

Risk of Repeat and Severe Partner Abuse Can We Predict? Can We Protect?

Chris O'Sullivan, PhD

Jacquelyn C. Campbell, PhD, RN

Janice Roehl, PhD

Daniel Webster, ScD, MPH

Risk Assessment Validation Study
National Institute of Justice (#2000-WT-VX-0011)
J. Campbell, C. O'Sullivan & J. Roehl, PI's

Safe Horizon, New York

Chris O'Sullivan, PhD, Co-Principal Investigator
Melissa White, MSW, Johanne Eliacin, MA, NYC Project Directors
Hillary Alicia Hawkins, Angelyn Gonzalez, Victoria Quiroz Becerra, Alicia Alvarez,
Raquel Suarez, Bonnie Glass, & Rosanna Bianco Interviewers

Justice Research Center, California

Jan Roehl, PhD, Co-Principal Investigator
Kristin Guertin, MA, LA Project Director,
Erin Soos, Research Assistant & Interviewer
Shamita Dhar, Lisette Macias, Shelly Gerrish, & Kate Semple, Interviewers

Johns Hopkins University School of Nursing

Jacquelyn Campbell, PhD, RN, Principal Investigator
Daniel Webster, ScD, JHU Bloomberg School of PH - Statistician
Patricia Mahoney, MA, & Heidi Lary, MPH Project Directors

“Prediction is very hard to do -
especially if it is about the
future”

Yogi Berra

Overview of Issues

- Demand for domestic violence risk assessment by criminal justice, advocacy, & health systems
- Low base rate of lethal IPV
- Relatively young science
- 4 interacting parts to consider - instrument, assessor, perpetrator & *one* specific potential victim
- Concern that risk assessment can be used to limit service to victims, not just to target
- High stakes for errors: False negatives – victim injured; False positives – defendants' rights violated, victims' lives disrupted unnecessarily, misuse of scarce resources

Purpose

- **Primary Aim: to test the predictive accuracy of methods of assessing risk of lethality, severe abuse, or any re-abuse in intimate relationships with a history of violence :**
 - **Danger Assessment**
 - **DV-MOSAIC**
 - **Victim's assessment**
 - **Items from other scales**
- **Control for (assess) protective actions that may reduce risk**

Secondary Aims

- Evaluate the impact of risk assessment on victims' self-perceived risk and self-protective behaviors
- Identify the strength of prediction of individual factors on four instruments and items drawn from other instruments and literature

Final Report Available at:

<http://www.ncjrs.org/pdffiles1/nij/grants/209731.pdf>

Other Risk Assessment Scales

Navy FAP
Risk & Safety

Victim & Offender -reoffending
& safety

Evaluation '02-05
(Stith, Milner)

SARA (Kropp et al)

Offender (criminal justice) -
reoffending

Evaluation '99
most data
Best w/perp
psych. eval

PSI (Duluth)

Victim & offender & system
(advocates & criminal justice)

Process evaluation
(CDC) - no outcome

K-SID (Gelles & Lyon)

Victim & offender - reoffend
(advocates & criminal justice)

Some evaluation
data

O.D.A.R.A. (Hilton)

Offender – criminal justice

77% under ROC

PAS (Dutton)

Offender – prevention –
Batterer Intervention

Cross sectional
validation

Lethality Risk Assessment

- DV-MOSAIC D – Computer assisted threat assessment system; 46 items but 150 variables - each item has several very separate responses; risk and protective factors (DeBecker & Associates)
- Danger Assessment – Revised DA has 20 yes/no items, weighted scoring & levels of danger based on risk factors from femicide study (Campbell et al., 2003)

DA and DV-MOSAIC also differ by

- System designed for:
 - Criminal Justice – DV-MOSAIC
 - Victim Advocacy, Health Care – DA
- Intended sources of information:
 - Victim & Criminal Justice Records – DV-MOSAIC
 - Victim – DA
- Assessor and process of gathering answers:
 - Advocate in collaboration with victim or by victim alone – DA
 - Threat assessment professional (e.g., detective) in collaboration with victim – DV-MOSAIC
- Administration of questionnaires in study resembled that for the DA (source & system) – may have given advantage

