## L'évaluation actuarielle des risques de violence dans les cliniques de lutte à la violence conjugale basées dans les hôpitaux

#### N. Zoe Hilton, Grant T. Harris et Norah Holder

En réponse à la violence conjugale, la collectivité a récemment mis sur pied des cliniques de lutte à la violence conjugale basées dans les hôpitaux, une ressource qui s'ajoute à d'autres outils d'intervention. Dans le cadre de cette étude, 66 % des 111 femmes qui fréquentaient des cliniques en milieu hospitalier pour cause de violence conjugale ont subi des blessures physiques et 43 % d'entre elles ont reçu des menaces de mort. Peu d'entre elles recouraient en même temps à d'autres services (maisons d'hébergements ou services policiers) et la plupart comptaient sur l'aide d'amies ou de membres de leur famille. Nombre de participantes qui vivaient toujours avec leur partenaire agresseur envisageaient la possibilité de le quitter. Toutefois, un tiers seulement avaient fait des projets concrets pour passer à l'action. Les participantes étaient exposées à un risque de futures agressions exceptionnellement élevé, selon les deux entrevues réalisées auprès des victimes à l'aide de la méthode d'évaluation actuarielle de risques ODARA et selon leurs propres perceptions. Les résultats indiquent que les cliniques de ce type jouent un rôle important et que les mêmes outils d'évaluation actuarielle des risques peuvent être utilisés tant dans les secteurs de services aux victimes que dans le milieu de la justice pénale.

Mots clés : violence conjugale, évaluation de risques

## Actuarial Assessment of Violence Risk in Hospital-Based Partner Assault Clinics

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Hospital-based partner assault clinics are a relatively recent addition to the community response to partner violence. In this study, 66% of 111 women attending hospital clinics for partner assault were physically injured and 43% reported death threats. Few concurrently used other services (shelters or police) and most relied on female friends and relatives for help. Many participants who currently lived with the perpetrator were contemplating leaving but only a third had made plans to do so. Participants faced an unusually high risk of future assault, according to both victim interview using the ODARA actuarial risk assessment and their own perceptions. Findings imply an important role for partner assault clinics and the feasibility of the victim service sector's using the same actuarial risk assessments as the criminal justice system.

Keywords: partner assault, nursing, injury, risk assessment

The health costs of partner violence have been estimated in the billions of dollars (e.g., Zink & Putnam, 2005). Yet the need for general hospitals to be part of an effective community response to partner assault has been acknowledged only recently, following rapidly expanding nursing research into the effects and risks of violence (e.g., Campbell & Henderson, 2006). Seminal work by Stark and Flitcraft (1996) revealed that as many as 25% of all women presenting at a hospital emergency department could be identified as having been assaulted based on medical history, whereas fewer than 3% were identified by the medical staff. Statistics indicating prevalence as high as 34% have been reported internationally (Bateman & Whitehead, 2004; MacMillan et al., 2006; Ramsden & Bonner, 2002). Often, women murdered by a spouse had sought help from a hospital or clinic in the year preceding the femicide (Sharps et al., 2001). The presence of extensive partner assault limits the effectiveness of nursing interventions for child maltreatment (Eckenrode et al., 2000). Stark and Flitcraft (1996) urge that hospitals identify and provide services for battered women.

Assaulted women are unlikely to disclose the violence unless asked directly — they want health professionals to ask how the injuries occurred (e.g., Ramsden & Bonner, 2002), especially in emergency

