Intersection of Brain Injury and Domestic Violence

Peggy Reisher, MSW, BIA-NE Executive Director

Kathy S. Chiou, Ph.D., University of Nebraska-Lincoln Assistant Professor
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Domestic Violence
What is Domestic Violence

Pattern of physical assaults, threats, and/or coercive behaviors used to maintain control over a current or former intimate partner

- Overlooked by medical providers, law enforcement, first responders, etc...
- Domestic violence is the leading cause of physical injury in American women ages 15-44
- 1 in 4 women will experience severe physical violence by a partner in their lifetime
Common Clues

- Constantly canceling plans
- Always worrying about making partner angry
- Gives up activities that are important
- Shows signs of physical abuse (e.g., bruises, cuts)
- Needs to be available to partner all the time
- Becomes isolated from friends or family
Common Clues

- Insults significant other in public
- Acts jealous when they talk to others
- Checks in constantly
- Blows disagreements way out of proportion
- Breaks or hits things to intimidate others
- Blames the other for their own problems

**This is an abuser.**
Barriers to Leaving- F words

- Fear
- Finances
- Family
- Faith
- Forgiveness
- Fantasy
- Fatigue
- Fido
- Forced Sex
Project Components

- **DV Program Training**
  - BIA-NE and Neuropsych Partners

- **Modified HELP screening**
  - Friendship Home and WCA

- **Neuropsychological Assessments**
  - Neuropsych Partners

- **Qualitative Interview**
  - College of Public Health

- **Community Based Training**
  - BIA-NE and Neuropsych Partners
HELPS Brain Injury Screening Tool and Follow-up Questions

- The HELPS screening tool can:
  - Assist you in identifying an individual who may have a brain injury and additional support
  - Be used as a script as you talk to someone about the possibility of a brain injury and learning if they need an accommodation, adaptation, or modification during their stay with us.

- The HELPS screening tool is not a medical evaluation and does not provide a diagnosis. Any individuals identified should seek professional medical advice for any concern.
Screening Results

- **58%** (100 out of 162) of women screened for a brain injury in domestic violence shelters **screened positive** for a possible brain injury.

- **91%** (155 out of 171) of screening participants had been hit in the head or strangled.

- **65%** (100 out of 155) of those who had been hit in the head or strangled received **no medical treatment** for their injury.
Figure 1. When was your head hit or when were you strangled (multiple responses possible) (n=155)
(among those who have ever been hit in the head or strangled)

- Within the year: 50%
- 1-2 years ago: 25%
- 3-4 years ago: 10%
- Longer than 4 years ago: 22%
- As a child: 11%
Figure 2. How many times have you been hit in the head or strangled? (n=155)

(among those who have ever been hit in the head or strangled)

- 1 to 3: 48%
- 4 to 6: 21%
- More than 6: 31%
64% (99 out of 155) of those who had been hit in the head or strangled reported that they have blacked out, lost consciousness, or experienced a period of being dazed and confused because of a hit to the head or due to choking or strangulation.

Figure 3. How long have you felt this way? (n=95)

(among those who have ever been hit in the head or strangled and have blacked out, lost consciousness, or experienced being dazed and confused because of a hit to the head or due to choking or strangulation)

<table>
<thead>
<tr>
<th>Hours</th>
<th>Days</th>
<th>Months</th>
</tr>
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<tbody>
<tr>
<td>65%</td>
<td>29%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Problems in Daily Life

- **88%** (121 out of 138) of those who had been hit in the head or strangled reported that they have experienced problems in daily life which may be a result of a brain injury (see list of problems below).

- **43%** (49 out of 115) believe these problems in daily life are related to a head injury (an additional 37% are uncertain).
Symptoms

Figure 4. Given that you had a hit in the head due to strangulation or choking, have you experienced or are you experiencing...? (multiple responses possible) (n=121)

(among those who have ever been hit in the head or strangled and report experiencing prob)

- Feeling anxiety: 82%
- Depression: 81%
- Headaches: 77%
- Insomnia, difficulty sleeping, or changes in your...: 68%
- Difficulty concentrating or focusing: 65%
- Changes in relationship: 65%
- Difficulty remembering: 63%
- Feeling irritable or impatient: 61%
- Dizziness: 56%
- Fatigue: 54%
- Blurred or double vision: 50%
- Confusion: 50%
- Challenges with going back to school or work and...: 49%
- Sensitivity to light: 45%
- Numbness or weakness in any of your limbs: 44%
- Lack of balance: 39%
- Nausea: 36%
- Difficulty in problem solving is also good: 35%
- Changes in your sense of smell or taste: 26%
Neuropsychological Assessments
What and Why?

