

# **Predicting Recidivism Among Male Batterers**

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**By**

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## **Abstract**

The present study examined recidivism risk factors in a sample of 320 male batterers. Recidivism was assessed by an arrest for violence or for any offence during the 5 year follow-up period. The factors associated with violent recidivism among male batterers were similar to those found for other criminal populations (e.g., young, unstable lifestyle, substance abuse, criminal history). There was no evidence that potential offenders were deterred by expectations of negative consequences, either social (e.g., friends would disapprove) or official (e.g., arrested, lose job). The lowest recidivism rates were found for men with the greatest engagement in treatment.

## **Predicting recidivism among male batterers**

Abuse of women by their intimate male partners is a serious social issue (Johnson, 1996; Straus & Gelles, 1986). When a man is identified as having been abusive, it is important to know if he is likely to do it again, and what can be done to reduce his risk of recidivism. Follow-up studies provide one of the most important source of information on recidivism risk. In these studies, abusive men are assessed on a variety of factors and recidivism information is gathered months or years later. By linking the characteristics observed in the initial assessment with subsequent recidivism, it is possible to identify the factors most strongly associated with continued abusive behaviour.

Risk factors can be divided into static, historical variables (e.g., prior offences) and dynamic (changeable) factors. Static factors can be useful for evaluating long-term recidivism potential. Knowledge of dynamic factors is required, however, to evaluate change and predict the timing of new offences. Treatment programs for male batterers aim to induce enduring changes specifically in those problem areas related to abusive behaviour. Because of the link between dynamic risk factors and recidivism, dynamic risk factors are also referred to as “criminogenic needs” (cf. Andrews & Bonta, 1998).

Abusive men would be expected to have any number of life problems (e.g., substance abuse, low self-esteem), but not all of their problems would be expected to be criminogenic. Some problems could be expected to facilitate ongoing abusive behaviour (e.g., attitudes tolerant of abuse), whereas other factors would be expected to be consequences (e.g., history of arrests) or simply correlates of abuse (e.g., high rates of traffic accidents, see Hanson, Cadsky, Harris & Lalonde, 1997).

The present study aimed to identify static and dynamic risk factors for abusive men by examining the extent to which variables assessed pre-treatment and post-treatment predicted recidivism. The results were intended to contribute to our understanding of abusive men as well as to the practical challenges of program development and the evaluation of change.

The choice of predictor variables was guided by theories current at the time the study was designed (1992). The study relied heavily on social learning theory (e.g., Bandura, 1973, 1977) although variables suggested by deterrence and feminist approaches were also considered.

### **Criminal lifestyle**

The literature on male batterers has developed separately from the literature on general criminal offenders. Nevertheless, criminal behaviour is common among abusive men and it is possible that the core processes underlying criminal behaviour may also contribute to partner abuse. According to Caspi et al. (1994), the core personality characteristics associated with criminal behaviour are low constraint and negative emotionality. Low constraint refers to impulsivity, a desire for novelty and adventure, and a rejection of conservative social values. Negative emotionality refers to a tendency towards aggression, perceived mistreatment, social alienation and a vulnerability to stress.

The association between lifestyle impulsivity (low constraint) and criminal behaviour is sufficiently strong that Gottfredson and Hirshi (1990) considered it to be the defining characteristic of all criminal behaviour (including wife assault). Male batterers, like other criminals, are likely to engage in a range of impulsive behaviour, such as reckless driving, substance abuse, and frequent changes of jobs and residences (Hanson et al., 1997). As well, the standard features of antisocial lifestyle have been shown to predict recidivism among wife assault. Wife assaulters are more likely to commit new violent offences if they have a history of substance abuse (Hamberger & Hastings, 1990), prior criminal behaviour, and antisocial personality characteristics (Dutton, Bodnarchuk, Kropp, Hart & Ogloff, 1997).

Moffit, Krueger, Caspi and Fagan (2000), however, contend that it is negative emotionality, not low constraint, that underlies partner abuse. Using data from a well-implemented longitudinal study, they found that the initial association between low constraint and partner abuse disappeared after controlling for the correlation between low constraint and negative emotionality (negative emotionality is shared by both partner abusers and general offenders).

Family violence researchers have tended to emphasise male batterers' negative emotionality rather than low constraint. Dutton (1998), for example, considers that batterers commonly display borderline personality organisation, characterised by poor emotional control, hostility, low stress tolerance, and poor interpersonal attachments. Although family violence

researchers recognise that some batterers engage in general antisocial behaviour, these antisocial batterers are often considered a separate subtype, different from the “typical” batterer (e.g., Holtzworth-Munroe & Stuart, 1994; Saunders, 1992).

Male batterers and general criminals may or may not differ, but there is sufficient similarity between the groups to suggest that the predictors of general recidivism may also predict recidivism among abusive men. Hanson et al. (1997) found a linear relationship between the severity of antisocial behaviour and the severity of partner abuse. Many of the features associated with criminality/lifestyle instability have yet to be examined in recidivism studies with male batterers.

### **Pro-abuse attitudes**

In the general social psychological model of crime, offenders would be expected to have negative attitudes towards conventional institutions, such as school, work, and the criminal justice system (e.g., Andrews & Bonta, 1998). Male batterers may have generally antisocial attitudes, but the most relevant attitudes would be those concerning sex roles and relationships to women. Rather than adopting a trusting, cooperative approach to relationships, abusive men would be expected to adopt a hostile, individualistic approach in which relationships are viewed as a continuous struggle for each partner to maintain dominance.

Previous research has found that male batterers are somewhat more likely than non-abusive men to have attitudes tolerant of wife assault (Dibble & Straus, 1980; Eisikovits, Edleson, Guttman & Sela-Amit, 1991; Hanson et al., 1997). Attitudes may contribute to abuse, but it is also possible that batterers adopt pro-abuse attitude as post-hoc justifications. The relationship of pro-abuse attitudes to recidivism has yet to be examined.