Self-Perceived Risk

(From Weisz, Saunders, & Tolman)

- How likely is it that your partner will be physically abusive with you in the next year? Please rate the likelihood from zero to ten, where zero means there is no chance, and ten means you are sure it will happen:

0 1 2 3 4 5 6 7 8 9 10

- How likely is it that your partner will seriously hurt you in the next year? Please rate the likelihood from zero to ten, where zero means there is no chance, and ten means you are sure it will happen:

0 1 2 3 4 5 6 7 8 9 10

Method

Design

Baseline (T1)

- Recruit participants from multiple sites where receiving services
- Take history of violence
- Frequency and severity of abuse and injuries last six months
- Protective actions
- Administer 2 risk assessments (random assignment)

Design: Follow-Up

Follow-up (T2): 4.5 - 24 mos (av. 8.8 mos)

- ❑ Assess violence experienced since T1
- ❑ Ascertain exposure to risk during that time
- ❑ Criminal Justice Records Check – 1 year later

Implementation Challenges

- Site agreements; personnel changes: 2000-01
- JHU IRB shutdown: Summer 2001
- Agreement with De Becker & Associates; change in Mosaic; translating DV MOSAIC training method into questionnaire: 2001-2002
- Safe Horizon redeployed: Sept.-Dec. 2001
- Continued personnel changes
- Uneven recruitment pace
- Follow-up while still doing baseline
- Usual issues with follow-up of abused women

Training & staffing – Jan. 2002 – Interviewer Manual

- Background – purpose of study
- Data collection procedures
- Obtaining informed consent
- Conducting interviews
- Ensuring victim safety
- Handling difficult situations
- Record keeping
- Reporting to central project staff
- FAQ

Abuse History and Outcomes

- At baseline:
 - Ever in relationship
 - Frequency in last six months
- At follow-up
 - Frequency since last interview

Measures of abuse

- Women's Experience of Battering
- HARASS: Stalking and harassment
- Revised Conflict Tactics Scale:
Physical and verbal abuse
- Severity of injury index

Protective Actions Measured:

■ Criminal/Civil Justice

- Order of protection
- Called 911
- Arrest

■ Services

- Counseling/advocacy
- Legal assistance
- Help with/for children

■ Safety planning

- Left important documents or keys in safe place
- Told family/friends/ neighbors she might need help

■ Security measures/Self-defense

- Got cell phone, home alarm
- Changed locks
- Got something to protect herself (mace, pepper spray, weapon)

■ Avoiding contact

- She went someplace where he could not find her
 - Hotel, friends or relatives
 - Relocated
 - Shelter
- He was someplace where he could not access her (prison/jail, residential Rx, military, out of state or country)
- They did not see each other because one or both chose not to

Impact of the questionnaire – baseline and follow-up

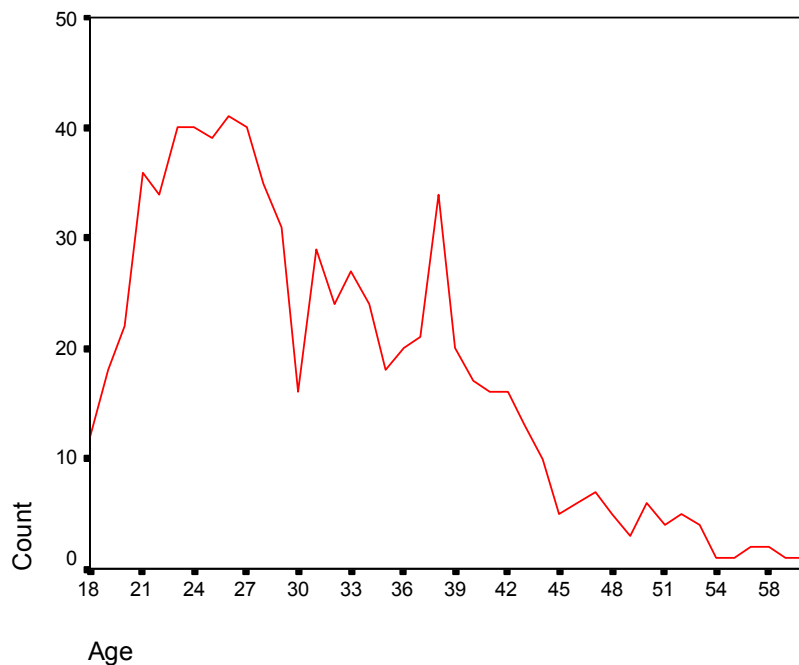
- 1) Self-perceived risk questions given at beginning and end of questionnaire to detect change after interview
- 2) Did answering these questions change your view or thinking about his behavior?
- 3) Do you think you will do anything differently in the future as a result of answering these questions (such as taking more safety precautions, or fewer; spending more or less time with him, etc.)?

