Differentiating between Physically Violent and Nonviolent Stalkers: An Examination of Canadian Cases

ABSTRACT: This study is one of a few that empirically investigated factors that differentiated the physically violent stalker from the nonviolent stalker. Using discriminant analysis, 103 Canadian cases of "simple obsessional" stalking were examined. Overall, the success of the model for classifying cases into one of two groups was 81%. Results revealed that the physically violent stalker is more likely to: (a) have a stronger previous emotional attachment toward their victim; (b) be more highly fixed/obsessed with their victim; (c) have a higher degree of perceived negative affect towards their victim; (d) engage in more verbal threats toward the victim; and (e) have a history of battering/domestic abuse towards the victim. Overall, the variables that best differentiate the physically violent stalker from the nonviolent one appear to characterize underlying themes of anger, vengeance, emotional arousal, humiliation, projection of blame, and insecure attachment pathology.

KEYWORDS: forensic science, forensic psychology, stalking, violence, obsession, attachment pathology, domestic abuse

In recent years, researchers have attempted to better understand the criminal behavior known as stalking (or more formally known as criminal harassment in Canada). Stalking can be defined as the repeated, intentional, and malicious pursuit or annoyance of another person who feels threatened as a result (2).

Laws have been adopted in the U.S. and in most other developed countries to try and eradicate these types of behaviors. In Canada, the law to prohibit stalking has been strengthened over the years since first adopted in 1993. In 1997 amendments included a condition stating any homicide committed in the process of stalking a person is upgraded to first-degree murder, regardless of whether the murder is planned and deliberate. In addition, stalking while under conditions of a protective court order is considered an aggravating factor for sentencing purposes. Further, in 2002, the maximum sentence for stalking was increased from 5 years to 10 years. In 2006, a new provision in the law banned the practice of having the accused cross-examine the victim unless the judge feels that the proper administration of justice requires it.

The majority of victims in stalking are women and their stalker is most often a man (3,4). The latest government report in Canada suggests that 1.4 million women over 15 years old (11%) of the population) and about 900,000 men (7%) of the population) have been stalked, with the majority of victims (80%) stalked by males, regardless of the sex of the victim (3). This compares to an estimated lifetime prevalence rate for stalking in the U.S. of 8% for women and 2% for men (4).

An expanding number of typologies exist to describe the various types of stalkers (5–8). Relational typologies—which describe stalkers based on their relationship to their victim have been seen as more theoretically practical in some research (9). One developed by the Los Angeles Police Department proposes four types of stalkers: (1) the erotomanic—where the perpetrator is under delusions and is convinced that their victim, whom they may have had brief contact, is in love with them; (2) the love obsessional—where there

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is no relationship between the perpetrator and victim and where the perpetrator tends to suffer from schizophrenia or bipolar disorder (i.e., celebrity or public figure fixation), (10); (3) the simple obsessional—where the perpetrator and victim have known each other in some manner and may have engaged in either an intimate or non-intimate relationship; and (4) false victimization syndrome—where a person falsely accuses another of stalking when no such activity has taken place.

The most violent stalking cases tend to be found within the "simple obsessional" category of stalker and in particular, those with a prior intimate relationship (6,9,10). The relatively high frequency of violence by stalkers is reported to range from 25% to 40%, with one meta-analysis averaging the incidence at 33% (11,12) and another meta-analysis averaging the rate at 38.7% (13). With respect to individuals who were intimate partners, the percentage that is violent increases dramatically with a range of 55-89% in various research studies (14–16).

The rate of homicide in stalkers is estimated to be less than 2%; however, this rate may be underestimated since the crime of stalking may not be charged when a homicide occurs and not all cases are reported in the scientific literature (17,18). More recently, research in a large sample of stalkers found the homicide rate to be only 0.5%, although authors noted that this estimate is higher than the risk in the overall U.S. population (<0.01%) (6). In Canada between 1997 and 1999, there were nine homicides that involved stalking as the precipitating crime. In each of these homicides, the victim was a female who was being stalked (and later killed) by a former spouse/intimate (19).

With respect to gender differences in violence, one research study found that female stalkers appear to have the same inclination for threats and violence, although the rates of physical assault appear to be somewhat higher among male stalkers, and female stalkers appear to be less likely than males to progress from threats to actual physical violence (20).

Factors Associated with Violence in Stalking

Several studies have examined factors associated with violent behavior in stalkers (1,16,21-23). To this end, some studies have

found a significant relationship between violence and former intimates (21,23–28). This research suggests that the strength of emotional attachment may be an important factor in predicting violence.

Similarly, it is reasonable to assume that stalkers with a former intimate relationship with their victim may also be more obsessed/fixated with their victim—given their previous emotional connection and extensive knowledge of the victim—manifesting itself in potentially more varied and numerous contacts with their victim. They may also tend to exhibit a higher degree of negative affect/emotion towards their victim, given the previous strength of the former relationship. Thus, factors such as obsessional thinking, anger, persecutory thinking, and/or suicidal/homicidal ideation or intent may be important when attempting to predict violence in stalkers (18,29–31). To this end, consistent with earlier research by the author, it is proposed that those perpetrators highly fixated on their victim and those with a higher degree of negative affect towards their victim would be more likely to engage in physical violence against the victim (1).

Another variable that has been found to be significantly associated with violence in stalkers is the presence of threats made towards the victim (1,20-23,25,28). Associations have ranged between r = 0.15 and 0.39 (32) and risen to r = 0.54 (1). However, while the presence of threats may be significantly correlated with increased violence in stalkers, the real predictive value of threats has been questioned because it is common in stalking cases (15). Also, there may be significant cases where threats are not carried out and/or no threats are made previous to acts of violence (32). Moreover, the use of various definitions of violence in studies may alter the strength of the actual relationship with threats.

Other factors that have been reviewed as possible risk factors in the relationship between violence and stalkers are the presence of a mental disorder, personality disorder, and/or substance abuse (1,13,21,23). Here the research has had mixed results, given the differences in methodology in research and the lack of generalizability of small sample sizes. Some studies have found modest significant univariate associations between violent offenders and psychosis (7,23) and the presence of a major clinical disorder (Axis 1) and violence (21). Others have found no significant association between psychosis and violence (21,33) or the presence of a personality disorder (Axis II) and violence (21,23). Moreover, this same line of research has found that violence was actually less likely among psychotic offenders (23,33) or those with a major mental disorder (21). While Morrison (1) did find a significant univariate association with mental/personality (Axes I and II) disorders, this association did not remain in the hierarchical regression model.

With respect to personality, stalkers, in general, tend to be associated with personality disorders such as antisocial, borderline, histrionic, and narcissistic; however, no consensus has been achieved regarding the relationship, if any, with violence (10,13). Given the small number of studies, as well as the mixed results and various research methodologies utilized, inclusion of factors such as the presence of a personality disorder and major clinical disorder in a model of violence prediction seems worthwhile, if only as a control variable.