### **Deterrence**

Social policy aimed at controlling male battering has drawn much inspiration from deterrence theory. By requiring police to arrest offenders and by imposing stiff penalties, it is hoped that potential recidivists will fear punishment and, therefore, be motivated to desist. The support for a deterrence effect of arrest in Sherman and Berk's (1984) ground-breaking study was eventually undermined by inconsistent findings in five other jurisdictions (see Garner, Fagan, & Maxwell, 1995; Hirschel, Hutchison & Dean, 1992). Garner and Maxwell's (1998) re-analysis of



the information from all five of these jurisdictions found a deterrence effect of arrest that was consistent across all five jurisdictions but much smaller than that originally reported by reported by Sherman and Berk.

For general offenders, the severity of criminal justice sanctions (e.g., prison, sentence length) appears to have no relationship to recidivism (Gendreau, Goggin & Cullen, 1999). The severity of criminal justice sanctions also appears to have no influence on domestic violence offenders (Davis, Smith & Nickles, 1998). Thistlethwaite, Wooldredge and Gibbs (1998) reported a small deterrence effect for the type of sentence imposed on domestic violence offenders (jail combined with probation appeared more effective than probation, jail, or fine imposed individually). Their results are difficult to interpret, however, because there was no effect for sentence length, or, for that matter, whether or not the offender received any sentence at all. After controlling for pre-existing risk levels, those offenders who received some official sanction (jail, probation and/or fine) recidivated at the same rate as offenders who were acquitted or who had their charges dropped.

Tolman, Edleson and Fendrich (1996) found no relationship between expectations of negative consequences for continued abuse and recidivism. Tolman et al.'s (1996) study, however, did not separate social and criminal justice consequences. Fear of official consequences (e.g., arrest) may have little deterrent effect, but some men may inhibit violent impulses for fear of losing their partner.

### **Motivation to change**

Fear of negative consequences is only one mechanism to motivate behaviour change. Even if there is little support for deterrence theory, motivation to change may, nevertheless, play an important role in preventing recidivism. Offenders who acknowledge their abusive behaviour and express intentions to change should be lower risk than offenders who deny their misbehaviour and resist treatment. Motivational factors are frequently considered in clinical assessments (and court proceedings), but there is little evidence directly linking motivation to recidivism. Court-mandated clients (an indirect measure of motivation) show similar recidivism rates to voluntary clients in most studies (e.g., DeMaris & Jackson, 1987; Hamberger & Hastings, 1990). It does appear, however, that offenders who fail to complete treatment are at increased risk for recidivism (Chen, Bersani, Myers, & Denton, 1989; Hamberger & Hastings,

1988). The treatment drop-out effect could be interpreted as support for a behavioural indicator of motivation, but it could also be attributed to other factors. Drop-outs receive less treatment than completers, and would be expected to differ on a number of characteristics other than motivation (e.g., lifestyle instability, see Cadsky, Hanson, Crawford & Lalonde, 1996).

### **Marital distress**

Marital distress is a consistent correlate of abusive behaviour (Hoteling & Sugarman, 1986), but the relationship between distress and abuse is complex. Abuse can contribute to marital unhappiness and marital conflict can be a trigger for abuse. It is also possible that marital dissatisfaction can provide the motivation to change. Abusive men not infrequently seek treatment due to a perceived threat to their intimate relationship (partner mandated treatment). Consequently, those offenders with lowest levels of marital happiness may be the less likely to recidivate. There is insufficient research, however, to know how marital distress influences recidivism. Woffordt, Mihalic, and Menard (1994) found no overall relationship between marital distress and subsequent physical abuse.

### **Low verbal skills**

One explanation for wife assault is that men resort to physical violence when they lack the skills necessary to resolve conflict through non-aggressive means, such as discussion (e.g., Holtzworth-Munroe, 1992). A direct measure of verbal conflict resolution skills was not available in the current study, but such abilities should be related to general verbal intelligence (which was assessed). Among general criminal populations, there is a small relationship between low intelligence and recidivism (Gendreau, Little & Goggin, 1996). The relationship between IQ and wife assault recidivism has yet to be fully explored, but low intelligence is a plausible risk indicator for violence, domestic or otherwise (Heilburn, 1982).

### **Negative family background**

One of the characteristics most strongly associated with abusive behaviour is a negative family background. In comparison to nonabusive men, abusive men are more likely to have been physically abused as children, and to have witnessed domestic violence (Holtzworth-Munroe, Bates, Smutzler & Sandin, 1997; Hoteling & Sugarman, 1986). The extent to which negative

family background predicts recidivism among already abusive men is less clear. In general, the association between negative family background and wife assault recidivism has been negligible (Aldarondo & Sugarman, 1996; Hamberger & Hastings, 1990; Demaris & Jackson, 1987; Shepard, 1992; Woffordt et al., 1994). It may be that negative family background facilitates the development, but not the persistence, of abusive behaviour. Nevertheless, further research on the relationship between negative family background and recidivism is justified given that abuse during childhood is frequently considered a risk factor for abusive men (Kropp & Hart, 2000; Saunders, 1995).

In summary, there are a number of different factors associated with spouse abuse. Some of these factors would be expected to predict the continued abusive behaviour and other may not. Prior criminal history and low IQ would be expected to be static risk indicators. Among the potentially dynamic predictors are attitudes tolerant of wife assault, substance abuse, lifestyle instability, little fear of negative consequences to relationship, and low motivation to change. Marital distress and negative family background may have little relationship to post-treatment recidivism, even though these features are common among abusive men.