Women Severely Abused at Baseline

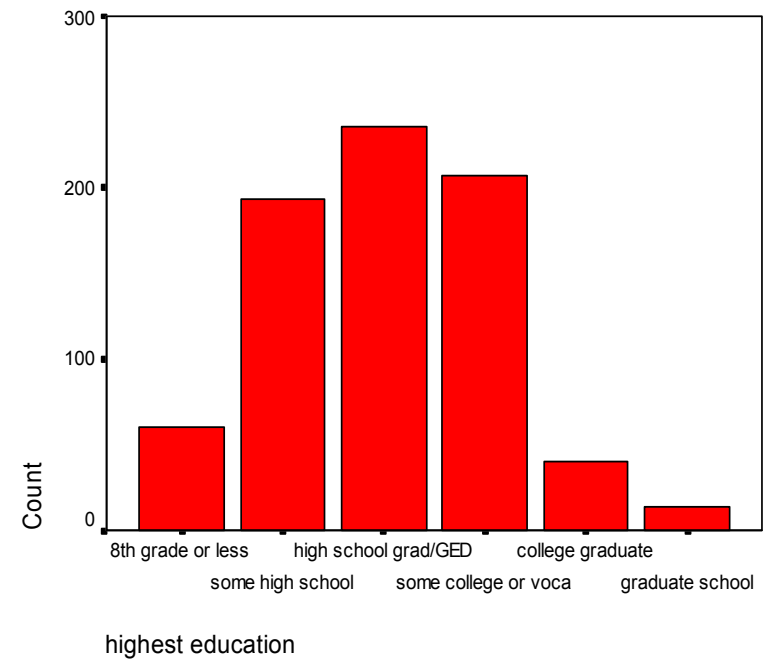
- 45% - partner had used a knife or gun on her, choked her, or “tried to kill” her in past 6 months
- 43% - partner inflicted CTS2 “severe” acts *3 or more times* in past 6 months (punched, choked, beat up, forced sex, used knife or gun, etc.)