Moreover, while both drug abuse and alcohol abuse have been found to have modest significant associations with stalking violence in some research, (7,23,34) others report a significant association with drug abuse only (22) or no association at all with substance abuse (21,27). Overall, given that violence risk research seems to support the inclusion of alcohol and drug abuse in predictive models of violence (35), inclusion of these variables seems worthwhile. Another factor frequently associated with violence in stalkers is the presence of previous criminal behavior in the perpetrator's past history (1,7,16,34). The old adage that past behavior predicts future behavior reflects this notion. However, some studies have not found any relationship with past criminal history (21,23); thus, these mixed results suggest the need for further inquiry.

Similarly, previous domestic violence towards the victim has also been associated with stalking violence. Past research has indicated a relatively high percentage of former intimate partners who stalk (4,19). However, while several studies have found significant associations between previous domestic abuse and stalking violence (1,36–38), other studies have found little or no association between the two (16,23,34). Thus, the results are still inconclusive in this area. However, domestic violence history was viewed as an important risk factor in this study given past significant results by the author and the potential limitations of data collection in past studies for screening for domestic violence (16).

Present Study

This study attempts to add to previous research by examining factors that could potentially differentiate stalkers who are physically violent towards their victim from those who are not physically violent. Violence in this research was defined as any act of intentional physical aggression towards the victim. The author has attempted to replicate and extend previous research in this area. Variables were included based upon past clinical and empirical research that appear to be associated with stalker violence. Further, this study includes two variables-degree of emotional attachment and substance abuse-not included in a previous predictive model of stalker violence by the author (1). In addition, this study assessed the influence of personality disorder and mental disorder as separate variables (previously combined in past research by the author) and also included a variable indicating the presence of a criminal record (previously assessed as degree of aggression in past alleged offenses) (1). All other variables included in the previous study by the author were also included in this study including presence of threats, presence of previous domestic abuse, degree of obsession with the victim, and level of negative affect of the perpetrator.

Overall, this study's hypotheses suggest that nine variables—previous emotional attachment, level of obsession/fixation with the victim, level of perceived negative affect, threats toward the victim, Axis I clinical disorder (i.e., schizophrenic/delusional), Axis II personality disorder, substance abuse, criminal record, and domestic abuse would be useful in classifying stalkers who are physically violent.

Research into factors that differentiate violent stalkers from nonviolent stalkers has important implications for victims of stalking as well as those working in the justice system and medical health fields. Further research in this area can aid in developing a more complete picture of stalkers who commit violent acts and in determining factors that are beneficial to law enforcement officials in assessing risk in individual cases as well as constructing guidelines for assessing stalkers in general.

Method

The population for this study was described as all individuals in Canada who had been formally charged with criminal harassment as defined under the Criminal Code of Canada, who also met the following criteria: (1) the stalker–victim relationship was known as "simple obsessional" as described by Zona et al. (10) and (2) the

case contained sufficient information to allow for analysis related to the objectives of the study.

Although various classifications for stalkers exist (6,26), this investigation examined the "simple obsessional" type of relationship exclusively given that these cases are common in empirical studies and in police investigations and these cases tend to be the most violent (8,10).

Case studies were chosen from two databases: (1) Lexis-Nexis— A legal database containing selected cases from Canadian courts; and (2) Canadian Newsstand—a news database containing news stories from major newspapers across Canada. All cases chosen had judgment dates between the years 2000 and 2006.

A complete database of all individuals in Canada charged with stalking whose stalker–victim typology was classified as "simple obsessional" was not available; therefore, the researcher used a nonrandom sample of convenience. However, the final sample may be representative of the entire defined population given that every available case from these two databases that met the population definition was utilized. Further, other researchers have also supported the use of nonrandom samples of convenience in order to study this population (22,23,33).

The final sample size was constricted by the availability of criminal harassment cases on the two databases used in this study. A review of the two databases for cases meeting the definition described above yielded 103 usable cases between March 2000 and May 2006. Given that the sample contained cases from various provinces and varying degrees of criminal behavior, it was thought to be representative of perpetrators of this crime in general. Thus, the results appeared to be generalizable to the overall defined population.

After an extensive review of the literature on stalking and criminal harassment in published journals, books, and government documents, and reviewing a previous code sheet utilized by the author as well as the code sheet utilized by other research (6) data collection was initiated. The collection of data was based on:

- (1) determination of data necessary for hypotheses testing;
- (2) generation of questions that would obtain this data from cases; and
- (3) data required for statistical analysis.

A data code was produced in order to quantify the patterns of harassment developed in the review. After editing, 46 items were chosen for use, some of which used a nominal scale for measurement (i.e., 1,0) and others that were measured on either a five-point or seven-point interval-ratio scale.

The dependent measure was defined as the presence of any act(s) of intentional physical aggression towards the victim and was rated on a nominal scale (i.e., 1 = yes, 0 = no).

The nine predictor variables included were defined as follows:

- (1) Degree of indications of likely obsession/fixation (Obsess) ranging from (1) low/none obvious to (5) high relating to the relative number of contacts with the victim as well as the degree to which the perpetrator either went out of his way to contact the victim or acted in an unusual or peculiar manner;
- (2) Degree of perceived negative affect/emotion in actions (Ne-gaff)—ranging from (1) low to (5) high relating to the degree of perceived anger/hatred towards the victim based on known emotional hostility directed towards the victim;
- (3) Explicit verbal threat/no threat status towards victim (Threat) nominally scaled item (1 = yes; 0 = no);
- (4) Strength of emotional attachment (attach)—based on the type and degree of emotional attachment ranging from (1) weak (casual acquaintance, dated and/or known less than 6 months)

to (5) strong (married, commonlaw, may have kids with victim and/or lived together and/or relationship extended more than 3 years);

- (5) Known substance abuse/dependency (i.e., legal or illegal drugs/alcohol) (Drugalc)—nominally scaled item (1 = yes; 0 = no);
- (6) Presence of a personality disorder (Axis II diagnosis based on the Diagnostic and Statistical Manual of Mental Disorders (DSM IV-TR) (Pers)—nominally scaled item (0) = no/none obvious; (1) = yes, based on the symptomology detailed in the case and/or court observations/assessments from appointed experts (39);
- (7) Presence of major mental disorder including psychotic/delusional/schizophrenic clinical disorder (Axis I diagnosis) (Schiz)—nominally scaled item (1 = yes; 0 = no), based on detailed information contained in the cases including any psychiatric or psychological evaluations, expert witnesses, and an analysis of symptoms and behaviors of the perpetrator (39).
- (8) Batterer (Batt)—domestic violence towards victim over time prior to stalking behavior—nominally scaled item (1 = yes; 0 = no);
- (9) Presence of a criminal record for nonviolent and/or violent crimes of any kind (crimrec)—nominally scaled item (1 = yes; 0 = no).

Scorer reliability was estimated by having the subjective questions from a small sample of cases (n = 25) independently rated by another expert rater. The scores for each subjective question were then correlated. Correlations between the scores for all items were computed and found to be relatively high (r = >86) and therefore, the possibility of scorer variance was significantly reduced (40,41).