The validity of the various factors as risk predictors was examined using data from a large multi-site study of treatment outcome for male batterers (see Hanson & Wallace-Capretta, 2000; Rooney & Hanson, in press). In total, data was collected from five different treatment programs across Canada. Abusive men completed detailed questionnaires at intake and post-treatment. Information was also collected from the partners of the abusive men, and from a community comparison group of mostly non-abusive couples. Consequently, the study allowed for comparisons between men with and without a history of abuse, and between abusive men who recidivate or not. An important features of the present design was the repeated assessments on the (potentially) dynamic risk factors.

## **Method**

### **Subjects**

The abusive men were recruited from five community treatment programs in Canada. All the programs offered approximately two hours of group treatment each week, for between 12 and 25 weeks. The program philosophies varied (e.g., existential, cognitive-behavioural, feminist),

yet they all aimed to have the men accept personal responsibility for abuse, decrease pro-abuse attitudes, and learn cooperative conflict resolution strategies. Further descriptions of the programs can be found elsewhere (Hanson & Wallace-Capretta, 2000; Hanson & Whitman, 1995; Rooney & Hanson, in press).

A comparison group of mostly non-abusive couples was recruited from the same communities as the samples of abusive men in treatment. In order to attract a high proportion of distressed couples, announcements were placed in social service agencies (e.g., family counselling services, divorce mediation, credit counselling). Couples were excluded if one of the partners was seeking counselling for issues related to abuse, although the comparison group was not expected to be abuse-free.

Basic information describing the treatment sample (356 men; 118 partners) and comparison sample (121 men; 116 partners) is reported in Table 1. Overall, the groups were very similar in age (35 years for men; 34 years for partners), marital status (63% legally married) and annual income (median = \$27,000). The comparison group, however, was more educated (mean = 14.2 years) than the treatment group (mean = 11.9 years,  $p < .001$ ) and reported greater marital satisfaction (men:  $t = 7.0$ ,  $df = 322$ ,  $p < .001$ ; partners:  $t = 8.6$ ,  $df = 162$ ,  $p < .001$ ). Not surprisingly, the comparison group reported fewer prior convictions (23.1% versus 45.8%) and less physical abuse than the treatment group (33.3% vs. 82.8% based on combined reports of men and partners). The rate of physical abuse was less than 100% in the treatment group because all programs accepted men who had inflicted non-contact forms of abuse (e.g., threatening, stalking). Overall, 20% of the women in the comparison group reported attending some form of counselling during the past three months compared to 58% of the women in the treatment group ( $\chi^2 = 33.3$ ,  $df = 1$ ,  $n = 223$ ,  $p < .001$ ).

## **Measures**

**History of Abuse.** Men's self-reports of their own abusive behaviour was assessed with The Abuse Inventory, which was constructed for the study as a global measure of abuse that occurred in the last three months. In contrast to the other abuse measures available at the time (e.g., Straus, 1979), the Abuse Inventory not only considered abusive acts, but also the effect of abuse (e.g., injuries, fear). As well, the Abuse Inventory addressed physical (5 items), psychological (14 items) and sexual abuse (3 items). The total score ( $\alpha = .83$ ) significantly discriminated

male batterers from the controls,  $t(450) = 6.95, p < .001$ . Men's reports of abuse were significantly correlated with their partners' reports of abuse ( $r = .57, p < .001$ ).

Table 1.

Characteristics of batterers in treatment and comparison groups.

|   | Treatment Group |             | Comparison Group |              |
|---|-----------------|-------------|------------------|--------------|
|   | Men             | Women       | Men              | Women        |
| Sample size                                       | 356             | 118         | 121              | 116          |
| Age   | 35.4 (8.9)      | 33.8 (8.5)  | 35.8 (8.2)       | 33.9 (9.4)   |
| Married (%)                                       | 62.8            |             | 62.4             |              |
| Median annual income (\$1,000s)                   | 28.0            |             | 25.0             |              |
| Years of education                                | 11.9 (2.4)      |             | 14.2 (3.6)       |              |
| Any prior convictions (%)                         | 45.8            |             | 23.1             |              |
| Ever physically abusive (%)                       | 82.8            |             | 33.3             |              |
| Marital satisfaction                              | 81.8 (26.3)     | 69.7 (32.6) | 107.1 (34.8)     | 111.8 (29.9) |
| Received counselling during last three months (%) |                 | 57.8        |                  | 20.2         |

Note: Standard deviations in parentheses.

Following a recommendation by Tolman (personal communication, January, 1993), a shortened 21-item version of Tolman's Psychological Maltreatment of Women Scale (PMWI) was used to assess psychological abuse (Tolman, 1989). The internal consistency of the shortened version was high ( $\alpha = .93$ ). This scale also demonstrated discriminant validity, with male batterers scoring significantly higher than the community sample,  $t(464) = 11.47, p < .001$ .

All the measures of abuse were highly intercorrelated for both the men (average  $r = .35$ ) and women (average  $r = .54$ ). Consequently, the abuse measures were combined in order to simplify the analyses. Specifically, the Tolman PMWI and each of the subscales of the Abuse Inventory (physical, sexual, psychological) were standardised then summed into a global measure of abuse. Analyses of the separate subscales did not provide findings substantially different from those found for the combined total score.

### **Predictor variables**

Clarke Vocabulary. The Clarke Vocabulary Scale (Paitich, 1977), a 40-item multiple-choice questionnaire was used to measure verbal aptitude. The concurrent validity of the scale has been previously documented ( $r = .91$  with the WAIS vocabulary scale; Paitich, 1977). Norms for this scale are presented by Paitich (1977). The participants at the French-speaking program did not receive this measure because it was only available in English.

Family History Questionnaire. This scale was constructed specifically for this study as a brief measure of abuse in the family of origin. The measure contains four subscales addressing the following relationships: treatment by mother, treatment by father, mother's treatment of father, and father's treatment of mother. Each subscale contained four questions concerning positive emotional support (e.g., "was kind and supportive"), four questions concerning physical abuse (e.g., "physically hurt me [e.g., hit, kick, slap, burn]"), and between five and seven questions concerning psychological abuse (e.g., yelled at screamed, ignored by needs). Internal consistency was high for both the subscales (alphas of between .91 and .95) and the total score (alpha of .97).