Sample Characteristics: Respondents

AGE
Mean Age= 30.96

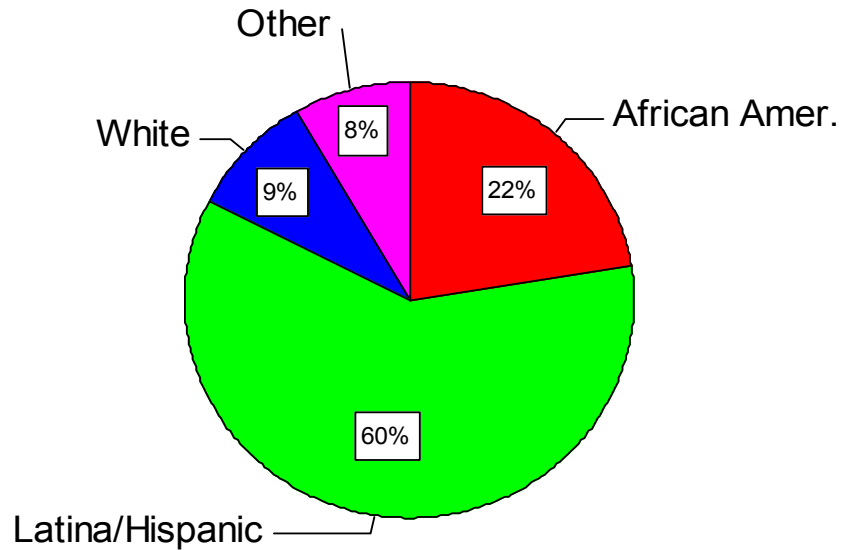


EDUCATION

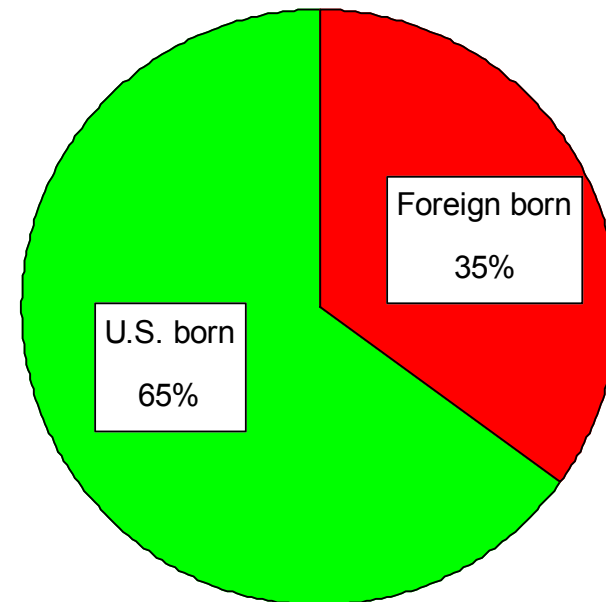


Sample Characteristics: Respondents

RACE/ETHNICITY



NATALITY



Retention by Research Site (Help-seeking sample at T1)

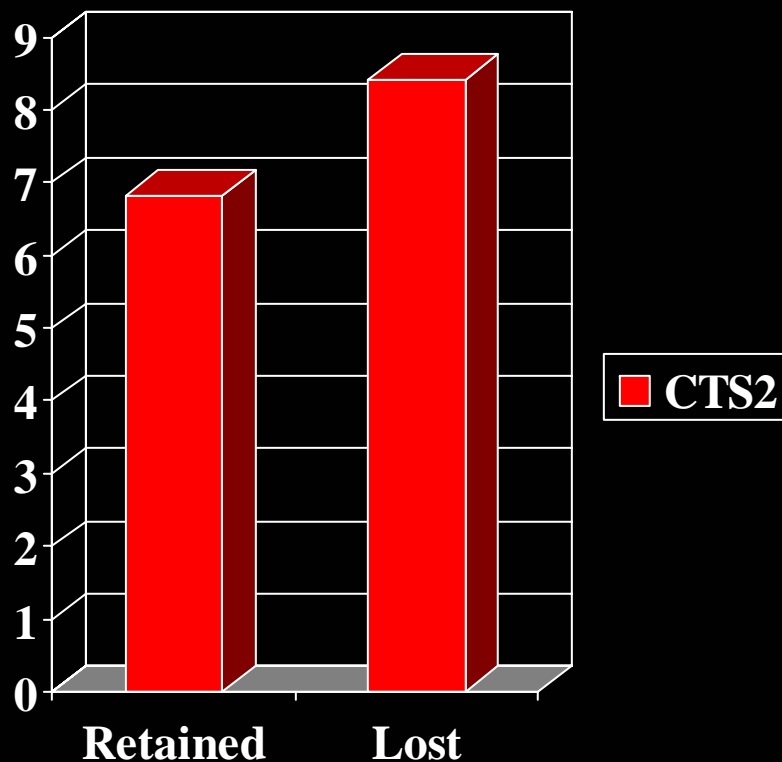
Recruitment Site (n at T1)

T2 Retention Rate

NYC Family Courts (628)	61%*
LA Sheriff's Dep't. (400)	67%
NYC Shelters (177)	45%
LA Shelter (58)	33%
NYC Hospitals (28)	50%
SH Community Offices (11)	64%
<i>Total (1307)</i>	<i>60% (782)</i>

*Retention rates in Family Courts ranged from 70% in Brooklyn, which also had the highest recruitment rate, to 52% in Queens.