Results

The sample consisted of n = 103 perpetrators charged with criminal harassment (more commonly known as stalking) from nine different provinces including Ontario (n = 49), British Columbia (n = 20), Alberta (n = 16), Saskatechewan (n = 6), Newfoundland (n = 5), Manitoba (n = 3), Prince Edward Island (n = 2), Nova Scotia (n = 1), and Quebec (n = 1).

In cases where the age of the perpetrator was known (n = 66), the range in age was from 18 to 67 years old with a mean age of 38 (SD = 11.5) and consisted mainly of males (90% male, n = 93). The marital status of the perpetrators consisted of 44% estranged/separated (living apart) (n = 45); 43% single (n = 44); 10% married/commonlaw (living together) (n = 10); and 4% divorced/widowed (n = 4). Race/ethnic background of the perpetrators was not available to the author. The mean age, marital status, and gender of the subjects are generally consistent with other research involving those charged with stalking (1,6,14). Almost half (45%) of the perpetrators had children/dependents (n = 46).

Background of the perpetrators is shown in Table 1. As indicated in Table 1, close to half of the perpetrators had some type of clinical and/or personality/mood disorder as well as a criminal record and a history of violent behavior prior to current criminal charges for stalking. In addition, over one-third of the sample had previously breached a court order.

Few details of the victims' background information were available. Results indicated that the overwhelming majority of victims were female (91%, n = 94). Most of the victims were either single (42%, n = 43) or estranged/separated (40%, n = 41). Only 15% (n = 15) of victims were married/commonlaw and 4% (n = 4) were divorced/widowed.

 TABLE 1—Perpetrators' alleged life history prior to current criminal charges.

Characteristic	Frequency (%)	n	
Mental illness/personality/mood disorder	48	49	
Criminal record (violent and/or nonviolent crimes)	46	47	
Alleged physical assault/other violent behavior*	44	45	
Alleged breach of any past court order*	36	37	
Criminal record including violent crimes	34	35	
Criminal record for nonviolent crimes	32	33	
Alleged drug or alcohol abuse*	30	31	
Alleged stalking behavior in past relationships*	29	30	
Alleged violence/abuse (but no criminal record)*	21	22	
Alleged property/burglary/break and enter*	21	22	
Previous stalking/criminal harassment charge	18	19	
Military/weapons/firearm background	11	11	
Alleged sexual assault/abuse*	8	8	
Alleged fraud or similar nonviolent behavior*	8	8	
None known	33	34	
Unknown	2	2	

*Not necessarily charged or convicted for these alleged behaviors.

With respect to victim assaults, results showed that almost half (45%, n = 46) were physically assaulted (i.e., actual physical contact) while one-third (33%, n = 34) were victims of some form of property assault. Moreover, some forms of weapons were used in 18% (n = 18) of the cases (i.e., gun, knife, baseball bat) and the type of violent/aggressive behavior was planned or predatory in nature in almost one-third (29%, n = 30) of the cases.

Six types of previous relationships between perpetrator and victim were found. The majority consisted of either couples that had been living together as married or commonlaw (42%, n = 43) or girl/boyfriends in a dating/intimate relationship but not living together (36%, n = 37). Overall, 78% (n = 80) were involved in a prior intimate relationship. Other types of attachments found in the sample consisted of casual acquaintances (14%, n = 14), professional relationships (i.e., doctor/teacher) (5%, n = 5), personal friends (3%, n = 3), and work colleagues (1%, n = 1).

The length of the previous cordial relationship ranged from under 2 months (12%, n = 12) to over 15 years (5%, n = 5), with almost half of the relationships (48%, n = 49) lasting less than 1 year and almost 60% (n = 61) lasting less than 2 years.

The type of alleged psychiatric/psychological disorder(s) of the perpetrator at the time of the current legal charge(s) is outlined in Table 2. Results indicate that a large majority of the sample (1) appeared to have extreme difficulty in controlling their emotions (2), were severely obsessed and fixated on their victim, and/or (3) appeared to have symptomology consistent with the presence of a personality disorder. Other results revealed that 11% (n = 11) of the sample had either attempted suicide or had thought about committing suicide.

 TABLE 2—Type of alleged psychiatric/psychological disorder of stalker at time of current charge(s).

Type of disorder	Frequency (%)	n
Emotional problems (i.e., not in control of emotions)	75	77
Obsessive/desperate/fixated/compulsive	74	76
Personality (narcissistic/antisocial/borderline)	71	73
Domestic abuse/batterer	43	44
Substance abuse (alcohol/drugs/steroid)	25	26
Mood/depressive/bipolar	15	15
Schizophrenia/psychotic/delusional	6	6
None	4	4
Other	1	1
Unknown	1	1

With respect to police warnings or court orders to stay away and/or discontinue any type of contact with the victim, a majority of perpetrators (65%, n = 67) were under such orders; yet, of those who were, an overwhelming 93% chose not to obey the order or warning. Further, an examination of known direct threatening statements made by the perpetrators reveals that almost two-thirds (62%, n = 64) made some kind of threatening statements. Of these, the majority (59%, n = 61) were made either directly to or about the victim; one-third of the threats (33%, n = 34) were made to or about a third party; 9% (n = 9) regarding property or things; 8% (n = 8) regarding threats of perpetrator suicide; and 1% (n = 1) regarding animals.

Table 3 presents the initial strategy(s) used by the victims to cope with the stalker. The two most common strategies used by the majority of victims were calling police (91%) and/or documenting/collecting evidence against the stalker (80%). As compared with earlier research by the author (1), it appears that a much larger percentage of victims are both choosing to contact police (91% vs. 56%) and document evidence against their perpetrator (80% vs. 18%). As laws against stalking gain more exposure and police gain more experience in dealing with this crime, perhaps victims are educating themselves and learning appropriate methods to initially deal with their stalker.

Unfortunately, the present study also indicates that a much larger percentage of victims are choosing to confront/talk to the perpetrator (78% vs. 38%), which may only lead to prolonging the stalking and reinforcing this type of behavior (42). This latter result could also indicate that the stalker's actions including phone contacts, approaching the victim, and unwelcome visits to home or work made it more difficult to avoid confronting the stalker. In addition, the more face-to-face contact that is initiated between the two parties, the higher the chance for violence to occur.

Table 4 reveals the type of contact made by the stalker towards the victim. The most frequent types of contact made by the majority of perpetrators included verbal abuse (77%), repeated phone (73%), unwelcome visits to the victim's home, work, or social places (65%), as well as approaching the victim (60%) and threats toward the victim (59%). The most frequent violent behavior involving physical contact was physical assault without a weapon in which over one-third (35%) of perpetrators were involved.

In comparison with earlier work by the author (1), the results of this study show that the number of physical assaults increased slightly from 28% to 35% (without a weapon) and from 14% to 18% (with a weapon). What remained essentially the same between these two studies was the top three types of contact made by the stalker.