departments (Kelly, 2006; McMurray & Moore, 1994). Suggested policies, procedures, and screening questions for partner assault have been published (e.g., Bonhomme & Ratcliffe, 1999; Datner, Wiebe, Brensinger, & Nelson, 2007; Davison, 1997; Ernst, Weiss, Cham, Hall, & Nick, 2004; Furniss, 1998; Houry et al., 2004; Ramsden & Bonner, 2002; Rhodes & Levinson, 2003; Weiss, Ernst, Cham, & Nick, 2003; Zimmerman, 2005) and evaluated (MacMillan et al., 2006; Thurston & Eisener, 2006). Screening in emergency departments has identified women at risk for repeated violence (Houry et al., 2004) and for medical problems during pregnancy (Datner et al., 2007). Screening for partner violence has been well received by female patients (Bateman & Whitehead, 2004; Dienemann, Glass, & Hyman, 2005; MacMillan et al., 2006; Zink & Jacobson, 2003). Furthermore, talking to health-care providers about the abuse is associated with increased intervention and more positive outcomes among abused women (McCloskey et al., 2006). Nurses, however, express concerns about privacy, workload, insufficient expertise, discomfort with partner assault, and lack of follow-up for victims (e.g., Glowa, Frasier, & Newton, 2002; Hollingsworth & Ford-Gilboe, 2006; Janssen, Landolt, & Grunfeld, 2003; Johnson, 2001; Minksy-Kelly, Hamberger, Pape, & Wolff, 2005). Specially trained nurses and partner assault clinics are a potential response to these concerns.

### The Niche for Hospital-Based Services

Shelters for battered women originated in the 1970s. Most women who use them expect to end their relationships (Martin et al., 2000), thereby shortening their exposure to the abusive conditions (Panchanadeswaran & McCloskey, 2007). The process of leaving takes time (e.g., Furniss, 1998) and can be influenced by needs other than the woman's protection from violence (Wooldredge & Thistlethwaite, 2006). In contrast, despite pro-arrest policies in law enforcement, which emerged in the 1980s, some women who call the police wish to continue the relationship and do not necessarily anticipate the full weight of the criminal justice system (e.g., Hare, 2006). There is an evident gap in services for battered women who have decided neither to end the relationship nor to initiate a criminal justice response. Hotlines and community counselling centres are options, but a woman can go to an emergency department for in-person help 24 hours a day without it being obvious (including to her partner) that she is seeking help for partner violence.

Hospital-based domestic violence programs have rapidly proliferated since the 1990s, and standards for evaluating their structure and process have been developed (Coben, 2002). There is an emerging literature on evaluation in shelters and sexual assault programs (e.g., Riger et al.,

2002), but little is known about the characteristics of assaulted women who seek help from hospitals. Furthermore, while screening for abuse within health-care settings has received much attention, screening for the risk of future violence has not.

#### Objective Measurement of Recidivism Risk

One impediment to effective, coordinated community responses to partner assault is the absence of a common means to determine who is at risk. Without a shared ability to identify and communicate the likelihood and severity of repeated assault, health-care providers and policymakers have no consistent way to set priorities and ascertain whether services are being directed to the most appropriate cases. While victims can predict repeated violence reasonably well (Cattaneo & Goodman, 2003; Hilton et al., 2004; Weisz, Tolman, & Saunders, 2000), they can be overly optimistic (Martin et al., 2000), leading Nicolaidis et al. (2003) to discourage relying on women's perceptions of their own safety. Several tools have been developed to assess the risk of domestic assault. We have reviewed these in detail elsewhere (Hilton & Harris, 2005). An evaluation of the Danger Assessment, DV Mosaic, DVSI, and K-SID found that they all statistically predicted re-assault but that only the Danger Assessment consistently outperformed victims' predictions (Roehl, O'Sullivan, Webster, & Campbell, 2005).

Tools derived from empirical research and statistical methods yield the most accurate prediction for a variety of medical and psychological outcomes (e.g., Ægisdóttir et al., 2006), especially for violent recidivism (e.g., Grove, Zald, Lebow, Snitz, & Nelson, 2000), including partner violence (Hilton & Harris, 2005). The 13-item Ontario Domestic Assault Risk Assessment (ODARA; Hilton, Harris, & Rice, in press) is the only published assessment tool for risk of repeated partner assault that used empirical item selection and risk estimates conducted with reference to actuarial tables. It predicted recidivism in a sample of 589 men with a police record for partner assault (Hilton et al., 2004) and in separate replications on new cases (Hilton et al., 2004; Hilton & Harris, in press; Hilton, Harris, Rice, Houghton, & Eke, 2008). Originally used by police services, the ODARA has the potential to be a tool to aid communication and service coordination across criminal justice and victim service sectors.