- What is neuropsychology?
  - Study of brain and behavior relationships
  - Evaluate strengths and weaknesses in cognition

- Why is it important?
  - Diagnostic applications
  - Intervention and treatment planning

- Neuropsychological Assessment
  - Voluntary basis, able to discontinue testing at any point
  - 1 on 1 basis, in quiet environment, minimal distractions
Assessing Cognition

- Brief clinical interview and evaluation of cognitive domains
  - Attention/working memory
  - Processing speed
  - Verbal & Visual Reasoning
  - Verbal & Visual Memory
  - Executive Functioning
Snapshot of our Sample

- Participation on a voluntary basis, free to discontinue at any time
- 1 on 1 evaluation in a quiet environment familiar to individual

Sample Demographics

<table>
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<tr>
<th>Total individuals completing assessment</th>
<th>56 (all female)</th>
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</thead>
<tbody>
<tr>
<td>Mean (SD) Age (years)</td>
<td>36.6 (8.7)</td>
</tr>
<tr>
<td>Mean (SD) Education (years)</td>
<td>12.3 (1.9)</td>
</tr>
<tr>
<td>Self-reported history of learning disability/disorder</td>
<td>22</td>
</tr>
<tr>
<td>Self-reported history of substantial substance use</td>
<td>33</td>
</tr>
</tbody>
</table>
Cognitive Performance in DV-Related BI

Average for age-matched peers

~68%

T-score

42.4  45.8  42.4  38.2  29.2  46

attention/working memory  processing speed  verbal reasoning  visual reasoning  verbal memory  visual memory  executive function

1.5 SD

~7%
Results from Testing

- Performance in all cognitive domains was below average in our sample of survivors.
- Pattern of particular weaknesses in visual reasoning, and both verbal and visual memory.

Lessons Learned as a Neuropsychologist

- Specific needs of working with this sample
- Consideration of co-morbidities
Qualitative Interviews
Survivor Perspectives

- 10 women agreed to do 1 on 1, face to face interview with researcher from UNMC College of Public Health
- Interviewed about how they felt about having a probable BI, as well as their experience of the neuropsychological assessment
  - Can you share with me how you felt when you were told that you might have a brain injury and were requested to do the follow-up assessment to do learn more?
  - Can you share with me more your thoughts and feelings about the assessment session you had?
- Transcripts of the interviews were coded and analyzed for key themes.
Key Themes: Emotional Reactions

- Scared
- Angry
- Dejected
- Not surprised
- Relieved
- Ashamed

“Oddly enough, a little relieved. I thought I was crazy. I thought I was imagining it...but when I heard that it was quite possible I wasn’t imagining it, that’s when I felt relieved.”

“Because at first, I didn’t know, and I was ashamed. I was ashamed my daughter’s gonna tell me, ‘See, we told you, you shoulda left a long time ago.’ And that’s something I didn’t wanna hear from them.”
Key Themes: Symptoms

- Difficulty with:
  - Memory
  - Concentration
  - Anxiety and depression

- Impact of symptoms:
  - Daily activities and work
  - Social impact-isolation

“I’ll get called slow. And that’s not really right...I’d try to remember something, or sometimes someone would have to repeat themselves over and over again...there’s already people thinking I had some kind of mental problem. No, it’s not mental. It’s brain injury.”

“I isolated myself a lot...I isolate myself as to not have to answer questions. Because it seems like when somebody asks me something or I go to try to remember something...my brain starts like...it seems like everything starts going really fast like and I can’t catch up. So I’d rather isolate myself, so this way I’m by myself, and I don’t have to answer to anybody.”
Key Themes: Reactions to Neuropsychological Assessment

“Yeah, cause I didn’t realize that I couldn’t remember that much stuff…it was kind of mind-opening to realize that I don’t know as much as—you know, my brain’s not working as well as I thought it was.”

“And now I feel like I’m…I can do it, you know. Don’t have to isolate myself. That I can…I can function in daily life like, you know, like anybody else can.”

- Overwhelmed and frustrated, but also interesting and challenging
- Anxiety provoking and embarrassing
- Insights to injury
- Confidence boost
- Good experience
After the Assessments

- Changed behavior to better manage symptoms
- Made plans/reached out to other professionals to get better.
- Beyond the assessments: what next?
  - How to manage symptoms
  - More information on community resources
  - Keeping in touch with local services

Brain Injury Alliance Nebraska
Community Based Trainings
Community Training

- **20** educational/training events
- **900** participants
  - Lawyers
  - Law enforcement
  - Probation Officers
  - Social Workers/Advocates
  - Nurses

“It was interesting to learn how clients who appear resistant to change or treatment may actually have an undiagnosed brain injury as a result of DV.”
Call to Action

- Community-based agencies develop protocols to screen
- Educate employees on BI
- Include voices of survivors in all stages of program development
- Develop additional resources and supports for survivors
Call to Action: Future Research

- Prevention
  - Identifying risk factors and/or at risk groups for targeted intervention

- Intervention
  - Development of specialized treatments that address needs specific to DV-related BI
    - Deeper understanding of neurocognitive profile
    - Consideration of co-morbid physical and/or psychological issues
  - Treatment evaluation
    - Association with outcome
Thank you!

Peggy Reisher, MSW, Executive Director
peggy@biane.org
402-890-0606

Kathy S. Chiou, Ph.D., University of Nebraska- Lincoln Assistant Professor
kchiou2@unl.edu
402-472-5843