The length of time the perpetrator stalked their victim after the relationship reportedly ended ranged from less than 1 week (11%) to over 10 years (3%), with a mean of between 6 months to 1 year. More than half of the perpetrators harassed their victim 6 months

TABLE 3—Initial strategy(s) used by victim to cope with stalker.

Strategy(s)	Frequency (%)	n	
Call police/security	91	93	
Document/collect evidence against stalker	80	82	
Confront/talk to stalker	78	80	
Avoid	69	71	
Restraining/legal order	60	62	
Ignore stalker	53	55	
Call/use friend/family/relative/neighbor	47	48	
Moved to different house/school/out of area	21	22	
Changed phone line	15	15	
Other	2	2	

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TABLE 4—Type of contact made by stalker towards victim.

Type of contact	Frequency (%)	n	
Verbal abuse/left verbal messages intended to fear	77	79	
Repeated phone	73	75	
Unwelcome visits to home/work/social places	65	67	
Approached victim	60	62	
Threats toward victim	59	61	
Harass other third parties	53	55	
Surveillance/watching/besetting	52	53	
Follow	42	43	
Physical assault without weapon	35	36	
Sent letters/cards/notes	29	30	
Property damage	25	26	
Threats to harm third party	25	26	
Break and enter (victim's property)	21	22	
Extortion or threat of extortion	19	20	
Assault with weapon	18	18	
Sent gifts/flowers	15	15	
Sent/left packages/odd items	12	12	
Repeated email	11	11	
Threatens suicide	7	7	
Sexual assault	7	7	
Arson/attempted arson	2	2	
Other	8	8	

or less (60%) and almost three-quarters of the sample (73%) 1 year or less. It is important to note that the length of harassment can be influenced by a number of variables such as police/legal interactions, victim's responses, and type of contact made by the perpetrator.

Table 5 displays the location of the stalking behaviors.

The overwhelming majority of stalking incidents took place at the main residence or home of the victim (95%), followed by a public street (64%), and to a lesser degree, the victim's work environment (45%). In addition, it is important to note that it was not uncommon for perpetrators to engage in stalking behavior at more than one location.

Results also revealed that over one-third (38%, n = 39) of the perpetrators were either on probation or parole during the time of the current stalking offence. In addition, the majority (79%, n = 81) engaged in an escalation of harassing behaviors over time. The perceived motive for the perpetrator's harassment of their victim was based on a combination of direct statements and/or actions by the perpetrator. The most common motive established was anger/jealousy/retaliation (47%, n = 48) where the victim is viewed as a possession or property and where there is an imagined sense of mistreatment and attack on the personal self-image of the perpetrator.

Other motives included (a) the perpetrator's attempt to pursue and/or coerce the victim back into a relationship based on a romantic fixation/dependency (28%, n = 29), (b) compensation for

Location	Frequency (%)	n
Main residence/home of victim	95	98
Public street	64	66
Work (victim's workplace)	45	46
Car (in or around victim's car)	37	38
Social places/shops/events	35	36
Other residence/cottage (i.e., friend, relative)	31	32
Parking lot	18	18
School (child's)	8	8
Other	9	9
Unknown	1	1

Note: Frequencies add up to more than 100 given that some perpetrators engaged in stalking behavior in more than one location.

other psychosocial stressors (13%, n = 13) (i.e., loss of job, custody battle, other legal problems), and lastly, (c) evidence of a mental and/or personality disorder overcoming the perpetrator (also includes substance abuse).

Current criminal charges against the perpetrators included 23% (n = 24) charged only with criminal harassment/stalking; 36% (n = 37) charged with criminal harassment and other relatively minor nonviolent offences (i.e., mischief, breach of probation); 5% (n = 5) charged with criminal harassment and serious but nonviolent offences (i.e., break and enter, extortion); 28% (n = 29) charged with criminal harassment and violent-related offences (i.e., assault, arson, sexual assault); and a further 8% (n = 8) charged with criminal harassment and either attempted/counseling murder or murder.

An overwhelming number of perpetrators (96.1%, n = 99) had apparent psychosocial stressors 1 year prior to the onset of stalking behaviors. These various stressors are outlined in Table 6. The most frequent stressor was some type of psychiatric/personality disorder or emotional problems prior to being charged with stalking. In addition, over one-third was involved in domestic violence issues and many also had legal problems before the current stalking charges. This is consistent with previous research by Kienlen et al., (33) who found that most stalkers had some type of major stressors or losses, previous to the stalking behavior. They theorized that the stalker, with associated low self-esteem, attempts to avenge these stressors through stalking or by blaming the victim and acting out anger and revenge.

Also, in comparison with previous research by the author, the top three psychosocial stressors 1 year prior to the stalking charge between the author's two studies remained the same; however, the frequency of these issues increased for the current study—notably, psychiatric/personality/emotional problems (39% vs. 63%), domestic abuse/anger management issues (23% vs. 39%), and legal problems for the stalker other than current charges (23% vs. 32%) (1).

Standard discriminant analysis was used to identify variables that best differentiated the physically violent stalkers (coded as 1) from the nonviolent stalkers (coded as 0). The violent group (n = 46, 45%) of the sample) was defined as those perpetrators who physically assaulted their victim (actual physical contact) while the nonviolent group (n = 57, 55%) of the sample) did not physically assault their victim. The selection of variables was based on the literature review and previous theories indicating specific variables that should contribute to explaining differences among the groups.

A discriminant equation was developed differentiating these two groups using nine predictor variables. Table 7 shows the means, standard deviations, and one-way ANOVA results of the nine predictor variables as a function of physical violence.

 TABLE 6—Type of alleged psychosocial stressors of stalker 1 year prior to stalking charge.

Stressor	Frequency (%)	n
Possible psychiatric/personality/emotional problems	63	65
Batterer/domestic abuse/anger management problems	39	40
Legal problems other than current charges	32	33
Child custody/concerns regarding children	25	26
Alleged substance abuse (i.e., alcohol, drug)	24	25
Alleged new date/partner in life of victim	19	20
Relationship problems other than current victim	9	9
Loss of employment/financial problems	7	7
None or none known	3	3
Other	3	3
Death/serious illness in family/relatives	2	2

TABLE 7-Means, standard deviations, and one-way ANOVA results of	
predictor variables as a function of physical violence.	

	Physically violent group (n = 46)		Nonviolent group (n = 57)		Test of equality of group means	
Predictor variable	Mean	SD	Mean	SD	F	
Threats to victim	0.85	0.36	0.39	0.49	28.21***	
Perceived negative affect	4.26	1.14	2.89	1.48	26.33***	
Domestic abuse/batterer	0.43	0.50	0.26	0.44	15.93***	
Previous emotional attachment	3.83	1.37	2.68	1.68	13.80***	
Fixation/obsession	4.39	1.11	3.56	1.45	10.24**	
Criminal record	0.54	0.50	0.39	0.49	2.56	
Personality disorder	0.78	0.42	0.65	0.48	2.20	
Schizophrenic/delusional	0.02	0.15	0.09	0.29	2.02	
Substance abuse	0.26	0.44	0.25	0.43	0.03	

p < 0.01; *p < 0.001.