The present study was designed to profile women attending partner assault clinics, especially with respect to level of risk and severity of injuries ascertained primarily from a routine nursing care assessment. To explore the extent to which women were using the clinics exclusively and the status of the relationship, we examined participants' use of shelters, police services, and informal support and their stated expectations

regarding the abusive relationship, including perceived risk of repeated assault. We expected to find that most participants had been injured by a current abusive partner but that few had contacted either the police or a shelter. Pilot testing with 25 assaulted women in shelters showed that these women had experienced more severe assault and injury than women in general surveys (e.g., Bennice, Resick, Mechanic, & Astin, 2003; Dobash, Dobash, Wilson, & Daly, 1992; Graham-Kevan & Archer, 2003). On a five-point scale (0 = none; 5 = wounds from a weapon), their injuries averaged 2. ODARA scores indicated an average risk of recidivism much higher than in any of the four development and validation samples. This pilot work also showed that the ODARA could be scored from a client interview by victim service providers.

#### Method

#### Setting and Participants

The research protocol was developed in partnership with two Sexual Assault/Domestic Violence Treatment Centres (SADVTCs) — hospitalbased clinics providing emergency medical and nursing care, crisis intervention, forensic evidence collection, medical follow-up, and counselling to people who recently have been sexually assaulted or experienced domestic violence. Women may either refer themselves directly by visiting the hospital emergency department or be referred after an abuse screening disclosure there. Some clients are also brought by police, and SADVTC staff sometimes go to shelters to assess clients. The two SADVTCs in this study were located in hospitals in the Canadian province of Ontario serving urban populations (25,000 and 45,000) and surrounding rural populations, including English-speaking, French-speaking, and First Nations communities. The authors tailored the ODARA items for use in client interviews. Clinic nurses suggested further refinements to interview questions and the protocol for documenting responses. The ODARA interview and scoring materials and other study questions were translated into French, but the training sessions and printed ODARA instructions for staff were in English only.

Women assessed in the period 2003 to 2006 at the two participating SADVTCs after an assault by a male partner were eligible to participate. Prior to assessment, each client was informed by nursing staff about the study, including (a) its goals; (b) the research procedure, including 5 minutes of additional questions during the assessment and a researcher review of her hospital record; (c) the fact that the data would be treated in a confidential and secure manner and that only group information would be reported; (d) care and treatment would continue as usual if the woman did not consent; and (e) the woman could change her mind after

giving consent during the assessment or after leaving the hospital. Participants were also given a toll-free phone number for the principal researcher, but no calls were received. No record was kept of women who declined to participate, but all eligible clients of one clinic participated and staff at the other clinic noted that about five clients declined to participate due to time constraints (e.g., attending the centre on their lunch hour).

#### Measures and Procedures

The 13-item ODARA was part of the routine assessment conducted by SADVTC nurses; Appendix 1 shows the questions used to solicit information to score the ODARA. The nursing assessment included personal statistical information (e.g., age, children, living situation including use of shelters), details of the current assault (date, time, physical tactics used, threats, use of firearms, whether police attended), its effects (extent and location of injuries, the woman's emotional reaction), and assault history (number, duration, frequency, and severity of previous assaults; the woman's perception of increasing frequency and severity of violence). The nature of the current assault was recorded using the revised Conflict Tactics Scales (CTS2; Straus, Hamby, & Boney-McCoy, 1996), as were potentially more lethal acts (e.g., stabbing, burning, strangulation, gunshot, pushing from a vehicle). No follow-up data were collected to test the predictive accuracy of the ODARA. Because a violence risk assessment ought to be associated with the severity of assault, we examined the correlation of these aspects of the nursing assessment with those of the ODARA as a measure of its construct validity. Overall injury was coded from the hospital file on a scale of 1 (no injuries) to 5 (wounds from weapon).

