

---

## Predictors of Recidivism by Stalkers: A Nine-year Follow-up of Police Contacts

Angela W. Eke, Ph.D.<sup>\*</sup>, N. Zoe Hilton, Ph.D.<sup>†</sup>, J. Reid Meloy, Ph.D.<sup>‡</sup>,  
Kris Mohandie, Ph.D.<sup>§</sup> and Jennette Williams, R.Dipl.<sup>¶</sup>

---

**In a subsample of a multisite stalking study (Mohandie, Meloy, McGowan, & Williams, 2006) comprising 78 offenders from one site, 77% committed new offenses within an average follow-up of 106 months (8.8 years). Over half (56%) were charged for new stalking related offenses and 33% for violent recidivism. Violent reoffending, including sexual offenses, was predicted by risk factors consistent with existing literature: younger age at first conviction, prior release failures, and criminal history. Stalking recidivism was predicted by pre-index offending scores, using the Cormier–Lang, and prior diagnosis of a mental illness. In addition, stalkers with previously diagnosed mental illness had significantly more police contacts as complainants than those without; their recidivism was also more likely to be non-violent. Copyright © 2011 John Wiley & Sons, Ltd.**

Stalking, or repeatedly following, contacting, or threatening a person, is expected to affect 5–16% of adults in their lifetime (Basile, Swahn, Chen, & Saltsman, 2006; Purcell, Pathé, & Mullen, 2002; Tjaden & Thoennes, 2000). Over half of victims will experience long-term repeated contacts by their stalker (Mohandie et al., 2006; Purcell, Pathé, & Mullen, 2004) and about a third of stalkers commit physical violence (e.g., McEwan, Mullen, & Purcell, 2007; Mohandie, Meloy, McGowan, & Williams 2006; Rosenfeld, 2004; Spitzberg & Cupach, 2007). Stalkers appear to differ from other forensic groups in their relatively low prevalence of psychopathic symptoms (Reavis, Allen, & Meloy, 2008; Storey, Hart, Meloy, & Reavis, 2009) and relatively high rate of mental illness (Meloy, 1998; Mullen, Pathé, & Purcell, 2009).

Both prolonged stalking (McEwan et al., 2007) and stalking-related violence (Mohandie et al., 2006; Rosenfeld, 2004) are more likely when the victim is a former intimate partner. Stalking can be a common factor in the murder of former intimate partners (see, e.g., Glass, Koziol-McLain, Campbell, & Block, 2004; McFarlane, Campbell, Sharps, & Watson, 2002; Mechanic, Weaver, & Resick, 2002) and is evident in many completed or attempted intimate partner murders (McFarlane et al., 1999).

---

\*Correspondence to: Angela W. Eke, Ph.D., Research Unit, Behavioural Sciences and Analysis Services, Ontario Provincial Police, 777 Memorial Avenue, Orillia, Ontario, Canada L3V 7V3.  
E-mail: angela.eke@ontario.ca

<sup>†</sup>Research Department, Mental Health Centre Penetanguishene, Canada

<sup>‡</sup>Department of Psychiatry, University of California, San Diego, U.S.A.

<sup>§</sup>Operational Consulting International, Inc., U.S.A.

<sup>¶</sup>Research Unit, Behavioural Sciences and Analysis Services, Ontario Provincial Police, Canada

Some stalking behaviors, such as constantly checking on the victim and destroying property, are known to occur in intact relationships (Campbell, Glass, Sharps, Laughon, & Bloom, 2007). Stalking-related violence is also associated with overt threats, substance abuse, and personality disorders (see, e.g., Brewster, 2002; McEwan *et al.*, 2007; Rosenfeld, 2003, 2004) and with motives such as revenge or resentment (see, e.g., Meloy, 1999; Meloy, Sheridan, & Hoffman, 2008; Rosenfeld & Harmon, 2002) or predation – stalking in order to commit another offense such as sexual assault (see, e.g., Mullen, Pathé, & Purcell, 2000). Therefore, threats, substance abuse, personality disorder, motive, and relationship to the victim are suitable candidates to test in the prediction of stalking and violent recidivism. Indeed, in a study of 204 individuals evaluated at a forensic psychiatry clinic for crimes related to stalking and harassment, violent stalkers were distinguished from non-violent stalkers in a decision tree model whose risk factors included prior intimate relationship, lower education, younger age, threats, and revenge motive (Rosenfeld & Lewis, 2005).

The role of mental illness in stalking is not clear. Adding psychotic disorder did not significantly improve the ability of the Rosenfeld and Lewis (2005) model to distinguish violent and non-violent stalkers. Other studies have reported that the presence of psychosis was inversely associated with violence by stalkers (i.e., Mohandie *et al.*, 2006; Rosenfeld, 2004). Rosenfeld and Lewis (2005) reported that psychosis was related to violence depending upon its interaction with other predictors, and McEwan, Mullen, MacKenzie and Ogloff (2009) found that psychosis was associated with violence in a subgroup of stalkers “rejected” by their victims. Thus it appears that mental illness may interact with other variables to increase or decrease the likelihood of violence by stalkers. In relation to recidivism, the presence of psychosis predicted stalking persistence in a one-year follow-up of 200 stalkers referred to a forensic mental health clinic (McEwan, Mullen, & MacKenzie, 2009). Rosenfeld (2003) reported that delusional disorder was inversely correlated with stalking persistence and that prior psychiatric hospitalizations did not significantly differentiate the recidivists from the non-recidivists.