As shown in Table 7, the *F*-statistic indicated that significant differences between the two groups for each variable individually were identified for five of the nine variables. These included (1) degree of indications of likely obsession/fixation; (2) degree of perceived negative affect/emotion in actions; (3) explicit verbal threats towards the victim; (4) strength of emotional attachment; and (5) battering/domestic violence towards victim over time prior to stalking behavior. No significant relationship from the one-way ANO-VA was computed for any of the following predictor variables: substance abuse, personality disorder, major mental disorder, or the presence of a criminal record.

Table 8 shows the pooled within-groups correlations between the discriminating (predictor) variables and the standardized canonical discriminant function and is an alternative method to examine the usefulness of each variable in the discriminant function. There is little agreement pertaining to how high correlations in a structure matrix must be to be interpreted; however, in general, correlations higher than 0.33 (10% of variance) tend to be eligible while lower correlations are not (43).

Results from Table 8 suggest that the best predictors for distinguishing between physically violent and nonviolent stalkers are "threats to victim," "perceived negative affect," "domestic abuse," "previous emotional attachment," and lastly "fixation/obsession." The remaining variables were not considered relevant due to their relatively low correlations with the canonical discriminant function.

Table 9 presents the classification analysis measuring the degree of success of classification of the physically violent stalker group and the nonviolent stalker group. Actual group membership in the two groups was compared with predicted group membership.

Among the 46 physically violent stalkers in the sample, n = 37 (80%) were correctly classified. With respect to the 57 nonviolent

TABLE 8—Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions (structure matrix).

Predictor	Structure matrix
Threats to victim	0.67
Perceived negative affect	0.65
Domestic abuse/batterer	0.50
Previous emotional attachment	0.47
Fixation/obsession	0.40
Criminal record	0.20
Personality disorder	0.19
Schizophrenic/delusional	-0.18
Substance abuse	0.02

TABLE 9—	-Classification	analysis f	for pi	hysical	violer	ice.
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	Predicted group me				ship
			ically lent	Nonv	iolent
Actual group membership	n	n	%	n	%
Physically violent Nonviolent	46 57	37 11	80 19	9 46	20 81

Note: Overall percentage of correctly classified cases = 81%.

stalkers in the sample, n = 46 (81%) were correctly classified. Overall, the success of the model for classifying cases into one of two groups is 81%. This can be compared with an expectation of approximately 50% correct classification rate if one randomly assigned cases into groups. Thus, given that the percentage correct using the classification equation is substantially larger than the percent expected correct by chance alone, it appears that the model was relatively successful in differentiating physically violent stalkers from nonviolent stalkers.

Discussion

Consistent with prior research by the author (1), the general profile of the "simple obsessional" stalker type derived from this study reveals a single or separated middle-aged male with some type of dating/intimate relationship with his victim lasting less than 2 years prior to the stalking behavior. The stalking behavior usually escalates over time and tends to last approximately 6 months to a year after the relationship ends. In addition, it tends to occur mainly at the victim's home or on a public street, although multiple locations are not uncommon and usually takes the form of verbal abuse, incessant phone calls, surveillance, harassing third parties, and unwelcome visits and approaches.

Further, the general profile outlined in this research suggests that the "simple obsessional" stalker has considerable difficulty controlling his emotions and taking responsibility for his actions. These characteristics lead to erratic and illegal behavior including the use of threatening statements, previous violent behavior, the necessity of a court order to attempt to stop the stalking behaviors, and the inability of the perpetrator to obey such orders after they are put in place. Physical assault and/or property damage are not uncommon occurrences. Typically, the stalker is dealing with other psychosocial stressors in his life in the months prior to the stalking charge such as mental/emotional breakdown, domestic abuse or substance abuse issues, other legal problems, and/or child custody concerns. The most common apparent motive appears to be some combination of anger, jealousy, and/or retaliation for a perceived sense of mistreatment by the victim, who is viewed as a possession or property. Thus, the break-up tends to be perceived as an attack on the personal self-image of the perpetrator.

This study is one of a few that empirically investigated factors, which differentiated the physically violent stalker from the nonviolent stalker. Results revealed that the physically violent stalker, in comparison with the nonviolent stalker, is more likely to: (1) have a stronger previous emotional attachment toward the victim; (2) be more highly fixated/obsessed with their victim often resulting in a higher number of contacts and more effort put forth to confront their victim; (3) have a higher degree of perceived negative affect/emotion towards their victim; (4) engage in verbal threats toward the victim; and (5) have a history of battering/domestic

abuse towards the victim. Other variables tested in the model did not appear to aid in substantially differentiating the two groups. Overall, the success of the model for classifying cases into one of two groups was 81%.

These results appear to be consistent with earlier research by the author (1) and other studies in this area (6,13,21,27,44). It would seem reasonable that law enforcement officers should attempt to investigate these factors when determining the risk of physical violence that stalkers present to their victim.

While the use of logistic regression modeling in a sample of 204 stalkers by Rosenfeld and Lewis found that both age and education were significant predictors of violence risk, education was not measured in this study and age was not found to be a significant factor in discriminating the two groups under study (45). Although it is important to note that, consistent with this study, Rosenfeld and Lewis found that both a prior intimate relationship and threats to the victim were important predictors of violence risk and that variables such as substance abuse, personality disorder, psychotic disorder, and the presence of a criminal record/history were not significant factors in predicting violence risk.

Taken as a whole, the multiple variables that best differentiate the physically violent stalker from the nonviolent one appear to characterize underlying themes of anger, vengeance, emotional arousal, humiliation, projection of blame, and insecure attachment pathology. To this end, past research has argued that the degree of emotional attachment between the two parties is key to understanding stalker behavior (21,23,26). With respect to emotional attachment, results seem to suggest that as the degree of emotional attachment between stalker and victim increases, it also intensifies the threatening nature of the rejection between the two parties and this emotional reactivity tends to result in increased violence.

Bowlby's attachment theory (46–48) is one model that has been applied to understand these emotions and attachments in stalking behaviors (49–52). Based on this theory, children develop confidence, discover love, and learn that significant others are reliable and supportive predominantly by having attachment figures that are responsive to them. On the other hand, children who experience rejection or inconsistencies with significant others tend to view themselves as undeserving of love and view others as untrustworthy and hostile (46–48).

Further, Hazan and Shaver (53) proposed similar processes in adult relationships. Still other theorists have developed four specific attachment styles based on two axis: view of self and view of others (54,55). The first style is those individuals who are "securely" attached and have positive working models of both self and others. They believe that they are lovable and that significant others will be emotionally responsive to them. The other three styles encompass those who are "insecurely" attached.

Specifically, those with a "dismissive" style have a negative working model of others but a positive model of self. They protect their self-esteem from possible rejecting relations with attachment figures by deemphasizing the importance of attachment relationships. This style is most commonly associated with antisocial and narcissistic personality disorder. Individuals with this type of insecure attachment style stalk to seek retaliation rather than because of any preoccupation (56,57).