Locke-Wallace Short Marital Adjustment Test (SMAT). The Locke-Wallace (1959) is a well regarded measure of marital distress/happiness and has previously been used in studies of abusive couples (e.g., O'Leary et al., 1989). It contains 15 items and is shorter than the other commonly used measure - the Dyadic Adjustment Scale (DAS; Spanier, 1976). The correlation between the SMAT and the DAS is very high (.93; Spanier, 1976, p.23). The scoring of one item (No. 11) was changed in the current study to give equal weighting to acquiescence of both the male and the female (0,0,10 instead of 0,2,10). The wording was also changed to subsume common-law relationships.

Relationship control. Two questions were asked concerning perceived control in the marital relationship. The first question, “Overall, who has the most control over what happens in your relationship?” was rated on a 5-point scale from “I do” to “she/he does”. The second question, “Would you like to have more control over what happens in your relationship?” was rated on a 5-point scale from “definitely yes” to “definitely no”.

Anger/hostility. As a brief measure of anger, the men answered seven direct questions (e.g., “I have a fiery temper”; alpha = .85) and their partners answered six questions (e.g., “He was annoyed at the slightest criticism”; alpha = .81) concerning the man’s behaviour during the past three months. All questions were rated on a 5-point scale from “1 – strongly disagree” to “5 – strongly agree”.

Expectation of negative consequences. The men were asked “If you were to assault your partner sometime in the future, how likely would it be for the following things to happen?” The list contained eight “Social” items (e.g., “my partner would be upset for a long time”, “my friends would find out”, alpha = .85) and seven “Official” items (e.g., “I would be arrested”, “I would be forced to take treatment”, alpha = .90). Each item was rated on a 5-point scale from “1 – certainly would not happen” to “5 – certainly or almost certainly would happen”.

In order to get an additional measure of social consequences, the female partners were asked “If your partner would ever assault you sometime in the future, how likely would it be for the following things to happen?”. The list included seven items (e.g., “I would be upset for a long time”, “I would leave permanently”, “I would call the police”, alpha = .87).

Internal Motivation: The participants’ motivation to address their problems was assessed using 12 questions, each scored on a 5-point Likert scale (e.g., “I have made a commitment to change the way I treat my partner”, “There is nothing that I can learn from a program on male battering”). The alpha value of the scale was .87.

Consumer satisfaction. Treatment completers were asked 10 questions concerning whether they thought they had benefited from the program (e.g., “The program helped me learn a lot about myself”, “For me, the program was a waste of time” [reverse scored]; alpha = .88). The partners were asked nine questions (e.g., “I feel safer now that my partner has completed the program”, “I am disappointed with how little effect the program had on my partner” [reverse scored], alpha = .78).

Level of Service Inventory – Revised. A self-report version of the Level of Service Inventory – Revised (LSI-R; Andrews & Bonta, 1995; Motiuk, Motiuk, & Bonta, 1992) was used to assess criminogenic risk and needs. Based on a social learning model of crime, the LSI-R subscales address criminal history, and problems with employment/education, finances, relationships, unstable housing arrangements, leisure activities, substance abuse. Previous research on the LSI-R has demonstrated acceptable internal consistency ( $\alpha = .72$ ), inter-rater reliability ( $r = .94$ ) and temporal stability over three months ( $r = .80$ ; Andrews, 1982; Andrews, Kiessling, Mickus, & Robinson, 1986). The LSI-R is one of the best predictors of general criminal recidivism (Gendreau et al., 1996); its relationship to assault recidivism among male batterers has yet to be examined.

Following recommendations of the scale's authors, the version of the LSI-R used in the current study was adapted to focus on the problems associated with spousal assault. Rather than simply addressing peer support for criminal behaviour, the revised version also addressed peer support for spouse assault (e.g., number of current friends who engage in abusive behaviour, friends with negative attitudes towards women).

Similarly, new items were created to address attitudes tolerant of wife assault. The Neutralisations scale contained four brief scenario describing an abusive incident: for example, "Frank comes home from work and sees the house is a mess. He finds his wife, Mary, and slaps her a couple of times. The neighbour calls the police and Frank is arrested. Frank should not be blamed for what he did if (check as many as apply)". What followed was a list of potential excuses or justifications, such as "Frank was under a lot of stress at work" or "Mary had drunk too much". The total number of neutralisations endorsed formed an internally consistent scale ( $\alpha = .82$ ). For the purpose of LSI-R scoring, respondents received one point if they endorsed four or more neutralisations (out of a possible 32).

A second attitude scale was constructed to address a hostile, sexist approach to interpersonal relationships (e.g., "I don't take crap from anybody", "Some of my jokes are 'for the boys only'", "Some of the things I do when I'm out with the boys I know my partner wouldn't approve of". Agreement to each item was rated on a 5-point scale from "1 – not at all" to "5 – very much". The eight items formed an internally consistent scale ( $\alpha = .77$ ). For the purpose of LSI-R scoring, an average score in the agreement range ( $> 3.0$ ) was given one point.



Attitudes towards helpers was assessed by three questions: “I have a lot of respect for people who run treatment programs for abusive men”, “The people who have tried to help me change my abusive behaviour have been kind and fair”, and “The people who have been concerned about how I treat my partner are generally people I do not like” (reverse scored). Each item was rated on a 5-point scale from “1 – strongly agree” to “5 – strongly disagree”. The total score was then recoded as follows: (3 = 0) (4, 5, 6 = 1) (6 through 15 = 2).