## THE PRESENT STUDY

The present study examines predictors of stalking recidivism and violent recidivism in a prospective follow-up of stalkers from a police threat assessment case sample. The individuals were already considered to be at some risk by police investigators, who requested the threat assessment, therefore the prevalence of violence could be expected to be higher than in a general stalking population, making this sample suitable for a preliminary attempt to identify the characteristics of stalking recidivism and the predictors of violent recidivism among similar cases. The cases were part of a sample previously reported by Mohandie *et al.* (2006) in the largest study of stalkers published to date. The original study included 1005 cases from six sites in the United States and Canada: three prosecutorial agencies, an entertainment corporation security department, two of the researchers’ professional consultation files, and 312 cases from a large police service in Ontario, Canada. The primary outcome of the original study was the development and validation of a stalking typology using relationship and context (“RECON”) variables. Within RECON there are four categories of stalkers: Type I categories are Intimate (pursuing a current or former spouse, cohabitant, or dating/

sexual partner) and Acquaintance offenders (targeting a coworker, friend, client, health care provider with whom they have not been sexually intimate), so those who previously knew their targets, and Type II categories include Public Figure (targeting a victim whom they identified from their public or media appearances) and Private Stranger (pursuing a victim not previously known to “the stalker” but who lives or works within the stalker’s environment) stalkers who had no prior relationship with their targets. Overall, Type I offenders committed more threats and violence and, proportionally, included more males stalking females. Type II offenders were more often psychotic or experienced other mental health problems. Intimate stalkers were the most common category in the RECON development sample as well as the most malignant; many also had a violent criminal history and substance abuse history. Public Figure stalkers were the second most common and this RECON sample is the largest studied group of celebrity stalkers; they were the most likely to be psychotic of all the groups and to have a history of mental illness, and demonstrated the least violent and threatening behavior. Acquaintance stalkers, the third most common group, were less violent than Intimate stalkers; however, one in three still assaulted the victim or committed property damage. Finally, the Private Stranger stalkers were the least common group and had some characteristics of both the Intimate stalkers and the Public Figure stalkers; while half threatened their targets and one-third was assaultive or caused property damage, they were less likely to abuse substances or have a violent criminal history and more likely to be mentally disordered. Professionals assessing a stalking case can use the RECON typology to categorize the relationship and context and then use the offender characteristics, offense factors, and recidivism rates typical of that category to inform their assessment.

In the original research, Mohandie and colleagues obtained recidivism information for 730 (73%) cases; recidivism was coded as present if the case file noted any instance of new contacts with the same victim during the time that the threat assessment was being conducted. The present study involved a prospective follow-up of stalking persistence and violent recidivism in a subsample of the police cases. Studying police threat assessment cases and accessing information available to law enforcement can provide information on predictors of recidivism that may be useful in clinical settings as well as specifically helpful to those working in the criminal justice field. In the present study the follow-up was extended to an average of nine years and additional outcome variables were measured (e.g., criminal history score). Other known risk factors for recidivism (e.g., failure on conditional release; Barbaree, Blanchard, & Langton, 2003; Quinsey, Harris, Rice, & Cormier, 2006) were also examined. Although a mental health assessment was not possible, known psychiatric diagnoses were recorded from police records. Recidivism was determined based on contacts with police.

Since police occurrence reports were used, another unique aspect of this study was the ability to code police contacts according to type (i.e., as a complainant, a suspect, or a victim). Preliminary reviews of these records indicated that these stalkers had a surprisingly large number of police contacts as both suspects and complainants. Therefore, while the original plan for this study was to collect complete recidivism information for all 312 cases of the RECON development sample, the resources required to do so were prohibitive and we modified the study to sample approximately 25% of the police cases and examine police contacts in great detail, to permit a more complete understanding of the nature of recidivism among stalkers.

## METHOD

### Sample

From the 312 police cases reported by Mohandie *et al.* (2006), all of which were originally identified from threat assessment requests by investigators, extensive criminal history, complaint history, and follow-up for a randomly selected subsample of 78 offenders (25%) was collected and coded. The subsample accurately represents the full police sample reported by Mohandie and colleagues (2006).<sup>1</sup> The average follow-up time for the current study was 106 months or 8.8 years, with a range of 5.4–15.6 years (5% trimmed mean = 8.7 years, SD = 2 years).

### Procedure and Variables

The index date was defined as the date of the offense leading to the first point of police involvement (e.g., occurrence report of stalking behavior, offender arrest or verbal warning) that then led to the request for a threat assessment (not necessarily the first stalking incident). Police contacts prior to the index date were coded as criminal history.