The "preoccupied" style includes individuals who have a negative working model of self and a positive model of others. They look for reassurance and approval from attachment figures because they feel unlovable and unworthy and they are constantly searching for clues that they might be abandoned. These feelings lead to high levels of intimacy anger and the use of projection as a defense results in blaming their partner when the relationship fails and is most commonly associated with borderline personality disorder (56,58).

Lastly, those with a "fearful-avoidant" style have negative working models of both self and others. They desire to be close to attachment figures but believe that rejection will occur eventually, a problem they work through by maintaining emotional distance in close relationships (59). This style is most commonly associated with features of both avoidant and dependent personality disorders due to their underlying fear of losing their attachment figure (56).

Research that has previously investigated stalker attachment styles suggests that stalkers develop an insecure attachment style, which affects their relations in later years. Specifically, those with a preoccupied and, to a lesser degree, fearful-avoidant and dismissive styles tend to be most likely to stalk (17,49,50,52,56). In addition, these pathological styles generally encounter prolonged anxiety and low self worth about rejection and abandonment in personal relationships and thus are inclined to jealousy, anger, obsession, and unstable mood swings (60). Inevitably, this anger, emotional instability, jealousy, and impulsivity (sometimes accompanied by an underlying personality disorder) tend to be related to verbal and physical abuse in intimate relationships and attachment style (61) and ultimately, lead to an increased risk of violence toward their victim.

Consistent with this model of devaluing oneself, Meloy's earlier work (17,62) revealed a narcissistic linking fantasy, followed by rejection and feelings of shame and rage that developed into pursuit behaviors and pathological narcissism, which perceives the victim as an object meant for self-gratification. Similarly, Cupach, Spitzberg and Carson (63) research also noted that stalkers produce feelings of shame and anger and are motivated to devalue or destroy their victim, based on a narcissistic sense of entitlement. Shame may develop when the stalker is rejected by a person they value, and thus respond by becoming angry at this individual. Together, shame and anger may produce a stalker who attempts to control their victim by vengeful or violent behavior. To this end, results from this study and prior research by the author (1) also appear to show that the development of negative affect can reach a stage where perceived love turns to hate and hate turns to violence, where the idealized object is devalued.

This increase in emotional arousal can move back and forth between states of love and hate and after further rejection, suddenly turn to humiliation, anger, and violence when the stalker is unable to control this internal conflict. The stalker perceives rejection by the victim as a form of control over them (i.e., their life's happiness) and thus attempts to regain control of the victim by committing a violent act (50,64).

While anger can initially be a functional response directed toward protesting separation from an attachment figure and overcoming obstacles to reunion, it is the dysfunctional manifestations of anger such as hostility, hatred, vengeance, and uncontrollable aggression or violence against the victim that become part of the failed strategies designed to control the victim and keep them from departing, which ultimately destroys the relationship (65,66).

Similarly, further explanation of why stalkers of former intimate partners are more physically violent than other types of stalkers was advanced by Meloy and Gothard (2). Stalkers, who are also batterers, tend to display some or all symptoms of Cluster B personality disorders including narcissism and borderline personalities (9). This pathology tends to defend against loss, rejection, and internalized shame with abandonment rage, as well as a sense of entitlement and retaliation to protect the self from pain. This enhanced rage or intense negative affect towards the victim promotes revenge scenarios and violence. The intense obsessive behaviors that form stalking are consistent with this revenge. Thus, the rage acts both to decrease feelings of powerlessness and attempts to control the ex-partner.

Consistent with past research by the author (1), this study also found that the degree of obsession/fixation with the victim is also an important factor in predicting violence. Recent research by Meloy and Fisher (67) has argued that obsessional thoughts and behaviors may have a biological component and be caused by the suppressed levels of central serotonin and increased levels of central dopamine in the brain as seen with those exhibiting obsessivecompulsive disorder. This obsessive pursuit, despite continuous rejection, can develop from the stalker's perception that maintaining a relationship with the victim is necessary for other higher goals such as self-worth or happiness (63,68). As a result, obsession over the relationship may then lead to distress and can magnify and escalate negative emotions, leading to the potential for violent behavior.

With respect to battering and its relationship with stalking violence, previous research has revealed the close association between previous domestic abuse and stalking (1,9,37,44). Moreover, domestic violence research has also shown that leaving (or rejecting) abusive partners can be dangerous (36,69). Thus, the significant relationship between previous battering and stalking violence found in this study should not be surprising. Rejected partners, prone to domestic violence, tend to feel entitled and jealous, both of which can fuel rage, and attempts to control and devalue the victim and ultimately, lead to potential violence. In addition, batterers who stalk tend not to take responsibility for their actions or its consequences and are at risk for repeating violent acts that have been previously rehearsed in fantasy (37). These obsessive thoughts and fantasies of the victim may eventually turn to rage as a way to decrease feelings of jealousy, abandonment, and powerlessness and lead stalkers to commit violence.

Results of this study also suggest that the presence of threats is also an important predictor of violence in stalkers who have had some type of prior relationship with their victim. However, the value of this data, by itself, may not be of great value given that most stalkers, especially previous intimates, do threaten their victims (6,7,21,28,33) and that most threats, by themselves, do not result in violence (15,17). Regardless, all threats should be examined carefully, and this factor, in combination with other significant predictors presented here, may be helpful in assisting law officials in determining the degree of threat of physical violence posed by the stalker.

Notably, there were no significant differences between the violent and nonviolent group with respect to substance abuse, presence of a personality disorder(s), or major clinical disorder (i.e., schizophrenic/delusional), and/or prior criminal record and thus these characteristics do not appear to play a significant role in differentiating these two groups. In general, earlier research findings appear to support the lack of findings with respect to these variables (16,21,23,27).

It is important to note, though, that among stalkers in general, including those with insecure attachment styles, it is common to find both Axis I mental disorders and Axis II personality disorders, as well as substance abuse issues and criminal histories (17,56,57). However, results of this study suggest that stalkers who are at higher risk of physical violence toward their victim should not be viewed as strictly individuals with extensive criminal records or psychiatric histories and need not be diagnosed with any mental or personality disorder as a precursor to violence. For this type of stalker, degree of negative emotional reactivity of the individual as well as emotional attachment to the victim, level of

obsessive/fixation with the victim, threats made toward the victim, and a history of domestic abuse appear to be much more important factors in predicting violence than any ongoing or longstanding history of mental and/or personality disorder, criminal record, and/or substance abuse issues.

Limitations and Future Research

Limitations of the current study include the use of a nonrandom sample of convenience, which may limit generalizability of the findings. However, a complete database of all Canadian stalking cases meeting the study's requirements was not available and all cases found in the database with sufficient information were included in an attempt to decrease potential sources of bias.