In the current sample, the internal consistency of the LSI-R was .90 (alpha). The average level of risk for criminal recidivism (mean = 14.0, SD = 8.0, range of 0 to 43) was in the low to moderate range (0 – 13 is considered “Low Risk/Needs” for male inmates; possible range of 0 to 54; Andrews & Bonta, 1995).

Balanced Inventory of Desirable Responding (Version 3). The BIDR-3 (Paulhus, 1984) contains 40 items comprising two subscales: Self Deception and Impression Management. The Self Deception scale addresses negative personal characteristics that are common but unlikely to be known by others (e.g., “I have sometimes felt like I wanted to kill someone”) whereas the Impression Management addresses common misbehaviours (e.g., “I have taken things that didn’t belong to me” “I always obey traffic laws even if I’m unlikely to get caught” [reverse scored]). Previous research has indicated adequate internal consistency (Paulhus, 1988), with alpha values in the current sample of .69 (Self Deception), .76 (Impression Management) and .82 for the total score.

The scales were intended to assess response bias, but, in the current study, the pattern of correlations suggested that it could equally be considered a measure of irresponsibility and minor antisocial behaviour. The Impression Management scale correlated -.40 with the LSI-R, and low scores predicted failing to complete treatment (Rooney, 1998).

### **Recidivism criteria**

Recidivism information was obtained from the Royal Canadian Mounted Police (R.C.M.P.) national criminal history records on February 11, 1999. These records include arrest and conviction information reported from all police department across Canada. Although the R.C.M.P. records are the most comprehensive records available in Canada, and are the records used for official purposes, they omit some criminal history information (particularly older, minor offences). As well, official criminal history records would not be expected to include all cases of

physical abuse, particularly because most of the men were not convicted for the offences that brought them into treatment.

In order to examine which types of abuse result in arrest, intake reports concerning the men's history of abusive behaviour were obtained from 83 female partners (approximately equal proportions from four of the five sites). Women's reports of serious physical injuries were strongly associated with the likelihood of their partner's arrest for assault ( $r = .86, p < .001$ ). Overall, 42% of the men had a prior or current conviction for assault. When their female partners reported ever receiving physical injuries lasting days (e.g., bruises, cuts, burns;  $n = 38$ ) the rate of arrest increased to 55%, compared to an arrest rate of only 20% for those had never inflicted lasting injuries ( $n = 41$ ). For the 17 women who reported receiving injuries lasting weeks or months (e.g., broken bones, deep cuts), 71% of their partners had been arrested. For the 5 cases in which the women reported potentially permanent physical injuries, the men were arrested in 4 cases (80%). Although the presence of physical injury greatly increases the probability of arrest, it is noteworthy that 20% to 30% of even serious physical injuries (e.g., broken bones) never result in arrest.

Arrest for assault were unrelated to women's reports of being "physically hurt" ( $r = .02, p > .80$ ) or psychologically abused ( $r = -.11, n = 83$ , using a 21-item short version of the Tolman Psychological Maltreatment of Women Scale; Tolman, 1989).

Of the 356 men who provided any intake information, valid criminal history records were obtained for 166. Of the 190 without records, 154 were considered to never have had criminal records, and 36 cases (10.1%) were considered missing. Records were judged to be missing if the men admitted to any prior convictions for violence or any current convictions (for anything). The distribution of missing cases was similar across the sites. Overall, valid follow-up information was available for a combined sample of 320.

Recidivism information was based on both charges and convictions. Each offence was initially coded as a) partner-related violence, b) non-partner violence, and c) non-violent. Included in the partner-related violence categories were all violent offences in which an intimate partner was the most probable victim, such as assault offences, threats, criminal harassment and harassing telephone calls. Weapons offences (e.g., pointing a firearm) would also be included in this category if they were paired with one of the above offences. Although non-partner violence was coded separately from partner-related, there were insufficient number of non-partner violent

reoffences to justify separate analyses (only two – one of which was manslaughter and the victim was unknown). Consequently, the final analyses included only two categories: a) any violent recidivism; and b) any recidivism. Included in the any recidivism category were all violent offences, all non-violent offences (e.g., theft), as well as violations of conditional release that resulted in formal charges (e.g., breach of probation).

### **Procedure**

A standard package of measures was administered to the men as part of their intake assessment. The questionnaires took approximately two hours to complete. For a small number of men with limited reading ability, data were collected using an interview format. For the French-speaking participants at one program, the measures were translated and administered in French. The participants in the study signed an informed consent form indicating that their intake data could be used for research purposes and that their partners would also be asked to participate in the study.

Of the 356 men who completed the intake assessment, 153 failed to complete treatment, and 49 were still in treatment when the study ended. Missing data on the recidivism and/or post-treatment measures reduced the post-treatment sample size to 105 men and 32 partners. Because the factors related to attrition have been extensively examined elsewhere (Rooney & Hanson, in press; Rooney, 1998), the differences between completers and drop-outs will not be repeated here. In general, treatment completers appeared lower risk than treatment drop-outs on a number of indicators (e.g., age, marital status, lifestyle instability).

### **Results**

The association between the predictor variables and abusive behaviour are reported in Table 2 and Table 3. The first two columns of Table 2 report the association between the variables and the severity of prior abuse. Given the low frequency of severe abuse in the community comparison sample, these correlations are roughly equivalent to comparisons between the treatment group and the community comparison group. The third and fourth columns of Table 2 report the extent to which pre-treatment assessments of the treatment group

predicted violent and general recidivism. The recidivism information was only collected for the treatment samples. Further variation in the samples sizes is due to missing data.

Table 2.