Difference Between Those Retained & Lost at Follow-Up



■ Significantly more likely to be retained:

- Latinas
- homemakers

■ Significantly more likely to be lost:

- unemployed
- higher scores on CTS2

Relationship status at baseline of sample retained at follow-up (N = 782):

RELATIONSHIP at Baseline	
Ex-boyfriend	43% (46% T2)
Estranged/ex-husb/ex-common law	19% (22% T2)
Husband/common law	29%
Boyfriend	9%
Currently living together	20% (14% T2)
Respondent has children in home	86%
Respondent works full or part time	44%

Protective measures present at baseline among victims retained at follow up (n=782)

	<u>n</u>	<u>%</u>
not cohabitating or intimate	541	69
got order of protection	521	67
abuser arrested for baseline incident	267	34
went somewhere he couldn't see her	247	31
got new locks and/or alarms	321	41
went to shelter	106	14
got mace or other weapon for protection	94	12
received safety planning advice	53	7

Abuse at T2

- 31% had been re-assaulted by self report
- About half relatively minor, half severe
- 9% reported attempts to kill; 33% potentially lethal acts
- Including stalking, psychological abuse & controlling behavior – only 16% abuse free
- Yet only 6% of perpetrators arrested for DV in follow-up period (11% for other violent crimes)

8 Point Outcome Scale by Victim Report - Combination of Acts & Injury

- None
- Verbal: Calls names, degrades
- Psychological Abuse/Harassment
- Stalking/threats
- Physical Abuse: Low (Twisted arm/hair, grabbed, pushed/shoved; Caused sprain, bruise, small cut)
- Physical Abuse: Mod (Punched, kicked; lasting pain)
- Physical Abuse: High (Choked, beat up; Serious Injury)
- Physical Abuse: Very high (Tried to kill, weapon; life threatening injury)

*Participants are categorized by the highest level of abuse they reported

Correlations: Risk assessments & subsequent abuse severity

	8 point abuse severity scale	Severe Physical Abuse (CTS2)
Danger Assessment (1/2 sample)	.38*	.25*
DV Mosaic (1/2 sample)	.20*	.17*
Victim's Perception of Risk (all)	.22***	.15***

*p < .05; ** p < .01; *** p < .001

Danger Assessment Risk Score x Abuse Experienced at T2

	Danger Assessment Score			
Abuse experienced since last int.	Low (68)	Med (99)	High (80)	V high (153)
0/verbal	53	56	40	60
Stalking/ threats	4	15	10	30
Low PA	8	10	8	13
Med PA	0	6	0	6
High PA	2	7	10	12
V high PA	1	5	12	32

DV Mosaic Score x Abuse Experienced at T2

DV MOSAIC Score

Abuse experienced since last int.	Med 3-4 (23)	High 5-7 (225)	V high 8-10 (134)
0/verbal	18	127	59
Stalking/ threats	1	31	35
Low PA	3	29	9
Med PA	0	10	4
High PA	1	10	7
V high PA	0	18	20

Victim Perception of Risk x Abuse Inflicted Since Last Interview

Any abuse: How likely that yr partner will be physically abusive in next year

Severe abuse: How likely that yr partner will seriously hurt you in next yr.

Cate- gories	Victim rating		Outcome	
	Any abuse	Severe abuse	Any abuse	Severe abuse
Low 1-4	313	355	73	45
Mod 5	93	87	34	18
High 6-10	343	303	134	75

4-Quadrant Model of Prediction

	Violence (severe) occurred	No (low) violence occurred
Violence (Severe) Predicted	True Positives Sensitivity= $TP/TP+FN$	False Positives
No (low) violence Predicted	False Negatives	True Negatives Specificity= $TN/FP+TN$

Sensitivity & Specificity: DA levels of risk X *any re-assault*

	Sensitivity TP/TP + FN (max=1)	Specificity TN/TN+FP (max=1)	Combined (max=2)
DA			
■ Mod low	.92	.22	1.14
■ High	.70	.49	1.20
■ Very High	.48	.68	1.16

Sensitivity & Specificity: DV Mosaic Levels of Risk x Any Reassault

	Sensitivity (max=1)	Specificity (max=1)	Combined (max=2)
DV-MOSAIC			
□ Moderate	.83	.07	.90
■ High	.36	.68	1.04

Sensitivity & Specificity: Victims' Perception of Risk & Any Re-Assault

	Sensitivity	Specificity	Combined
Victim Perception			
■ Moderate	.70	.47	1.17
■ High	.56	.59	1.15

Area under the ROC Curve – Controlling for Protective Actions (Including no contact - jail, shelter...)