Another potential limitation of the study is the relatively small sample size as well as the use of historical data, which eliminates the ability to individually assess specific psychiatric diagnosis of the stalkers and leads to the inclusion of multiple disorders into one category. It is conceivable that variables such as specific mental/personality disorders and substance abuse are more closely linked to violence. Certainly, factors such as substance abuse and specific personality or delusional disorders have the ability to decrease impulse control and increase emotional reactivity that may result in violence (10,57). Thus, these factors should be further examined on an individual basis.

In addition, the correlational nature of the research design inhibits the ability to form conclusions regarding the causal nature of relationships. Other confounding variables not contained in the study may also influence significant relationships.

Further, with respect to the discriminant analysis, given that classified cases were the same ones used to estimate the coefficients, there exists the possibility of an overly optimistic estimate of the classification. To adjust for this, a jackknifed classification (or leave-one-out estimate) was conducted to help diminish the optimistic bias. In this procedure, each case is classified into a group according to the classification function computed from all the data except the case being classified. When this method is used with all predictors forced into the equation, bias in classification is eliminated (43). Overall, both classification procedures correctly classified substantially more than those correct by chance alone.

Lastly, a better understanding of stalking behavior appears to relate to important components of jealousy and damage to selfesteem as well as related psychological defense mechanisms. This study can only offer potential explanations of stalking behavior given the limited ability to understand and quantitify the role that jealousy may play in the development of stalking.

Given the extensive psychological literature in the area of jealousy and self-esteem (70–74), an important area for future research might be establishing what specific components of jealousy are useful in understanding stalker behavior.

Also, other areas for future research include a more in-depth examination of the psychological effects on stalking. While physical violence towards the victim is relatively easy to measure and has serious consequences for the victim of stalking, more study is needed with respect to the psychological effects of stalking on the victim, which also can have a debilitating effect on the victim. By nature, stalking encompasses multiple violations against the victim, including threats of potential violence. These repeated behaviors tend to have a cumulative negative effect on the well-being of the victim and can lead to depression, guilt, humiliation, and anxiety (75). In addition, factors affecting recidivism rates and predictors of recidivism in stalkers are other important areas for further study considering preliminary research has found relatively high rates of almost 50% for recidivism (76). Finally, more in-depth case studies may be helpful to aid in the identification of other potential correlates of violence, which may help to more accurately predict violence in stalking cases and aid in risk assessment and law enforcement strategies.

References

- Morrison KA. Predicting violent behavior in stalkers: a preliminary investigation of Canadian cases in criminal harassment. J Forensic Sci 2001;46:1403–10.
- Meloy JR, Gothard S. Demographic and clinical comparison of obsessional followers and offenders with mental disorders. Am J Psychiatry 1995;152:258–63.
- 3. Statistics Canada. Family violence in Canada: a statistical profile 2005. Ottawa, Ontario (CA): Statistics Canada, 2005. Catalogue No.: 85-224-XIE:33-43.
- Tjaden P, Thoennes N. Stalking in America: findings from the national violence against women survey. Washington, DC: National Institute of Justice and Centers for Disease Control and Prevention, 1998.
- Del Ben K, Fremouw W. Stalking: developing an empirical typology to classify stalkers. J Forensic Sci 2002;47:152–8.
- Mohandie K, Meloy JR, McGowan MG, Williams J. The RECON typology of stalking: reliability and validity based upon a large sample of North American stalkers. J Forensic Sci 2006;51:147–55.
- Mullen PE, Pathe M, Purcell R, Stuart GW. A study of stalkers. Am J Psychiatry 1999;156:1244–9.
- Zona MA, Sharma KK, Lane J. A comparative study of erotomanic and obsessional subjects in a forensic sample. J Forensic Sci 1993;38:894– 903.
- 9. Douglas KS, Dutton DG. Assessing the link between stalking and domestic violence. Aggression Violent Behavior 2001;6:519–46.
- Zona MA, Palarea RE, Lane JC. Psychiatric diagnosis and the offendervictim typology of stalking. In: Meloy JR, editor. The psychology of stalking: clinical and forensic perspectives. San Diego, CA: Academic Press, 1998;69–84.
- Meloy JR. Stalking and violence. In: Boon J, Sheridan L, editors. Stalking and psychosexual obsession. London: John Wiley & Sons, 2002;105–24.
- Spitzberg B. The tactical topography of stalking victimization and management. Trauma Violence Abuse 2002;3:261–88.
- Rosenfeld B. Violence risk factors in stalking and obsessional harassment: a review and preliminary meta-analysis. Crim Just Beh 2004;31:9–36.
- Harmon R, Rosner R, Owens H. Obsessional harassment and erotomania in a criminal court population. J Forensic Sci 1995;40:188–96.
- Meloy JR. Communicated threats and violence toward public and private targets: discerning differences among those who stalk and attack. J Forensic Sci 2001;46:1211–3.
- Palarea R, Zona M, Lane J, Langhinrichen-Rohling J. The dangerous nature of intimate relationship stalking: threats, violence and associated risk factors. Behav Sci Law 1999;17:269–83.
- 17. Meloy JR. The psychology of stalking. In: Meloy JR, editor. The psychology of stalking: clinical and forensic perspectives. San Diego, CA: Academic Press, 1998;1–23.
- Meloy JR. Stalking: an old behavior, a new crime. Psychiatr Clin North America 1999;22:85–99.
- Statistics Canada. Criminal harassment. Ottawa, Ontario (CA): Statistics Canada, 2000. Catalogue No.: 85-002-XPE:1-16.
- Purcell R, Pathe M, Mullen P. A study of women who stalk. Am J Psychiatry 2001;158:2056–60.
- Meloy JR, Davis B, Lovette J. Risk factors for violence among stalkers. J Threat Assess 2001;1:1–16.
- Roberts KA. Women's experience of violence during stalking by former romantic partners: factors predictive of stalking violence. Viol Against Women 2005;11:89–114.
- Rosenfeld B, Harmon R. Factors associated with violence in stalking and obsessional harassment cases. Crim Just Beh 2002;29:671–91.
- Farnham FR, James DV, Cantrell P. Association between violence, psychosis, and relationship to victim in stalkers. Lancet 2000;335:199.
- Harmon R, Rosner R, Owens H. Sex and violence in a forensic population of obsessional harassers. Psychol Public Policy Law 1998;4:236–49.
- Mullen PE, Pathe M, Purcell R. Stalkers and their victims. Cambridge, UK: Cambridge University Press, 2000.