Pre-treatment factors associated with prior abuse and recidivism.

|  | History of abuse |                 | Post-treatment recidivism |                 |
|--|------------------|-----------------|---------------------------|-----------------|
|  | Men's reports    | Women's reports | Violent                   | Any             |
| <u>Demographic/static factors</u>              |                  |                 |                           |                 |
| Man's age                                      | -.09<br>(429)    | -.02<br>(215)   | -.19**<br>(305)           | -.13*<br>(305)  |
| Women's age                                    | -.08<br>(409)    | .01<br>(210)    | -.15*<br>(283)            | -.11<br>(283)   |
| Legally married<br>(yes = 1; no = 0)           | .05<br>(377)     | .12<br>(210)    | -.16*<br>(257)            | -.16*<br>(257)  |
| Length of relationship                         | .03<br>(416)     | .02<br>(225)    | -.13*<br>(289)            | -.12*<br>(289)  |
| Currently living together<br>(yes = 1; no = 0) | -.23***<br>(303) | -.22**<br>(162) | -.01<br>(204)             | -.03<br>(204)   |
| Prior arrest for assault                       | .19***<br>(439)  | .34***<br>(225) | .31***<br>(300)           | .35***<br>(300) |
| Any prior convictions                          | .21***<br>(443)  | .28***<br>(234) | .25***<br>(308)           | .37***<br>(308) |
| Verbal Intelligence (Clarke Vocabulary)        | -.15*<br>(291)   | -.28**<br>(129) | -.18**<br>(232)           | -.15*<br>(232)  |
| <u>Developmental Factors</u>                   |                  |                 |                           |                 |
| Negative relationship with mother              | .32***<br>(437)  | .38***<br>(232) | -.00<br>(305)             | .02<br>(305)    |
| Negative relationship with father              | .36***<br>(422)  | .41***<br>(224) | .06<br>(289)              | .08<br>(289)    |
| Mother abused father                           | .28***<br>(412)  | .19**<br>(221)  | -.01<br>(281)             | .01<br>(281)    |

Table 2 continues

Table 2 continued

|   | History of abuse |                  | Post-treatment recidivism |               |
|---|------------------|------------------|---------------------------|---------------|
|   | Men's reports    | Women's reports  | Violent                   | Any           |
| Father abused mother                    | .35***<br>(414)  | .30***<br>(220)  | .00<br>(282)              | .06<br>(282)  |
| Overall conflict in family of origin    | .43***<br>(414)  | .40***<br>(222)  | .01<br>(283)              | .05<br>(283)  |
| <u>Marital conflict</u>                 |                  |                  |                           |               |
| Men's reports                           |                  |                  |                           |               |
| Marital satisfaction<br>(Locke-Wallace) | -.39***<br>(307) | -.41***<br>(170) | .01<br>(207)              | -.08<br>(207) |
| I have most control<br>In relationship  | .08<br>(413)     | -.10<br>(215)    | .02<br>(292)              | .01<br>(292)  |
| I want more control                     | .18***<br>(413)  | .22**<br>(214)   | .00<br>(292)              | -.00<br>(292) |
| I am angry/hostile                      | .46***<br>(438)  | .37***<br>(224)  | .08<br>(300)              | .08<br>(300)  |
| Women's reports                         |                  |                  |                           |               |
| Marital satisfaction<br>(Locke-Wallace) | -.48***<br>(157) | -.68***<br>(171) | .32**<br>(74)             | .33**<br>(74) |
| I have most control<br>In relationship  | -.29***<br>(221) | -.46***<br>(237) | .12<br>(111)              | .21*<br>(111) |
| I want more control                     | .42***<br>(224)  | .60***<br>(239)  | .11<br>(112)              | .08<br>(112)  |
| He is angry/hostile                     | .48***<br>(219)  | .65***<br>(234)  | -.16<br>(110)             | -.18<br>(110) |

Table 2 continues

Table 2 continued

|  | History of abuse |                    | Post-treatment<br>recidivism |                 |
|--|------------------|--------------------|------------------------------|-----------------|
|  | Men's<br>reports | Women's<br>reports | Violent                      | Any             |
| <u>Deterrence</u>                        |                  |                    |                              |                 |
| Negative consequences<br>Expected by men |                  |                    |                              |                 |
| Social                                   | .06<br>(398)     | .02<br>(191)       | .01<br>(286)                 | -.08<br>(285)   |
| Official (law/work)                      | .12*<br>(398)    | .07<br>(191)       | .14*<br>(285)                | .10<br>(285)    |
| <u>Attitudes to treatment</u>            |                  |                    |                              |                 |
| Court-ordered<br>(yes = 1)(no = 0)       |                  |                    | .22***<br>(266)              | .18**<br>(266)  |
| Motivation to change<br>(men's report)   | .60***<br>(419)  | .55***<br>(204)    | .04<br>(296)                 | .07<br>(296)    |
| <u>LSI-R</u>                             |                  |                    |                              |                 |
| Criminal history                         | .23***<br>(439)  | .30***<br>(224)    | .32***<br>(298)              | .45***<br>(298) |
| Work/school                              | .26***<br>(438)  | .16*<br>(225)      | .18**<br>(298)               | .23***<br>(298) |
| Finances                                 | .26***<br>(398)  | .04<br>(201)       | .18**<br>(264)               | .18**<br>(264)  |
| Family/marital                           | .32***<br>(391)  | .22**<br>(196)     | .05<br>(270)                 | .10<br>(270)    |
| Accommodation                            | .21***<br>(432)  | .13<br>(223)       | .23***<br>(292)              | .24***<br>(292) |
| Leisure                                  | .08<br>(433)     | .02<br>(223)       | .13*<br>(292)                | .17**<br>(292)  |