For this study, participants also indicated whom they called *if you need help or just to talk*, from a list that included a variety of male and female friends, relatives, professionals, and *I have no one I can talk to*, as a way to characterize their support network and supplement information on concurrent use of other services. Participants rated the likelihood of experiencing an assault within the next year on a scale from 0 (no chance of this happening) to 10 (sure to happen). Each woman also reported whether she had thoughts about or plans for leaving the relationship, whether the perpetrator knew she wanted to leave, whether she had tried to leave before, and whether the perpetrator stalked her (followed her or waited at her home or her place of work, bothered her with phone calls or messages, tried to find out about her through her family or friends, entered her home or damaged her property, or threatened her face-to-face or in a message). These questions were included because stalking is thought to be a risk factor for violence, though its actual association with

risk is not known (e.g., Campbell, Glass, Sharps, Laughon, & Bloom, 2007); also, stalking creates fear in victims (e.g., Eke, 1999), which might increase their perception of risk.

The accuracy with which data were transcribed from the study forms and hospital records was assessed in a 10% sample of cases coded independently by two research assistants. Pearson correlation coefficients (r) of the two codings were calculated for each variable and indicated almost perfect agreement, rs (12) > .99.

#### Results

Of the 111 participants, 71% were from the larger community and 29% from the smaller community. Participants ranged in age from 18 to 53 years (M = 36.2; SD = 10.0) and over half were currently living with the perpetrator, most cohabiting (39%) as opposed to being legally married (21%). A few (7%) were only dating the perpetrator. Duration of relationship ranged from 1 month to 31 years (M = 9.9 years; SD = 7.0). Most participants (60%) had children under the age of 16 years. Most (79%) had been previously assaulted by the perpetrator, beginning up to 30 years earlier (M = 5.5; SD = 7.0).

One third (38%) of those participants who were currently living with the perpetrator reported trying to end the relationship. Two thirds (66%) of participants had an injury due to the current assault, the most common site being the arm or hand (45%), followed by the face (37%). Such injuries are consistent with a woman's attempt to shield herself with her arms during an attack on her face or upper body. The vast majority (92%) received only bruises and cuts, yielding a mean of 2.1 (SD = .61) on the five-point injury scale. There were nine cases of burns, broken bones, or contusions requiring stitches. One woman sustained internal injuries from a violent sexual assault by her common-law partner and one woman was slashed with a razor blade. One victim was beaten, stabbed, and slashed in the throat by her ex-husband, resulting in the sole overnight hospitalization in this sample. Acts of violence in the current assault included pushing (64%) and hitting (52%), but more brutal acts such as strangling (29%), kicking (20%), and sexual assault (11%) were also reported. A sizeable minority (43%) of women who were currently living with the perpetrator experienced death threats, and a small minority exhibited fear during the nursing assessment (13%).

## Construct Validation of the ODARA

Three participants reported no physical assault and are excluded from the remaining results. According to participants' responses, the mean ODARA score for the perpetrators was 7.3 (95% CI = 5.8, 7.7), which is

in the highest actuarial category (Hilton et al., 2004), skewness = -.06 (SD = .23), kurtosis = -.12 (SD = .46), Kolmogorov-Smirnov Z = 1.05, p = .22. Although this average is higher than that found in ODARA research using police reports, the scores did show a full range and a normal distribution indicating statistical properties similar to those of the original research. Also, the 13 ODARA items had the same internal reliability ( $\alpha$  = .65) as the original construction using police archives. ODARA score was positively associated with measures of the severity of the current assault, including the perpetrator's use of severe violence as measured on the CTS, r = .25, p < .01, sexual assault, r = .22, p < .05, the five-point injury scale, r = .25, p < .05, and presence of potentially lethal acts (including, in this sample, stabbing, strangulation, and throat slashing), r = .19, p = .05. ODARA score was also associated with prior medical treatment for assault by the perpetrator, r = .26, p < .01. All of these findings show that ODARA scores exhibited the properties expected of this actuarial assessment of violence risk, providing evidence of construct validity in this first transition from a police tool to a victim service tool.