	Any Re-assault	Severe Re-assault
Danger Assessment	.67 ***	.69 ***
DV Mosaic	.595 *	.62**
Victim Perception	.62 ***	.62***

*p <.05; ** p < .01; *** p < .001

(Adding Criminal Justice data decreases accuracy of all measures)

Predictive Models Controlling for Frequency of Event & Protective Actions (Wald statistic)

	Stalking	Minor/Mod	Severe
DA	15.14***	9.58**	27.64***
DV-MOSAIC	16.27***	.89	4.80*
Victim Perception	.91***	.12	20.01***

Items on instruments/methods that predicted risk of severe abuse

- Used weapon in past or current incident (DVSI)
- He threatened to kill you (DA)
- He is constantly and violent jealous (DA)
- He carries a gun for his job (non-red)
- He does things to make you think you are crazy or losing your mind (non-red)

Challenge: dynamic relationship between assault and protective strategies

Time 1

assault → awareness → protection → re-assault

Time 2

Or

Time 1

assault → awareness → re-assault → protection

Time 2

Timing problem: Protection measured at T2 “since last interview.” Don’t know if protective action at T2 was prompted by assault during follow-up interval vs. action ineffective.

Protective measures during follow-up

	%
got alarm	4
got a weapon (e.g., mace, few guns)	13
left keys and documents with friend, family	28

Protective measures during follow-up

	%
No cohabitation or intimate relationship	37
No voluntary contact with abuser	43
Stayed in shelter	11
Stayed with family or friends	7
Victim left town	7
Changed locks	35

% taking protective actions during follow-up by victim perception of risk of serious harm.

Protective actions at follow-up	Low	Med.	High
no voluntary contact with abuser	32	44	52
occasional contact with abuser	34	41	45
someplace he couldn't find her	34	33	32
went to shelter	12	17	14
victim left town	4	9	9
new locks	26	34	45
mace or oth. weapon (few guns)	8	12	18

Bivariate correlations: abuse (T1), perceived risk (T1), protections (T1), and protective actions (T2)

	abuse T1	perceived risk T1	protections T1	protections T2
abuse T1	1			
Perceived risk T1	.27**	1		
protections T1	.32**	.30**	1	
protections T2	.29**	.24**	.43**	1

Outcome Measure for Examining Protective Factors Effects

- 4 hierarchical categories of re-assault:
 - no physical, sexual abuse or stalking
 - stalking, serious threats of violence
 - mild-moderate physical violence (punch, kick)
 - severe physical violence (beat up, burn, “choke,” use of knife or gun, attempt to kill)

Effects of protective actions on **severe** re-assault during follow-up

Baseline report	e^B	Wald	p
Not cohabitating or intimate	0.95	0.1	.832
No voluntary contact with abuser (T2)	1.07	0.1	.757
Went someplace he couldn't find her	1.92	6.2	.013
Shelter	0.40	6.8	.007
Got protective order	1.13	0.2	.643
Filed criminal complaint	1.41	2.14	.143
Abuser arrested for T1 incident	0.62	4.0	.044

Effects of protective actions on **minor-moderate** re-assault during follow-up

Baseline	e^B	Wald	p
Not cohabitating or intimate	1.37	1.54	.215
No voluntary contact with abuser (T2)	0.28	19.7	<.001
Went someplace he couldn't find her	1.57	2.2	.137
Shelter	0.30	5.6	.018
Got temp protective order	0.60	4.4	.045
Filed criminal complaint	0.90	0.2	.673
Abuser arrested for T1 incident	0.84	0.04	.839

Effects of protective actions on **stalking** during follow-up

Baseline	e^B	Wald	p
Physical abuse sev./freq.	0.94	1.2	.265
Not cohabitating or intimate	2.78	11.6	.001
No voluntary contact with abuser (T2)	1.03	0.01	.905
Someplace he couldn't find her	2.10	6.7	.010
Shelter	0.72	0.8	.371
Got temp protective order	1.76	4.4	.036
Filed criminal complaint	1.66	4.5	.033
Abuser arrested for T1 incident	0.77	1.2	.268