The analyses included variables from the original study (for details see Mohandie *et al.*, 2006) such as offender age, marital status, and RECON category. From the original police threat assessment files, which contained extensive information from police records and interviews, offender history of mental health problems was coded as 0 = none and 1 = diagnosis of major mental illness or personality disorder. Pre-index and index alcohol and drug use were coded on a scale of 1 = never uses, 2 = no problems associated with use, 3 = some problems associated with use such as some marital or employment problems, 4 = interference in life such as medical conditions (e.g., cirrhosis of the liver), criminal charges (e.g., drunk driving), or serious employment issues (e.g., loss of employment due to use); this variable was also dichotomized as 0 = never uses or no problems or 1 = some problems or interference in life.

Criminal history and recidivism was coded using police occurrence reports and official criminal records obtained through the Canadian Police Information Centre (CPIC), a national database that provides details on offenders' charges and convictions. Police occurrence reports contain information about contacts with police as a complainant, victim or suspect.

Criminal history was coded dichotomously: 0 = no history, 1 = any criminal history. As well, a total score for all pre-index criminal charges was also calculated using the Cormier–Lang criminal history score, which quantifies criminal history by assigning an empirically derived weight to each charge based on the severity of offense (Quinsey *et al.*, 2006). For example, a charge of *mischievousness* is assigned a score of 2. Multiple counts involve a straight multiplication of the score for the charge; e.g., two counts of *mischievousness* would be scored as 4 (2 × 2). Overall, the higher the Cormier–Lang score, the greater the number and severity of prior offenses. We also calculated Cormier–Lang scores for the index charges.

---

<sup>1</sup> Comparison of the full Mohandie and colleagues (2006) police sample to the current subsample: offender age in years,  $M = 36.9$ ,  $SD = 10.6$  versus  $M = 38.2$ ,  $SD = 11.2$ ; offender gender, 95% male versus 94% male; ever married/cohabitating, 43% versus 51%; victim gender, 91% females versus 95%; RECON typologies, Type 1A – Intimate 73% versus 80%, Type 1B – Acquaintance 16% versus 10%, Type IIA – Public Figure 2% versus 1%, Type IIB – Private Stranger 8% versus 9%.

In relation to criminal history, offenders' age at first criminal conviction was also coded: we examined age as a continuous variable as well as a dichotomous variable (24 years of age or younger and 25 years of age or older).

Recidivism was defined dichotomously as any offense post-dating the index incident that resulted in charges or other documented forensic consequence.<sup>2</sup> Post-index reports of pre-index occurrences (i.e., new charges for historical offending, referred to as 'pseudo recidivism'; Harris, Phenix, Hanson & Thornton, 2003) were excluded. A Cormier–Lang criminal history score was derived for all post-index charges. Four types of recidivism were coded dichotomously: stalking recidivism, defined as any post-index stalking offense (e.g., criminal harassment, threatening phone calls, breaches involving new contact with victim etc); violent recidivism, defined as any post-index offense involving physical contact or force such as murder, kidnapping, and assault or any post-index contact sexual offense (e.g., gross indecency, sexual assault); non-violent recidivism, defined as any post-index stalking or other non-violent or non-contact offense (e.g., theft, mischief, threatening, fraud, fail to provide a sample, and non-contact sexual offenses such as possession of child pornography and voyeurism); and failure on conditional release, defined as post-index violations of release conditions (e.g., breach of probation, breach of conditional sentence, fail to appear). In addition, offender contacts with police as either a complainant (e.g., offender made a noise complaint), victim (i.e., the offender called police to report being victimized), or suspect in an offense were counted and summed for each offender.

Days at risk were calculated from the index date to the date of the first reoffense, subtracting the number of days spent in police or institutional custody. For three offenders who committed their first reoffense while in custody for the index, days at risk were scored as zero; these new offenses were new contacts with their index victims (e.g., utter threats, fail to comply with no contact order).

A randomly selected 13 cases (17%) were coded by two of the authors (the first and the fifth) divided across the start, middle and end of the coding. No reliability drift was evident across the coding period and all reported variables met a minimum interrater reliability coefficient of Pearson  $r = .80$  for continuous variables or kappa = .80 for categorical variables. Intraclass correlation coefficients were also examined and were a minimum of .72 for single measures and .84 for average measures.

## RESULTS

### Sample and Index Offense Characteristics

The majority of offenders were men (73 cases, 94%) and most stalked adult females with whom they had an intimate relationship (62 cases, 80%). Of the five female stalkers, four also stalked a former intimate partner (two males, two females). Offenders ( $M = 38.5$ ,  $SD = 11.0$ ) were significantly older than their primary index victims ( $M = 33.6$ ,  $SD = 8.1$ ),  $t(77) = 30.8$ ,  $p < .001$  ( $CI = 36.0–42.5$  versus  $31.2–36.1$ ). Half of the offenders (40, 51%) had ever been married or cohabitated with an intimate

---

<sup>2</sup> A minority of new offenses (14%) did not result in a charge; most of these cases (80%) led to other forensic outcomes (e.g., no-contact order, peace bond).

partner. Almost half the sample (36, 46%) was known to have a substance use problem, with 27 (35%) experiencing serious interferences in their life as a result and 17 (22%) exhibiting drug or alcohol use at the index offense. The average Cormier–Lang score at index was 5.1 (SD = 10.2) with a range of 0–71; 29 (37%) failed on conditional release at the index offense.