There was also a significant correlation between ODARA score and prior stalking, such that perpetrators with higher risk scores exhibited more stalking behaviours, r = .32, p < .001. Greater risk was associated with breaking into the woman's home, M = 8.9 (95% CI = 7.6, 10.3) versus not, M = 6.9 (95% CI = 6.4, 7.4); making bothersome phone calls, M = 8.2 (95% CI = 7.4, 9.0) versus not, M = 6.8 (95% CI = 6.3, 7.0); using family and friends to find out about her M = 8.2 (95% CI = 7.3, 91.) versus not, M = 6.9 (95% CI = 6.9, 7.4); and following her and waiting at her home or workplace, M = 8.1 (95% CI = 7.1, 9.1) versus not, M = 7.0 (95% CI = 6.4, 7.5).

## Participants' Perceived Risk and Use of Services

Perceived likelihood of violence by the perpetrator in the next year was skewed towards the maximum rating, M = 7.9 (SD = 3.0), with 53% of those who responded giving a maximum rating of 10; however, these ratings were not correlated with ODARA score after removal of the ODARA item on victim concern about future violence. Participant ratings were most strongly associated with reports of increasing severity of the violence (61% of participants reported that assaults were becoming more violent), r = .29, p < .05, but not with perceived increase in frequency of assault (65%), r = .02, ns.

Police were involved in a minority (13%) of the cases, and five women were residing in a shelter at the time of their participation. The 19 participants using police or shelter services were not at significantly different risk of partner violence, according to ODARA scores M = 6.8 (95% CI = 5.5, 8.2) versus M = 7.3 (95% CI = 6.8, 7.8). Interestingly,

the women were more likely to report that they would call a professional (therapist, clergy, lawyer) than the police (32% vs. 20%). Most participants reported that they would call a female friend (56%) or a female biological relative (55%) for help or just to talk. The inclusion of in-laws in the support network (14%) was significantly less prevalent than all other options.

#### Discussion

In this study with 111 women at hospital partner assault clinics, injuries were reported by two thirds of the participants. Injuries consisted primarily of bruises and minor cuts and the most common injury sites were the arm or hand and the face. Most women (91%) had someone they would call for help, primarily a female friend or female biological relative, followed by a professional. Few women chose to access the police or a shelter. Calling the police was the least popular option other than using the perpetrator's family for support, which suggests that partner assault clinics are helping an otherwise underserved group. The women's reliance on friends and relatives suggests that there may be a place for public health education about empirically established risk factors for violence. Most of the participants who still lived with the perpetrator were thinking about leaving, but half had not made formal plans — a contemplation stage illustrated by the comment of one participant: "I don't know if I'm coming or going...can't let go."

According to participants' responses, the perpetrators' average scores were in the highest category of the ODARA, an actuarial risk assessment (Hilton et al., 2004). Risk was associated with several measures of assault severity, including the use of severe violence, sexual assault, injury severity, and potentially lethal acts, as well as with prior injuries and treatment for partner assault. These findings lend construct validity to the use of the ODARA in a victim interview. A limitation of this study is that we did not follow up the participants to obtain outcome information; future research is needed to establish the predictive validity of the ODARA clinical interview based on either victim reports or official records of violence perpetrated in the future.

The acceptance of the ODARA by women attending partner assault clinics, the psychometric properties of ODARA scores, and the association of these scores with assault severity indicate that the ODARA clinical interview is feasible for use when the primary source of information is the victim and when a primary concern is not just the occurrence of assault but also its severity.