Table 2 continues



Table 2 continued

|                                  | History of abuse |                    | Post-treatment<br>recidivism |                 |
|----------------------------------|------------------|--------------------|------------------------------|-----------------|
|                                  | Men's<br>reports | Women's<br>reports | Violent                      | Any             |
| Negative peers                   |                  |                    |                              |                 |
| Criminal                         | .27***<br>(418)  | .11<br>(214)       | .19**<br>(282)               | .22***<br>(282) |
| Abusive                          | .49***<br>(438)  | .35***<br>(232)    | .08<br>(303)                 | .09<br>(303)    |
| LSI continued                    |                  |                    |                              |                 |
| Substance abuse                  |                  |                    |                              |                 |
| Men's reports                    | .31***<br>(443)  | .16*<br>(247)      | .20**<br>(289)               | .30***<br>(289) |
| Partners' reports                | .28***<br>(210)  | .34***<br>(225)    | .15<br>(104)                 | .16<br>(104)    |
| Psychological                    | .36***<br>(432)  | .35***<br>(224)    | .06<br>(290)                 | .04<br>(290)    |
| Attitudes                        |                  |                    |                              |                 |
| Neutralisations                  | .10*<br>(439)    | .04<br>(233)       | .16**<br>(302)               | .18**<br>(302)  |
| Hostile masculinity              | .15**<br>(440)   | .06<br>(232)       | .17**<br>(304)               | .13*<br>(304)   |
| Negative attitude toward helpers |                  |                    | .05<br>(280)                 | .05<br>(280)    |

Table 2 continues

Table 2 continued

|                       | History of abuse |                 | Post-treatment recidivism |                 |
|-----------------------|------------------|-----------------|---------------------------|-----------------|
|                       | Men's reports    | Women's reports | Violent                   | Any             |
| Attitude total        |                  |                 | .18**<br>(275)            | .17**<br>(275)  |
| LSI Total             | .40***<br>(420)  | .29***<br>(215) | .32***<br>(275)           | .39***<br>(275) |
| BIDR                  |                  |                 |                           |                 |
| Impression management | -.36***<br>(438) | -.13<br>(227)   | -.14*<br>(297)            | -.17**<br>(297) |
| Self deception        | -.36***<br>(435) | -.15*<br>(226)  | .03<br>(291)              | .01<br>(291)    |
| Total                 | -.40***<br>(436) | -.15*<br>(226)  | -.08<br>(293)             | -.10<br>(293)   |

\*p < .05, \*\*p < .01, \*\*\*p < .001.

Note: Sample size in parentheses.

Of the 320 men with follow-up information, 55 (17.2%) recidivated with a violent offence and 82 (25.6%) recidivated with any offence. The follow-up period ranged from 39 to 73 months (average of 58, SD = 7.7)

A number of demographic factors were associated with recidivism. In general, the violent recidivists tended to be young ( $r = -.19, p < .01$ ), single ( $r = .16, p < .01$ ), and have been in comparatively short relationships with their initial victim ( $r = -.13, p < .05$ ). Offenders with the most severe histories of abuse were those most likely to be separated at intake ( $r = -.23$  and  $-.22, p < .01$ , based on men's and partners reports of abuse, respectively). Separation at intake had no relationship to subsequent violent recidivism ( $r = -.01, ns$ ).

Not surprisingly, those offenders with a history of prior arrests for assault had the most abusive histories ( $r = .19$  and  $.34$ ,  $p < .001$ ) and were the most likely to recidivate with a violent offence ( $r = .31$ ,  $p < .001$ ) or any offence ( $r = .35$ ,  $p < .001$ ). The total number of arrests was also associated with a history of abuse ( $r = .21$  and  $.28$ ,  $p < .001$ ) and recidivism (violent,  $r = .25$ ; any reconviction,  $r = .37$ ).

Low verbal IQ (Clarke Vocabulary) was associated with both a history of abuse ( $r = -.15$  and  $-.28$ ,  $p < .05$ ) and recidivism (violent,  $r = -.18$ ,  $p < .01$ ; any,  $r = -.15$ ,  $p < .05$ ).

The men's reports of negative family background were strongly associated with abusive behaviour ( $r = .43$  and  $.40$ ,  $p < .001$ ). However, there was no relationship between a negative family background and recidivism ( $r = .01$  for violent and  $.05$  for any recidivism).

Men in abusive relationships reported low levels of marital satisfaction ( $r = -.39$  and  $-.41$ ,  $p < .001$ ), perceived themselves as angry/hostile ( $r = .46$  and  $.37$ ,  $p < .001$ ) and wanted greater levels of control over what happened in the relationship ( $r = .18$  and  $.22$ ,  $p < .01$ ). None of these factors, however, were related to recidivism. As well, the men's perception of who had the most control in the relationship (them or their partners) was unrelated to a history of abuse or recidivism.

Women in abusive relationship reported low levels of marital satisfaction ( $r = -.68$ ,  $p < .001$ ), considered their partners as angry/hostile ( $r = .65$ ,  $p < .001$ ), and felt as those they lacked control in the relationship ( $r = -.46$ ,  $p < .001$ ). The women's reports of marital satisfactions, however, showed a surprising relationship to recidivism. When the female partners reported the highest levels of marital satisfaction at intake, the men were the most likely to recidivate ( $r = .32$  for violence and  $.33$  for any recidivism,  $p < .01$  for both). As well, women who felt that they had the most control in the relationship were those whose male partners were most likely to recidivate.

The men's expectations for negative social consequences for continued abuse (e.g., partner leave, friends would find out) had no relationship with either a history of abuse or recidivism. However, men were less likely to recidivate violently when their partners stated they would not tolerate further abuse ( $r = -.20$ ,  $p < .05$ ). Fear of official consequences (e.g., arrest) had a small relationship with a history of abuse ( $r = .12$ ,  $p < .05$ ), and, paradoxically, a small positive relationship with violent recidivism ( $r = .14$ ,  $p < .05$ ). Contrary to deterrence theory,

those batterers who anticipated the most serious consequences were those most likely to recidivate.

Men who were court-ordered to treatment were more likely to recidivate ( $r = .22$  for violence,  $r = .18$  for any,  $p < .01$ ) than treatment volunteers. The men's self-reported motivation to change was strongly correlated with the severity of their history of abuse ( $r = .60$ , men's reports,  $r = .55$ , women's reports,  $p < .001$ ), but was unrelated to recidivism.