## Criminal History

The majority of offenders (58 cases, 74%) had a pre-index criminal history; mean pre-index Cormier–Lang score was 19.7 (SD = 31.7) with a range of 0 to 191. Over half the offenders (45 cases, 58%) also had at least one pre-index failure on conditional release. For the full sample, the average age at first offense was 29.5 (SD = 13.6).

## Recidivism

During an average follow-up of 106 months, all offenders had post-index time at risk in the community; length of follow-up did not differ between recidivists and non-recidivists,  $t(76) = .03$ , ns. Overall, 77% (60 offenders) committed at least one new reported offense (four offenders recidivated while incarcerated by contacting prior victims by telephone or letter). Recidivists had a mean time at risk of 9.8 months (SD = 18.2) for first reoffense, but half (50%) of the new offenses occurred within 2 months and 9% in less than a day (e.g., offender recontacted the victim while awaiting a court hearing, or after restraining order issued).

Stalking recidivism was recorded for 44 (56%) offenders, including criminal harassment, theft, mischief, uttering threats, and harassing phone calls directed against the victim. Stalking recidivists had a mean time at risk of 11.0 months (SD = 17.3), but half (47%) occurred within three months and a quarter (24%) within 24 days.

Violent recidivism, including contact sexual offenses, was recorded for 26 (33%) offenders. Violent recidivists had a mean time at risk of 17.5 months (SD = 22.3), with half (48%) reported as reoffending within 8 months and a quarter (24%) as offending within 68 days. Information was missing for three cases; however, most reported violent recidivism was against an intimate partner, either the index victim (17%) or a new intimate partner (35%). Additional victims included the index victim's friends or family (9%), the offender's family members (9%), or others (22%; e.g., inmates). Most violent recidivists (88%) fell into the RECON Type I-A (intimate relationship); among this subgroup, half assaulted their index victim or a new intimate partner (20% and 30% respectively).

Failure on conditional release was recorded for 47 (60%) offenders, with half (50%) occurring within 43 days of the index. The average number of failures was 1.9 (SD = 2.4); some offenders ( $n = 11$ , 23%) violated conditional release more than once and one was charged with 12 separate failures. Although details were not available for all the failures, most failures appeared to involve new contact with the index victim (e.g., harassing phone calls, threats, breach of restraining order), lack of compliance with other restrictions (e.g., alcohol use), or failure to report (e.g., to court or probation).

All types of recidivism tended to be more prevalent in the RECON intimate relationship category (see Table 1); however, this group was also overrepresented in the current sample.

### *First post-index recidivism*

Police and courts may be particularly interested in the nature of the first post-index reoffense, which may inform release decisions and terms of release. Most recidivists (42 cases, 70%) violated conditional release as part of their first reoffense on average, these conditional release violations occurred within 5.0 months ( $SD = 10.0$ ), with half (49%) reported as occurring within 40 days of opportunity. Stalking was also evident in initial post-index recidivism (32 cases, 53%); on average, these reoffenses occurred within 7.2 months ( $SD = 13.5$  months) of opportunity. Violence was evident in seven cases (9%), and four of these cases were associated with the stalking (e.g., assaulting the index victim, forcible confinement).

## **Predictors of Recidivism**

Potential predictors for each of the dichotomous outcome variables were compared: any recidivism, any violent reoffense (including contact sexual offending), and any non-violent reoffense (including stalking and failures on conditional release), stalking specifically, and failure on conditional release. The potential predictors were limited to the information available in the police case files and databases reflecting predictors that law enforcement and other criminal justice professionals may have access to in assessing risk. Univariate analyses are reported in Table 2.

Overall recidivism (i.e. 'any recidivism') was associated with younger age at first conviction, prior failure on conditional release, having any prior criminal history, higher Cormier–Lang criminal history score, and a history of a mental health diagnosis.

Table 1. Percent criminal history and recidivism as a function of RECON typology category

	Type I (prior relationship)		Type II (no prior relationship)
	A – Intimates <i>N</i> = 62 (80%) <i>N</i> (%) or <i>M</i> (SD)	B – Acquaintances <i>N</i> = 8 (10%) <i>N</i> (%) or <i>M</i> (SD)	B – Private Stranger <i>N</i> = 7 (9%) <i>N</i> (%) or <i>M</i> (SD)
Any criminal history	47 (76%)	4 (50%)	6 (86%)
Any recidivism	50 (81%)	5 (63%)	4 (57%)
Failure on conditional release	39 (63%)	3 (38%)	4 (57%)
Violent	23 (37%)	1 (13%)	2 (29%)
Non-violent	49 (79%)	5 (63%)	4 (57%)
Stalking	37 (60%)	2 (25%)	4 (57%)
Days to first recidivism <sup>1</sup>	265.7 (436.8)	794.4 (1242.7)	36.5 (42.1)

Type IIA (Public Figure) occurred only once in the sample; the offender did recidivate with a failure and new stalking offense.

<sup>1</sup>Type II offenders recidivated in a significantly shorter time period than Type I offenders, when controlling for unequal variances,  $t(52.9) = 3.3, p < .002$ .

