- Victims that **reported strangulation** were almost **2 times** more likely to report loss of memory, consciousness or awareness.



# Can we predict loss of memory, consciousness or awareness?

- The logistic regression model classified 75% of the cases in which victims reported a loss in consciousness or awareness, but *failed to classify 25% of the cases.*





# Patient statements without predictors

All acquaintance rapes:

- Unclear moments of entire event. Loss of memory when walking outside, in and out of consciousness. Memories that are there are very fuzzy. (exam 27 hours after assault)
- “I kind of went blank – just shocked.” Indicates that she was still aware but in shock during the assault. (exam 28 hours after assault)
- “I didn’t make eye contact.” She described dissociations from her body. She says she doesn’t remember exactly what happened. (exam 82.5 hours after assault)
- “Things went blurry. I froze up... Everything is so blurry. I can’t remember at all.” (exam 15 hours after assault)



# So What?

- Enhanced understanding of Per-traumatic symptoms.
- Collaboration with law enforcement.
- Education or physical and mental health providers.
- Trauma-informed Care



# Study Limitations



# References

Substance Abuse and Mental Health Services Administration, National Center for Trauma-informed Care. Six key principles for a trauma-informed approach. Retrieved from: <https://www.samhsa.gov/nctic/trauma-interventions>

Valentine, J., Mabey, L., & Miles, L. (2016). Neurobiology of trauma. In Amar, A.F. & Sekula, L.K. (Eds.), *A practical guide to forensic nursing* (37-52). Indianapolis: Sigma Theta Tau International.

Wheeler, K. (2013). *Psychotherapy for the Advanced Practice Psychiatric Nurse, 2<sup>nd</sup> Ed.* New York, NY: Springer Publishing Company.

Wilson, C., Lonsway, K., Archambault, J. (2016). Understanding the neurobiology of trauma and implications for interviewing victims. Retrieved from: <http://www.evawintl.org/library/DocumentLibraryHandler.ashx?id=842>



# Sexual assault evidence kits: Interprofessional research on submission rates and implications on practice

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# Learning Objectives

- Describe sexual assault kit submission rates and their predicting variables from a large-scale, retrospective study.
- Discuss the community response to the interprofessional study findings in making improvements to issues related to sexual assault to promote safer and healthier communities.





# Purpose

- The purpose of this study was to evaluate the submission rates of SAKs from multiple sites in Utah with SANE programs, explore legal and extralegal predicting variables associated with SAK submissions, and examine the length of time between assault dates and SAK submission dates.





# Methodology

- Retrospective Chart Review
  - Coded data as a team
  - Cohen's Kappa for interrater reliability (Kappa across all variables of .955)
  - Collaboration with state crime laboratory
  - Limitations due to methodology and population homogeneity



# Data Analysis

- Descriptive statistics

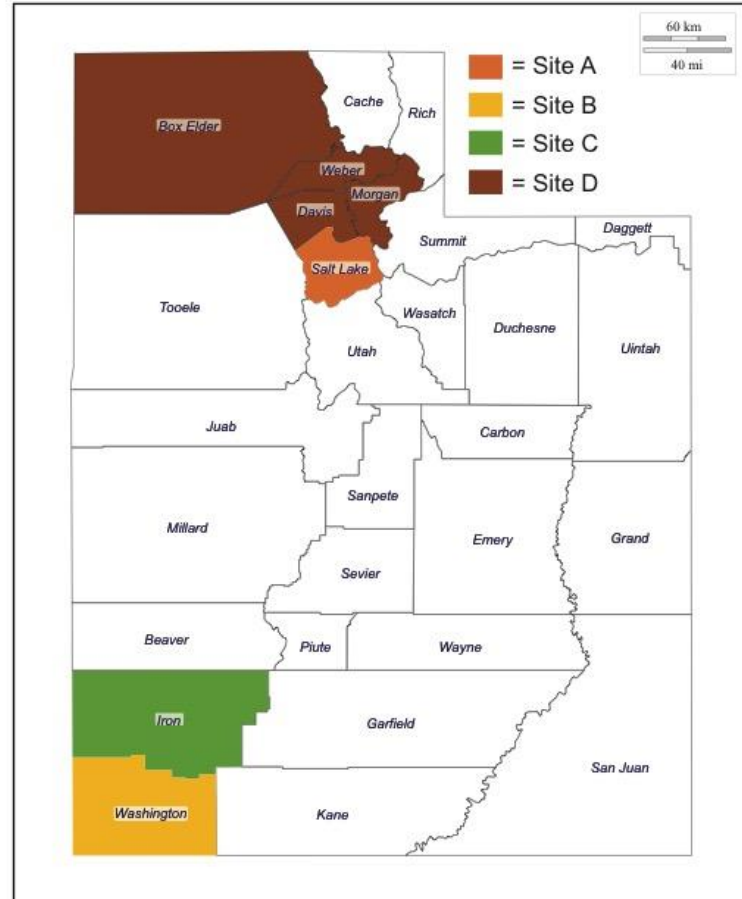
Submission of SAKs across sites:

- Generalized estimating equation (GEE)
- GEE logistic regression modeling



# UTAH

## Study Sites



| Sites                                  | LE Agencies | University | SANE Program | SART |
|--|-------------|------------|--------------|------|
| A: Salt Lake County                    | 12          | X          | X            | X    |
| B: Washington County                   | 10          | X          | X            | X    |
| C: Iron County                         | 4           | X          | X            | X    |
| D: Davis, Box Elder, Weber, and Morgan | 28          | X          | X            | X    |

40% of Law Enforcement (LE) Agencies in Utah  
65% of Population in Utah



# Sample

- January 1, 2010 to December 31, 2013
- Fully collected sexual assault kits (SAKs)
- Age 14 years and up
- Crime occurred within sites in study
- Victim wanted to talk to LE about prosecuting case

*N* = 1,874 SAKs

Site A = 1,297 SAKs

Site B = 120 SAKs

Site C = 48 SAKs

Site D = 409 SAKs

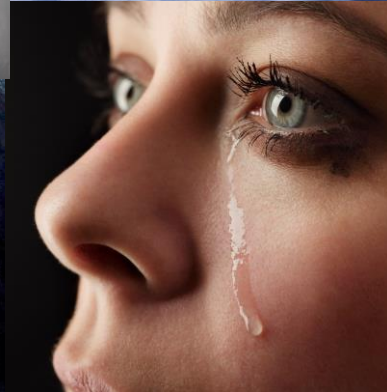
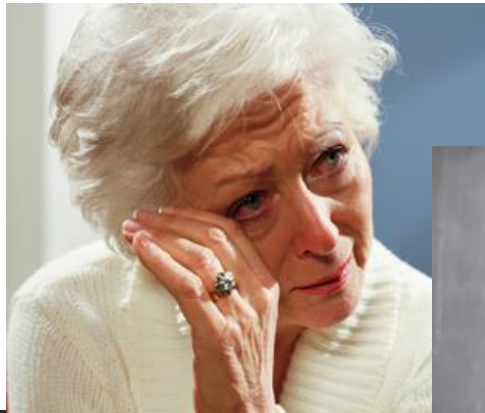


# Variables

## Legal Characteristics:

- Weapon used
- Strangulation
- Multiple suspects
- Suspected drug-facilitated assault
- Number of assaultive acts
- Ejaculation occurred
- Physical injury and # of physical injuries
- Anogenital injury and # of anogenital injuries





# Variables

## Extralegal Characteristics:

- Victim age
- Victim gender
- Victim race
- Suspect race (white/non-white)
- Time between assault and exam (hours)
- Victim use of psychotropic medications
- Victim self-disclosed mental illness
- Victim drug use prior to assault
- Victim alcohol consumption prior to assault
- Victim with physical or mental impairment
- Victim reports loss of consciousness or memory loss
- Victim to suspect relationship
- Consensual sexual partner 5 days prior to assault
- Victim bathed or showered post-assault and prior to exam





# What did we learn about victims and rape in Utah?



# Findings - Legal Characteristics

- Weapon: 10%
- Strangulation: 12%
- Multiple suspects: 10%
- Suspected drug-facilitated assault: 17%
- Number of assaultive acts (fondling to 4): 57% 1 to 2 acts
- Ejaculation: 30% (Unknown 58%)
- Physical injury: 74%
- Number of physical injuries: mean of 6
- Anogenital injuries: 60%
- Number of anogenital injuries: mean of 2



# Findings - Extralegal Characteristics

- Victim age: mean of 27 years, range of 14-93 years.
- Victim gender: 95% female, 5% male
- Victim race: 78% white, 22% non-white
- Suspect race: 53% white, 34% non-white, 12% unknown
- Time between assault and exam: mean of 22 hours
- Victim use of psychotropic meds: 40%
- Victim self-disclosed mental illness: 35%
- Victim self-disclosed psych meds or MI: 45%