Effects of the number of protective actions on assault and stalking

<i>Severe Assault</i>	e^B	Wald	p
# protective actions at baseline	0.97	0.1	.717
# protective actions during follow-up	1.28	4.8	.029
<i>Minor to moderate physical assault</i>			
# protective actions at baseline	0.93	0.9	.352
# protective actions during follow-up	0.69	6.5	.011
<i>Stalking and threats</i>			
# protective actions at baseline	1.37	16.1	<.001
# protective actions during follow-up	1.20	2.8	.093

Relationship Status at T1 & T2

	Sharing home	Occasionally intimate – not living together	Not intimate Not cohabiting
T 1	21%	7%	72%
T2	16%	5%	79% (46% some contact; 54% none)

Comparison T1 & T2 Relationship Status

Rel. Status Baseline	Relationship Status at Follow-Up			
(N=778)	Share home	Intimate not cohab	Not intim contact	Not Intim no contact
Share home (178)	45%	5%	32%	18%
Intimate not cohab (61)	18%	15%	31%	36%
Not intim, not cohab (539)	5%	4%	39%	52%

Visitation during Follow-Up

- 75% children in common with abuser
- 52% - abuser having visits w/ children
- 51% of visits by court order
- Unsupervised – 73%
- Supervised – 27%
- 24%: Physical abuse, threats or intimidation during exchange for visits

Conclusions re: protective actions' effects on re-assault

- Going to shelter at T1 significantly reduced risk of severe and moderate assaults
- No voluntary contact with abuser during follow-up reduced risk of moderately severe assaults
- Arrest at T1 reduced severe assaults
- OP/RO reduced moderate assaults
- Many protective actions at T2 likely to be response to assaults during follow-up

Impact of the questionnaire

- Repeat of self-perceived risk questions: ns
- Did answering these questions (CTS, 2 risk questionnaires, self-protective questions) change your view or thinking about his behavior?
 - No effect - **64%**
 - More abusive or dangerous than I thought – **29%**
 - Less abusive or dangerous than I thought – **7%**
- Do you think you will do anything differently in the future as a result of answering these questions (such as taking more safety precautions, or fewer; spending more or less time with him, etc.)? **61% yes**

Assessing Risk of Further Intimate Partner Violence: What Methods Work Best?

Are They “Good Enough?”

Conclusions on Risk Assessment Instruments/Methods

- Both methods and the victim's own perception were significantly related to subsequent abuse and severity of abuse.
- Highest correlations: DA and victims' perception of risk.
- Followed by the DV-MOSAIC – which was more predictive of stalking.
- BUT, are they “good enough?”

Further Conclusions

- Risk assessment methods correctly classified most women who were indeed re-assaulted (i.e., they showed high sensitivity).
- Also a high rate of misclassifying many women as at risk who did not experience re-assault (i.e., they showed low specificity).

Victim's Perceptions of Risk and Protective Actions

- Victims are fairly good predictors of their own risk, but not accurate enough to depend on alone.
- Victims' perceptions of risk may incorporate both risk and protective factors – controlling for protective actions taken does not improve their predictions much.

Additional Conclusions with Implications for Practitioners

- Criminal justice records underestimate repeat victimization.
- Results indicate that protective actions do reduce the incidence of re-assault.

Further Research on Risk Assessment Methods

- Further research is needed.
- Need to compare the methods with expert judgment.
- Development of a short screen for first responders (victims' perception of risk? Item analysis?).
- Additional analysis of risk factors.

Recommendations for Practitioners

- Cannot recommend a particular instrument or method. Risk assessment science is young.
- Ask the victim her perception of risk and take heed of her judgment.
- Continue to assess risk with all means available.

Recommendations, cont.

- Where victim safety is paramount, use lower risk categories on formal methods.
- Where offenders' rights (e.g., sentencing, pre-trial release, bail) and/or scarce system resources are the greatest concern, use higher risk categories for sanctions or services.