Table 2. Correlates (Pearson *r*) of recidivism and predictive accuracy (AUC and 95% Confidence Intervals)

Predictor variables	Any reoffense N = 60 (77%)	Any violent reoffense N = 26 (33%)	Any non-violent reoffense N = 59 (76%)	Any stalking reoffense N = 44 (56%)	Any failure on conditional release N = 47 (60%)
Age at first offense (conviction)	<i>r</i> = <b>-.31</b> ** AUC = .75 (CI = .64-.86)	<i>r</i> = <b>-.38</b> ** AUC = .78 (CI = .65-.91)	<i>r</i> = <b>-.34</b> ** AUC = .76 (CI = .66-.87)	<i>r</i> = <b>-.18</b> AUC = .64 (CI = .50-.75)	<i>r</i> = <b>-.25</b> * AUC = .69 (CI = .57-.81)
Age at first offense: 24 yrs of age or younger	<i>r</i> = <b>.37</b> ** AUC = .74 (CI = .61-.86)	<i>r</i> = <b>.47</b> ** AUC = .75 (CI = .63-.87)	<i>r</i> = <b>.39</b> ** AUC = .74 (CI = .62-.87)	<i>r</i> = <b>.20</b> AUC = .60 (CI = .47-.73)	<i>r</i> = <b>.41</b> ** AUC = .71 (CI = .59-.83)
Any criminal history	<i>r</i> = <b>.24</b> * AUC = .62 (CI = .47-.78)	<i>r</i> = <b>.23</b> * AUC = .61 (CI = .48-.73)	<i>r</i> = <b>.21</b> AUC = .61 (CI = .46-.76)	<i>r</i> = <b>.19</b> AUC = .59 (CI = .46-.72)	<i>r</i> = <b>.30</b> * AUC = .64 (CI = .51-.77)
Pre-index	<i>r</i> = <b>.28</b> * AUC = .75 (CI = .64-.86)	<i>r</i> = <b>.48</b> ** AUC = .80 (CI = .69-.91)	<i>r</i> = <b>.30</b> ** AUC = .76 (CI = .65-.86)	<i>r</i> = <b>.26</b> * AUC = .69 (CI = .57-.81)	<i>r</i> = <b>.33</b> ** AUC = .73 (CI = .62-.84)
Cormier-Lang score	<i>r</i> = <b>.46</b> ** AUC = .77 (CI = .63-.90)	<i>r</i> = <b>.41</b> ** AUC = .71 (CI = .59-.82)	<i>r</i> = <b>.43</b> ** AUC = .74 (CI = .61-.88)	<i>r</i> = <b>.19</b> AUC = .59 (CI = .46-.72)	<i>r</i> = <b>.36</b> ** AUC = .68 (CI = .55-.80)
Failure on conditional release; pre or index					
Prior mental health diagnosis	<i>r</i> = <b>.24</b> * AUC = .62 (CI = .49-.76)	<i>r</i> = <b>-.02</b> AUC = .52 (CI = .38-.66)	<i>r</i> = <b>.25</b> * AUC = .63 (CI = .49-.76)	<i>r</i> = <b>.26</b> * AUC = .61 (CI = .49-.74)	<i>r</i> = <b>.10</b> AUC = .60 (CI = .47-.72)
Any mental health problems suggested in file	<i>r</i> = <b>.10</b> AUC = .56 (CI = .40-.71)	<i>r</i> = <b>.08</b> AUC = .54 (CI = .40-.67)	<i>r</i> = <b>.07</b> AUC = .54 (CI = .39-.69)	<i>r</i> = <b>.04</b> AUC = .52 (CI = .39-.65)	<i>r</i> = <b>.10</b> AUC = .55 (CI = .42-.68)
Any substance use problems	<i>r</i> = <b>.13</b> AUC = .56 (CI = .38-.74)	<i>r</i> = <b>.35</b> * AUC = .69 (CI = .54-.84)	<i>r</i> = <b>.10</b> AUC = .55 (CI = .36-.73)	<i>r</i> = <b>.17</b> AUC = .59 (CI = .41-.77)	<i>r</i> = <b>.06</b> AUC = .53 (CI = .35-.71)

Violent reoffenses include contact sex offending and non-violent reoffenses include stalking and conditional release failures.

\* *p* < .05. \*\* *p* < .01.



Variables significantly associated with stalking recidivism included higher Cormier–Lang criminal history score and mental health history. Prior mental health and criminal history scores were not correlated ( $r = -.04$ , n.s).

Variables significantly associated with violent recidivism included younger age at first offense, prior failure on conditional release, higher Cormier–Lang criminal history score and substance use problems. Offenders with lengthier, more serious criminal histories were most likely to be reported for a violent reoffense. It is worth noting that a fifth (16 cases, 21%) of the stalking offenders had no documented pre-index criminal history or mental health diagnosis in our files; over half (nine offenders, 56%) of these offenders recidivated (making up 15% of total recidivists), with one committing a violent recidivism.

### Mental Health

Overall, 62 offenders (79%) had a pre-index contact with the criminal justice system and/or with a mental health professional (i.e. only counting diagnoses or treatment); both are possible points during which a risk assessment for future offending, including violence, could be completed.