# Findings - Extralegal Characteristics

- Victim drug use: 12%
- Victim alcohol use: 47%
- Victim or suspect used drugs/alcohol: 55% (27% unknown)
- Victim with physical or mental impairment: 8%
- Victim reported loss of consciousness: 49%
- Victim reported memory loss: 33%
- Consensual sexual partner 5 days before assault: 28%
- Victim bathed or showered post-assault: 35%



# Findings from Crime Laboratory on SAK Submissions

- Submitted within 1 month of assault
- Submitted 1-12 months of assault
- Submitted 1 year or later after assault (late 2014 through 2015) = forced submissions



## SAK Submissions per Site and Time Submitted

|   | Site A<br>N=1,297 | Site B<br>N=120 | Site C<br>N=48 | Site D<br>N=409 | All Sites<br>N=1,874 |
|---|-------------------|-----------------|----------------|-----------------|----------------------|
| Submitted within 1 month of assault     | 16.0%             | 0.8%            | 14.6%          | 4.9%            | 12.6%                |
| Submitted 1-12 months after assault     | 6.6%              | 3.3%            | 22.9%          | 22.7%           | 10.2%                |
| Submitted 1 year or later after assault | 18.0%             | 14.2%           | 2.1%           | 8.6%            | 15.4%                |
| Total Submitted                         | 40.6%             | 18.3%           | 39.6%          | 36.2%           | 38.2%                |
| Total Not Submitted                     | 59.4%             | 81.7%           | 60.4%          | 63.8%           | 61.8%                |

# Findings - SAK Submissions

|  | Site A | Site B | Site C | Site D | All Sites |
|--|--------|--------|--------|--------|-----------|
| SAKs submitted within a year of assault                    | 22.6%  | 4.1%   | 37.5%  | 27.6%  | 22.8%     |
| SAKs submitted > 1 year from assault: “forced” submissions | 18.0%  | 14.2%  | 2.1%   | 8.6%   | 15.4%     |
|  |        |        |        |        |           |
| TOTAL submitted  | 40.6%  | 18.3%  | 39.6%  | 36.2%  | 38.2%     |
| TOTAL unsubmitted  | 59.4%  | 81.7%  | 60.4%  | 63.8%  | 61.8%     |

# Logistic Regression Model Using GEE on Legal and Extralegal Characteristic and SAK Submissions

What legal and extralegal characteristics predicted SAK submission?

More likely to be submitted:

- Suspected drug-facilitated assault: 25% more likely
- Male victims: 46% more likely



Identifying and Preventing Gender Bias in  
Law Enforcement Response to Sexual Assault  
and Domestic Violence





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- Suspected drug-facilitated assault: 25% more likely
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Less likely to be submitted:

- Victim used drugs prior to assault: 22% less likely
- Victim bathed or showered post-assault: 17% less likely
- Victim with physical/mental impairment: 17% less likely
- Known suspect: 16% less likely



# Financial burden of SAK collection

- 1,163 SAKs were collected, but never submitted by LE for analysis.

| Expenses for 1,163 SAKs not submitted   | Amount              |
|---|---------------------|
| Cost of SAKs paid by state crime laboratory, Utah Bureau of Forensic Services | \$18,608.00         |
| Amount paid to SANEs for SAK collection by Utah Office of Victims of Crime    | \$697,800.00        |
| <b>TOTAL:</b>   | <b>\$721,060.00</b> |



# Discussion

How does Utah compare?

1. Midwestern study, 58.6% SAKs submitted (Patterson & Campbell, 2012)
2. Midwestern study, adolescents, 59.3% SAKs submitted (Shaw & Campbell, 2013)
3. Five jurisdictions in US, 602 randomly selected rape cases, 42% with biologic evidence submitted (Johnson, Peterson, Sommers & Baskin, 2012)
4. Denver, 89% with biologic evidence submitted (McEwen, 2011)
5. San Diego, 57% with biologic evidence submitted (McEwen, 2011)



# Discussion

- **Justice denied** for victims of unsubmitted SAKs.
- **Justice inequity** as the strongest predictor of SAK submissions is the site or jurisdiction. In other words, the jurisdiction where the victim was raped.
- The extralegal characteristics that predicted SAK submissions **exposed biases within LE** affecting SAK submissions.



# Recommendations

- Standardized submission of SAKs by state law mandating automatic submission of SAKs to state crime lab.
- The establishment of a SAK tracking system.
- Reduce the prevalence of sexual assault in Utah by improving the criminal justice response in sexual assault cases.