- Schwartz-Watts D, Morgan DW. Violent versus nonviolent stalkers. J Amer Acad Psychiatry Law 1998;26:241–5.
- Sheridan L, Davies GM. Violence and the prior victim-stalker relationship. Crim Behav Mental Health 2001;11:102–16.
- Douglas KS, Cox DN. Webster CD. Violence risk assessment: science and practice. Legal and Crim Psych 1999;4:149–84.
- Kropp PR, Hart SD, Lyon DR. Risk assessment of stalkers: some problems and possible solutions. Crim Just Beh 2002;29:590–616.
- White SG, Cawood JS. Threat management of stalking cases. In: Meloy JR, editor. The psychology of stalking: clinical and forensic perspectives. San Diego, CA: Academic Press, 1998;296–315.
- 32. Rosenfeld B. When stalking turns violent: developments in the assessment of stalking risks. In: Brewster MP, editor. Stalking: psychology, risk factors, interventions, and law. Kingston, NJ: Civic Research Institute, 2003;12-1–12-20.
- Kienlen KK, Birmingham DL, Solberg KB, O'Regan JT, Meloy JR. A comparative study of psychotic and nonpsychotic stalking. J Am Acad Psychiatry Law 1997;25:317–47.
- Brewster MP. Stalking by former intimates: verbal threats and other predictors of physical violence. Violence Vict 2000;15:41–54.
- Monahan J. The clinical prediction of violent behavior. Northvale, NJ: Jason Aronson, 1995.
- Burgess AW, Baker T, Greening D, Hartman C, Burgess AG, Douglas JE, et al. Stalking behaviors within domestic violence. J Fam Violence 1997;12:389–403.
- Burgess AW, Harner H, Baker T, Hartman CR, Lole C. Batterers stalking patterns. J Fam Violence 2001;16:309–21.
- Walker LE, Meloy JR. Stalking and domestic violence. In: Meloy JR, editor. The psychology of stalking: clinical and forensic perspectives. San Diego, CA: Academic Press, 1998;139–61.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th ed. TR. Washington, DC: The Association, 2000.
- Anastasi A, Urbina S. Psychological testing. Upper Saddle River, NJ: Prentice Hall, 1997.
- Cascio WF. Applied psychology in personnel management. Englewood Cliffs, NJ: Prentice Hall, 1991.
- Schell BH, Lanteigne NM. Stalking, harassment and murder in the workplace: guidelines for protection and prevention. Westport, CT: Quorum, 2000.
- Tabachnick BG, Fidell LS. Using multivariate statistics, 5th ed. Boston, MA: Pearson, 2007.
- 44. Coleman FL. Stalking behavior and the cycle of domestic violence. J Interpers Violence 1997;12:420–32.
- Rosenfeld B, Lewis C. Assessing violence risk in stalking cases: a regression tree approach. Law Hum Behav 2005;29:343–57.
- Bowlby J. Attachment and loss: vol. 1. attachment. New York: Basic Books, 1969.
- Bowlby J. Attachment and loss: vol. II. separation, anxiety, and anger. New York: Basic Books, 1973.
- Bowlby J. Attachment and loss: vol. III. loss, sadness and depression. New York: Basic Books, 1980.
- Lewis SF, Fremouw WJ, Del Ben K, Farr C. An investigation of the psychological characteristics of stalkers: empathy, problem-solving, attachment, and borderline personality features. J Forensic Sci 2001;46:80–4.
- 50. Meloy JR. Violent attachments. Northvale, NJ: Jason Aronson, 1992.
- Meloy JR. Pathologies of attachment, violence and criminality. In: Goldstein A, editor. Handbook of psychology: forensic psychology. vol. II. New Brunswick, NJ: Wiley, 2003;509–26.
- Tonin E. The attachment styles of stalkers. J Forensic Psychiatry Psychology 2004;15:584–90.
- Hazan C, Shaver P. Conceptualizing romantic love as an attachment process. J Pers Soc Psychol 1987;52:511–24.
- Bartholomew K. Avoidance of intimacy: an attachment perspective. J Soc Pers Relat 1990;7:147–78.
- Brennan KA, Clark CL, Shaver PR. Self-report measurement of adult attachment: an integrative overview. In: Simpson JA, Rholes WS, editors. Attachment theory and close relationships. New York: Guildford Press, 1998;46–76.
- Kienlen KK. Developmental and social antecedents of stalking. In: Meloy JR, editor. The psychology of stalking: clinical and forensic perspectives. San Diego, CA: Academic Press, 1998;51–67.
- Meloy JR. Stalking (obsessional following): a review of some preliminary studies. Aggression and Violent Behavior 1996;1:147–62.
- 58. Dutton DG, Golant SK. The batterer. New York: Basic Books, 1995.

- Whiffen VE. The role of partner characteristics in attachment insecurity and depressive symptoms. Pers Relatsh 2005;12:407–23.
- Dutton DG, Saunders K, Starzomski A, Bartholomew K. Intimacy-anger and insecure attachment as precursors of abuse in intimate relationships. J Appl Soc Psychol 1994;24:1367–86.
- Dutton DG. Behavioral and affective correlates of borderline personality organization in wife assaulters. Int J Crim Justice Behav 1994;17: 26–38.
- Meloy JR. Unrequited love and the wish to kill: diagnosis and treatment of borderline erotomania. Bull Menninger Clinic 1989;53:477– 92.
- Cupach WR, Spitzberg BH, Carson CL. Toward a theory of obsessive relational intrusion and stalking. In: Dindia K, Duck S, editors. Communication and personal relationships. New York: Wiley, 2000;131–46.
- Schlesinger LB. Stalking, homicide, and catathymic process: a case study. Int J Offender Ther Comp Criminol 2002;46:64–74.
- Bowlby J. A secure base: clinical applications of attachment theory. London: Routledge, 1988.
- 66. Mikulincer M, Shaver PR. Attachment theory and emotions in close relationships: exploring the attachment-related dynamics of emotional reactions to relational events. Pers Relatsh 2005;12:149–68.
- 67. Meloy JR, Fisher H. Some thoughts on the neurobiology of stalking. J Forensic Sci 2005;50:1472–80.
- McIntosh WD, Martin LL. The cybernetics of happiness: the relation of goal attainment, rumination, and affect. In: Clark MS, editor. Emotion and social behavior. Newbury Park, CA: Sage, 1992;222–46.
- Walker LE. Post-traumatic stress disorder in women: diagnosis and treatment of battered woman syndrome. Psychotherapy 1991;28:21–9.

- DeSteno D, Valdesolo P, Bartlett MY. Jealousy and the threatened self: getting to the heart of the green-eyed monster. J Pers Soc Psychol 2006;91:626–41.
- Baumeister RF, Smart L, Boden JM. Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. Psyc Review 1996;117:497–529.
- Buunk BP. Jealousy in close relationships: an exchange-theoretical perspective. In: Salovey P, editor. The psychology of jealousy and envy. New York: Guilford, 1991;148–77.
- Leary MR, Baumeister RF. The nature and function of self-esteem: sociometer theory. In: Zanna M, editor. Advances in experimental social psychology. San Diego, CA: Academic Press, 2000;1–62.
- 74. Pyszczynski T, Greenberg J, Solomon S, Arndt J, Schimel J. Why do people need self-esteem? A theoretical and empirical review. Psyc Bull 2004;130:435–68.
- Abrams KM, Robinson GE. Stalking: part II. victims' problems with the legal system and therapeutic considerations. Can J Psychiatry 1998;43: 477–81.
- Rosenfeld B. Recidivism in stalking and obsessional harassment. Law Hum Behav 2003b;27:251–65.

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