There were 22 offenders (28%) known to have a prior mental health diagnosis; most were diagnosed with a major mental illness with four being diagnosed with a personality disorder (one of whom was indicated to be psychopathic and another was diagnosed with antisocial personality disorder – both reoffended violently). One offender diagnosed with schizophrenia was found *Not Criminally Responsible* for the index offense. Offenders with prior mental health diagnoses had significantly more contacts with police as a complainant,  $F(1, 21) = 5.2$ ,  $p < .05$  than those who did not, 95% CI = 1.7–9.2 versus 95% CI = 0.9–2.7.

## DISCUSSION

In this nine-year prospective follow-up study of recidivism by stalkers, three out of four offenders committed another crime documented in police records, a conservative estimate of reoffending. Both the proportion and speed of overall reoffending among the sample subjects were high: the average time before offending was less than one year, but over half reoffended in less than three months. Therefore, it is helpful to distinguish among mean, median, and mode when analyzing recidivism data to control for outliers and accurately report recidivism details. Associated with overall recidivism was younger age, a higher Cormier–Lang criminal history score, prior failure on conditional release and mental health history; with prior failure on conditional release being the strongest predictor within this sample. Among offenders who had no pre-index police or mental health contact documented before the index offense, half committed some kind of recidivism. This finding supports concerns about making a false negative error when assessing risk with such first offense individuals; however, it needs to be examined more specifically in a more general sample of stalkers.

The rate of violent recidivism in this study was 33%. The most common victims of post-index violence were new intimate partners (35%) followed by the index victim or their friends/family (26%). Variables significantly associated with violent recidivism

were similar to those for overall recidivism: younger age at first offense, criminal history, prior failure on conditional release, and a history of substance abuse problems. The majority of violent recidivism against anyone was carried out by prior intimates. Prior intimate stalkers were also the most likely to recidivate in general, fail on conditional release, engage in both violent and non-violent reoffending, and commit new stalking offenses; consistent with the conclusion that they are the riskier of the RECON typology categories (see Mohandie *et al.*, 2006). This finding may be interpreted in terms of the intensity of emotional attachment; prior sexual intimacy may magnify the emotional reactivity when a bond is threatened (MacKenzie, Mullen, Ogloff, McEwan, & James, 2008; Meloy, 1994, 1998; Palarea, Zona, Lane, & Langhinrichsen-Rohling, 1999). The fact that a significant number of offenders recidivated against a new intimate partner supports the potential utility of interviewing former relationship partners of stalkers to inform threat assessments.

Prior intimate stalkers, to whom Mullen and colleagues (2009) refer as “rejected” stalkers, engage in more violent behavior than other stalkers. This finding has been obtained across four urban areas and two continents (Meloy, 2003). Recently, Mohandie and colleagues (2006) found a violence incidence rate of 56% in a large sample of prior intimate stalkers ( $N=502$ ; overlapping with the present study). Such high rates of violence contrast sharply with both criminal and mental health populations in general. For instance, Monahan and colleagues (2001) found a one year prevalence rate for violence of 27% among a sample of patients recently discharged from an acute psychiatric setting. Typically, the most habitually violent criminals have annual violent recidivism rates that do not exceed 30–35% (Hare, 2003). Base rates and frequencies, however, are not equal, and no studies to date have examined the rates of violence among stalkers by controlling for time (e.g., number of new incidents per year).

The rate of stalking recidivism in this study is 56%, similar to the 49% found by Rosenfeld (2003) in his study of 148 stalking and harassment offenders followed from 2.5 to 13 years after a court-ordered mental health evaluation. A higher Cormier–Lang criminal history score and mental health history were the two predictors of stalking recidivism within the current sample. Rosenfeld (2003) found that the best independent predictor of stalking reoffense was the presence of a personality disorder; and, when a personality disorder was combined with a history of substance abuse, the offenders were more likely to stalk than those offenders who had either risk factor alone. Younger age did predict stalking reoffense in the Rosenfeld study but not in the present study (although younger age at first offense did predict other types of recidivism). Although the predictors of stalking recidivism in these two studies are somewhat different – in the current study more typical predictors of recidivism were found such as mental health history and criminal history, and an association between substance abuse and violent recidivism – the reasons may lie in the subject selection. The current sample’s cases were randomly selected from cases referred for a police threat assessment whereas Rosenfeld’s cases were referred for a mental health evaluation and therefore may be more representative of stalkers with a mental health history. This subject selection, and Rosenfeld’s (2003) more precise data on mental health status, may have contributed to the larger role that psychiatric diagnosis played as predictors of stalking recidivism and his ability to distinguish the specific role of personality disorders. Nevertheless, the current study adds to the limited literature indicating that psychiatric history and substance use may contribute to the risk of stalking reoffense (see also Monahan *et al.*, 2001).

Recent research has drawn a distinction between stalking persistence (the continuation of stalking despite intervention) and recurrence (a return to stalking toward the same or a different victim after voluntarily stopping). The current study did not measure persistence because there was a period of time between release to the community and recurrence. Persistence is best measured by studying the duration of a stalking event and whether or not there has been a voluntary suspension of the stalking behavior. Although early research suggests that the most persistent stalkers target prior acquaintances (McEwan, Mullen, & MacKenzie, 2009), studies of the predictors of persistence reveal some inconsistent findings (e.g., McEwan, Mullen, & MacKenzie, 2009), suggesting that more research in this area would be beneficial.