Participants gave high ratings to the likelihood of repeated partner assault. In contrast to this finding, Weisz et al. (2000) report that women

whose partners had been criminally convicted perceived minimal chance of a future assault. The high ratings found in the present study are closer to ratings by women whose partners had recently been arrested (Cattaneo, 2007). Thus, perceived risk might be influenced by the amount of time elapsed since the last assault. One aspect of the present study that limits its comparability with previous research on women's risk perceptions is that the participants completed the actuarial risk assessment prior to reporting their own prediction. Further research quantifying women's predictions before versus after feedback about actuarial risk, and exploring women's reactions to this information, could add to our knowledge about how women appraise their own risk. Future research could also compare assaulted women's predictions across time and stages of decision–making.

In the present study, stalking was associated with actuarial risk of repeated assault but not with victims' predictions. It is unknown whether participants in the studies by Cattaneo (2007) and Weisz et al. (2000) had been stalked. Little is actually known about the predictive utility of stalking, over and above establishing risk factors for violence. Future research into the risk of repeated violence in stalking cases could benefit victims' psychological well-being and safety planning.

In conclusion, this study presents the first profile of women undergoing nursing assessment at hospital-based partner assault clinics. These clinics appear to fill a unique and important role in coordinated community responses to domestic violence. Hospitals are the only realistic source of help for assaulted women who, regardless of the severity of their physical injuries, want help at short notice without involving the police and without having resolved to leave the perpetrator. Such women see themselves as in great danger, consistent with an objective actuarial assessment. With full medical services available and an actuarial tool to communicate risk effectively to clients, police, and shelters, hospital-based clinics have a valuable role to play in a network of services for assaulted women. To the extent that recent assault is associated with a peak in victims' fear of future violence, clinic nurses serve a clientele who are at a pivotal point in terms of openness to information about health care, actuarial risk, and the need for safety planning.

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#### Appendix 1 ODARA Clinical Interview Questions

- 1. Threat. This time, did he threaten to harm or kill you or anyone else?
- 2. *Confinement*. This time, did he do anything to prevent you leaving the location?
- 3. Substance Abuse. Did he drink alcohol just before or during this assault; did he use drugs just before or during this assault; did he abuse alcohol or drugs in the few days or weeks beforehand; did he abuse alcohol or drugs more than usual in the few days or weeks before; is he more angry or violent when he uses drugs or alcohol; has he ever been charged for a crime when drinking; has he had an alcohol problem since he was 18; has he had a drug problem since he was 18? (Ask substance abuse questions until the second "yes" response; score 1 for at least two "yeses".)
- 4. *Prior Domestic Incident*. Before this time, have police ever been involved because he was hitting (or threatening) you, your children, his former partner, or her children?
- 5. *Prior Nondomestic Incident*. Before this time, have police ever been involved with him for any other kind of violent law-breaking?
- 6. Violence to Others. Is he violent to people other than you and the children?
- 7. *Prior Correctional Sentence*. Has he ever been sentenced to prison or jail for at least 30 days?
- 8. Conditional Release Failure. Has he ever had bail, probation, parole, or a no-contact order, AND disobeyed its conditions?
- 9. Children. How many children do you or he have? (Score 1 for more than 2 altogether.)
- 10. *Child from Previous Partner.* Do you have a child from a relationship before this partner?
- 11. Assault on Victim When Pregnant. Has he ever assaulted you when you were pregnant?
- 12. *Victim Concern*. Are you concerned that he will assault you or the children again?
- 13. Barriers to Support. Do you have any children at home aged 18 or under; do you live in a home with no phone; do you live where there is no access to transportation; do you live in a home with no people living close by; was there any alcohol involved in this assault were you using alcohol; do you have any problems in your life as a result of using alcohol or other drugs? (Ask Barriers to Support questions until the first "yes" response; score 1 for at least one "yes.")

Note: Full scoring criteria are available in Hilton et al. (in press).