# Recommendations

- Education/training recommendations within criminal justice system.
- Increase collaboration across all community partners.
- Increase reporting of sexual assault cases by supporting victims.



# Community response to study

- Passage of House Bill 200



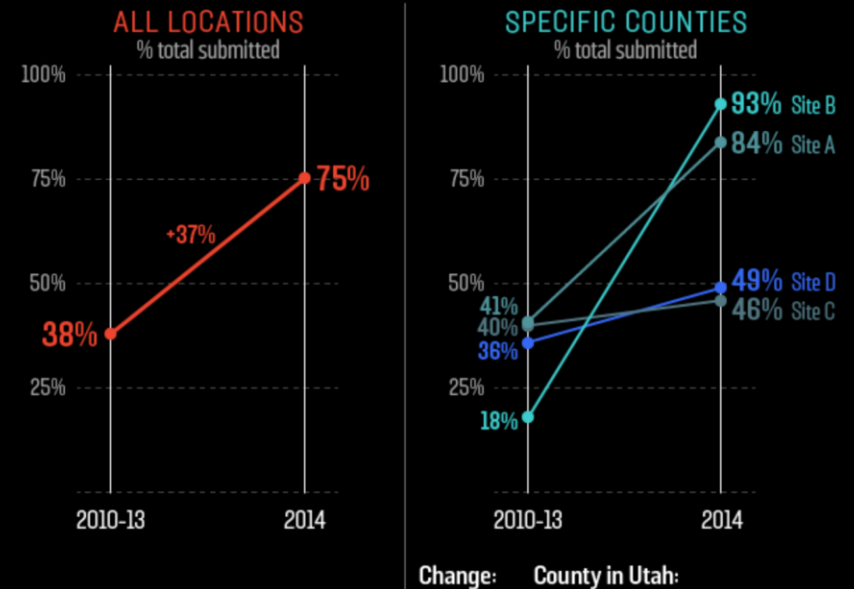
# This State Just Took A Huge Step Toward Solving More Rapes

The failure to process evidence in sexual assaults is a national disgrace. New data shows how Utah is fixing the problem



# Rape Kit Submission Rate Rises In Utah

The state has seen testing rates rise from 38 to 75 percent



(Clark-Flory, 2017)





# References

- Cowan, L. (2016). Costs of sexual violence in Utah. Retrieved from <http://www.ucasa.org/wp-content/uploads/2016/01/Costs-of-Sexual-Violence-in-Utah-Final.pdf>
- Clark-Flory, T. (2017). This state just took a huge step to solving more rapes. *Vocativ*. Retrieved from <http://www.vocativ.com/406356/utah-solving-more-rapes/>
- Federal Bureau of Investigations. (2012). Uniform crime reports: State by state. Retrieved from <http://www.ucrdatatool.gov/Search/Crime/State/RunCrimeStatebyState.cfm>
- Johnson, D., Peterson, J., Sommers, I., & Baskin, D. (2012). Use of forensic science in investigating crimes of sexual violence: Contrasting its theoretical potential with empirical realities. *Violence Against Women*, 18(2), 193-222.
- McEwen, T. (2011). The role and impact of forensic evidence in the criminal justice system, final report. Washington D.C.: U.S. Department of Justice. Retrieved from <https://www.ncjrs.gov/pdffiles1/nij/grants/236474.pdf>
- Mitchell, C. & Peterson, B., (2008). Rape in Utah 2007: A survey of Utah women. Retrieved from <http://nomoresecrets.utah.gov/Documents/RapeinUtah2007.pdf>
- Patterson, D., & Campbell, R. (2012). The problem of untested sexual assault kits: Why are some kits never submitted to a crime laboratory? *Journal of Interpersonal Violence*, 27(11): 2259-2275.
- Peterson, J. L., Hickman, M.J., Strom, K.J., & Johnson, D.J. (2013). Effect of forensic evidence on criminal justice case processing. *Journal of Forensic Sciences* 58(SUPPL.1): S78-S90.
- Shaw, J., & R. Campbell, R. (2013). Predicting sexual assault kit submission among adolescent rape cases treated in forensic nurse examiner programs. *Journal of Interpersonal Violence*, 28(18), 3400-3417.
- Strom, K. J., & Hickman, M.J. (2010). Unanalyzed evidence in law-enforcement agencies. *Criminology & Public Policy* 9(2): 381-404.