### **Limitations**

The present sample is a subsample from the original RECON police data source and does not represent the full RECON typology (Mohandie et al., 2006). Nonetheless, the proportion of stalkers within each of the four types is likely a more accurate reflection of the representation of such types in the average law enforcement sample (i.e., excluding specialized units such as justice protection units). Further, it does provide recidivism data on a sufficient number of cases in the original intimate partner RECON category.

Only results based on univariate analyses are provided, as the sample is too small to consider the use of multivariate statistics. The univariate analyses do provide a stepping stone, along with the literature to date, for more in-depth analyses using larger samples. The decision to study a smaller sample in greater depth permitted the examination of data from a very extensive collection of offender-police contacts, including provincial, municipal, and national sources. A lesson learned from this study was that stalkers may have an unusually high number of contacts with police, in a variety of roles (e.g., as suspect, complainant, victim), placing significant demands on resources of police and other criminal justice professionals as well as researchers working in this field.

Because data were drawn from law enforcement files and databases, there was no direct assessment or contact with offenders. This precluded the discovery, identification or elaboration of other potentially important variables: idiosyncratic thought processes and dynamic variables relating to the events that could enhance prediction of stalking and violent recidivism, or variables such as personality traits and characteristics that could contribute to the prediction of recidivism (cf., Rosenfeld, 2003). Overall, the study does represent the type of information available to justice professionals (e.g., law enforcement, front-line probation and parole) and examined some predictors useful for assessments conducted in these environments.

Our follow-up study is affected by limitations similar for all recidivism research using criminal justice data. Reliance on official records for both criminal history and recidivism underestimates true offending; this in turn may have limited the strength of the associations that could be found. While offense information was extensive, with national criminal database information coded as well as occurrence report data from many police sources, an offender may still have had contact with a police or justice service of which we were unaware. Also, not all charges or convictions are listed on, described or submitted for criminal record filing (e.g., offenses dealt with through alternative means such as diversion, or the deletion of certain information after a period of time such as youth offenses or after an offender receives a pardon).

Our sample was randomly selected from cases within a police unit tasked with conducting risk assessments. Cases perceived as potentially dangerous or at risk for violence are sent to this unit and therefore, the recidivism base rates may be higher than they would be for more general police cases, or clinical cases, due to this selection bias. At the same time a benefit of this sample is it provided a good basis for evaluating the predictors of recidivism, including violent recidivism; it might be more challenging to predict rare (i.e., low base rate) events such as violence among general police cases. As well, there is benefit in examining potential predictors of use to those working within this area of policing. Overall, similar detailed follow-up studies of recidivism by stalkers using larger but less selected samples with improved measures of mental health are needed.

## CONCLUSION

In this prospective study of recidivism among stalkers, over half the stalkers reoffended. The rate and severity of reoffending may be a concern to both mental health practitioners and criminal justice professionals responding to stalkers, especially as new, unaware victims may be targeted. Particular attention should be paid to mental health, criminal history and substance abuse, especially in relation to stalking recidivism and the risk for violence subsequent to a stalking offense. Stalkers as a group are positioned between those who are psychiatrically impaired and those who engage in criminal activity. Stalking research, risk prediction models, and risk management suggestions for such cases may be best informed by the cooperation of both mental health and law enforcement professionals.

## ACKNOWLEDGMENTS

We thank Stephanie Marion for assistance with data collection, Mila Green for assistance with the original data, and Grant Harris, Debra Heaton, and Glenn Sheil for comments on drafts of this article.

## REFERENCES

- Barbaree, H. E., Blanchard, R., & Langton, C. M. (2003). The development of sexual aggression through the life span: The effects of age on sexual arousal and recidivism among sex offenders. *Annals of the New York Academy of Sciences*, 989, 59–71.
- Basile, K. C., Swahn, M. H., Chen, J., & Saltzman, L. E. (2006). Stalking in the United States: Recent national prevalence estimates. *American Journal of Preventative Medicine*, 31, 172–175.
- Brewster, M. P. (2002). Stalking by former intimates: Verbal threats and other predictors of physical violence. In K. E. Davis, I. H. Frieze, & R. D. Maiuro (Eds.), *Stalking: Perspectives on victims and perpetrators* (pp. 292–311). New York: Springer.
- Campbell, J. C., Glass, N., Sharps, P. W., Laughon, K., & Bloom, T. (2007). Intimate partner homicide: Review and implications of research and policy. *Trauma, Violence, and Abuse*, 8, 246–269.
- Glass, N., Koziol-McLain, J., Campbell, J. C., & Block, C. R. (2004). Female-perpetrated femicide and attempted femicide. *Violence Against Women*, 10, 606–625.
- Hare, R. D. (2003). *Hare Psychopathy Checklist – Revised (PCL-R): 2nd edition, technical manual*. Toronto: Multihealth Systems.
- Harris, A., Phenix, A., Hanson, R. K., & Thornton, D. (2003). *STATIC-99 coding rules: Revised 2003*. Ottawa, ON: Department of the Solicitor General of Canada.

- Mackenzie, R., Mullen, P., Ogloff, J., McEwan, T., & James, D. (2008). Parental bonding and adult attachment styles in different types of stalker. *Journal of Forensic Sciences*, *53*, 1443–1449.
- McEwan, T. E., Mullen, P. E., & MacKenzie, R. (2009). A study of the predictors of persistence in stalking situations. *Law and Human Behavior*, *33*, 149–158.
- McEwan, T. E., Mullen, P. E., MacKenzie, R. D., & Ogloff, J. R. P. (2009). Violence in stalking situations. *Psychological Medicine*, *39*, 1469–1478.
- McEwan, T., Mullen, P. E., & Purcell, R. (2007). Identifying risk factors in stalking: A review of current research. *International Journal of Law and Psychiatry*, *30*, 1–9.
- McFarlane, J., Campbell, J. C., Sharps, P. W., & Watson, K. (2002). Abuse during pregnancy and femicide: Urgent implications for women's health. *Obstetrics and Gynecology*, *100*, 27–36.
- McFarlane, J., Campbell, J. C., Wilt, S., Sachs, C., Ulrich, Y., & Xu, X. (1999). Stalking and intimate partner femicide. *Homicide Studies*, *3*, 300–316.
- Mechanic, M. B., Weaver, T. L., & Resick, P. A. (2002). Intimate partner violence and stalking behavior: Exploration of patterns and correlates in a sample of acutely battered women. In K. E. Davis, & I. H. Frieze, & R. D. Maiuro (Eds.), *Stalking: Perspectives on victims and perpetrators* (pp. 62–88). New York: Springer.
- Meloy, J. R. (1994). *Violent attachments*. Northvale, NJ: Aronson.
- Meloy J. R. (Ed.), (1998). *The psychology of stalking: Clinical and forensic perspectives*. San Diego, CA: Academic.
- Meloy, J. R. (1999). Stalking: An old behavior, a new crime. *Psychiatric Clinics of North America*, *22*, 85–99.
- Meloy, J. R. (2003). When stalkers become violent: The threat to public figures and private lives. *Psychiatric Annals*, *33*, 658–665.
- Meloy, J. R., Sheridan, L., & Hoffman, J. (2008). Public figure stalking, threats, and attacks: The state of the science. In J. R. Meloy, & L. Sheridan, & J. Hoffman (Eds.), *Stalking, threatening, and attacking public figures* (pp. 3–34). New York: Oxford University Press.
- Mohandie, K., Meloy, J. R., McGowan, M. G., & Williams, J. (2006). The RECON typology of stalking: Reliability and validity based upon a large sample of North American stalkers. *Journal of Forensic Sciences*, *51*, 147–155.
- Monahan, J., Steadman, H., Silver, E., Appelbaum, P., Robbins, P., Mulvey, E., Roth, L., Grisso, T., & Banks, S. (2001). *Rethinking risk assessment*. New York: Oxford University Press.
- Mullen, P. E., Pathé, M., & Purcell, R. (2000). *Stalkers and their victims*. New York: Cambridge University Press.
- Mullen, P. E., Pathe, M., & Purcell, R. (2009). *Stalkers and their victims* (2nd ed.) New York: Cambridge University Press.
- Palarea, R., Zona, M., Lane, J., & Langhinrichsen-Rohling, J. (1999). The dangerous nature of intimate relationship stalking: Threats, violence, and associated risk factors. *Behavioral Sciences and the Law*, *17*, 269–283.
- Purcell, R., Pathé, M., & Mullen, P. E. (2002). The incidence and nature of stalking in the Australian community. *Australian and New Zealand Journal of Psychiatry*, *36*, 114–120.
- Purcell, R., Pathé, M., & Mullen, P. E. (2004). Stalking: Defining and prosecuting a new category of offending. *International Journal of Law and Psychiatry*, *27*, 157–169.
- Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed.). Washington, DC: American Psychological Association.
- Reavis, J., Allen, E., & Meloy, J. R. (2008). Psychopathy in a mixed gender sample of adult stalkers. *Journal of Forensic Sciences*, *53*, 1214–1217.
- Rosenfeld, B. (2003). Recidivism in stalking and obsessional harassment. *Law and Human Behavior*, *27*, 251–265.
- Rosenfeld, B. (2004). Violence risk factors in stalking and obsessional harassment: A review and preliminary meta-analysis. *Criminal Justice and Behavior*, *31*, 9–36.
- Rosenfeld, B., & Harmon, R. (2002). Factors associated with violence in stalking and obsessional harassment cases. *Criminal Justice and Behavior*, *29*, 671–691.
- Rosenfeld, B., & Lewis, C. (2005). Assessing violence risk in stalking cases: A regression tree approach. *Law and Human Behavior*, *29*, 343–357.
- Spitzberg, B. H., & Cupach, W. R. (2007). The state of the art of stalking: Taking stock of the emerging literature. *Aggression and Violent Behavior*, *12*, 64–86.
- Storey, J. E., Hart, S. D., Meloy, J. R., & Reavis, J. A. (2009). Psychopathy and stalking. *Law and Human Behavior*, *33*, 237–246.
- Tjaden, P., & Thoennes, N. (2000). Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women Survey. *Violence Against Women*, *6*, 142–161.