Almost all of the LSI-R subscales were associated with a history of abuse and subsequent recidivism. The subscales that predicted violent and any recidivism were Criminal History ( $r = .32$  for violent,  $r = .45$  for any,  $p < .001$ ), Work/School ( $r = .18/.23$ ), Finances ( $r = .18/.18$ ), Accommodation ( $r = .23/.24$ ), Leisure ( $r = .13/.17$ ), Criminal Associates ( $r = .19/.22$ ), Substance Abuse ( $r = .20/.30$ ), and Antisocial Attitudes ( $r = .18/.17$ ). The Family/Marital and Psychological subscales were associated with a history of abuse, but were unrelated to recidivism. The LSI-R total score correlated .32 with violent recidivism and .39 with any recidivism.

The overall predictive accuracy of the LSI-R was in the moderate range as indicated by the areas under the receiver operating characteristics curve (ROC). The ROC area was .73 ( $sd = .039$ ) for violent recidivism and .76 ( $sd = .031$ ) for general recidivism. Unlike correlation coefficients, ROC areas are not influenced by recidivism base rates and, consequently, facilitate comparisons across studies (Rice & Harris, 1995). ROC areas range from a low of .50 (chance – no predictive accuracy) to 1.0 (perfect prediction). The value of the area under the ROC curve can be interpreted as the probability that a randomly selected recidivists would have a more deviant score than a randomly selected non-recidivist.

It is interesting to note that the adaptations of the LSI-R for abusive men were only partially successful. The original Criminal Associates scales showed greater predictive accuracy than the revised questions that specifically targeted association with abusive peers. Having abusive peers was strongly correlated with a history of abuse ( $r = .49$ ,  $p < .001$ , men's reports), but unrelated to recidivism.

Attitudes tolerant of wife assault were only weakly related to a history of abuse, but, nonetheless, predicted recidivism. The pre-treatment responses to the Neutralisations scale correlated .16 with violent and .18 with any recidivism ( $p < .01$  for both). Similarly,

pre-treatment responses to the Hostile Masculinity scale predicted both violent ( $r = .17, p < .01$ ) and general recidivism ( $r = .13, p < .05$ ). Pre-treatment Attitudes Toward Helpers was unrelated to recidivism.

The men's responses to the Balanced Inventory of Desirable Responding – Version 3 (BIDR-3) were significantly correlated with a history of abuse and recidivism. The men who reported the largest number of minor, irresponsible acts (low social desirability) also reported the greatest amount of abusive behaviour ( $r = -.40, p < .001$ ). The association between BIDR-3 scores and prior abuse cannot be solely attributed to response bias because men's BIDR-3 scores were also related to abusive behaviour as reported by their partners ( $r = -.15, p < .05$ , BIDR-3 total score). The Impression Management subscale also significantly predicted violent ( $r = -.14, p < .05$ ) and general recidivism ( $r = -.17, p < .01$ ). The direction of the relationship was such that those individuals who admitted to the largest number of minor irresponsible/antisocial acts were those most likely to recidivate.

Controlling for response bias (partial correlations with BIDR-R total scores as the covariate) did not change the pattern of results for the other predictor variables.

Table 3 presents the association between post-treatment assessments and recidivism. Post-treatment assessments were only available for those men who completed treatment ( $n = 136$ ), and, for specific measures, the sample was further reduced due to missing data. Given that the treatment completers differed from those who dropped out (see Rooney & Hanson, in press), the analyses based on the pre-treatment assessments are repeated for the subsample of treatment completers in order to facilitate comparisons with the full sample reported in Table 2. The last two columns of Table 3 report the association between change and recidivism. The change scores were calculated by subtracting the pre-treatment score from the post-treatment score.

The men who were married at post-treatment were less likely to recidivate ( $r = -.28, p < .01$ ) than the men who were single or who had separated/divorced. Among treatment completers, those who were living together at pre-treatment were more likely to recidivate violently than those who were separated ( $r = .27, p < .05$ ). This finding is unlikely to be stable given it was not observed in the full sample (see Table 2:  $r = -.01, n = 204$ ).

The men's reports of marital satisfaction were unrelated to recidivism, whether it was assessed pre-treatment, post-treatment or as change scores. Similarly, the men's self-reported anger and desire for control in the relationship were not associated with recidivism.

Table 3.

The relationship to recidivism of pre-treatment assessments, post-treatment assessments and change scores.

|                           |     | Pre-treatment assessment and recidivism |        | Post-treatment assessment and recidivism |        | Pre-post change (improvement) and recidivism |       |
|---------------------------|-----|---|--------|--|--------|--|-------|
|                           |     | Violent                                 | Any    | Violent                                  | Any    | Violent                                      | Any   |
|                           | n   |   |        |  |        |  |       |
| Legally married           | 84  | -.15                                    | -.24*  | -.21                                     | -.28** | -.11   | -.08  |
| Currently living together | 64  | .27*                                    | .08    | .08                                      | -.13   | -.23   | -.24  |
| <u>Marital conflict</u>   |     |   |        |  |        |  |       |
| Men's reports             |     |   |        |  |        |  |       |
| Locke-Wallace             | 48  | -.00                                    | -.06   | .04                                      | -.04   | .04  | .01   |
| I have control            | 91  | .02                                     | -.03   | .08                                      | .08    | .05  | .10   |
| I want control            | 91  | -.03                                    | .02    | -.05                                     | .02    | -.02   | .00   |
| I am angry                | 102 | .05                                     | -.00   | -.12                                     | -.12   | -.14   | -.09  |
| Partner reports           |     |   |        |  |        |  |       |
| Locke-Wallace             | 16  | .30                                     | .30    | .28                                      | .28    | -.05   | -.05  |
| I have control            | 26  | .25                                     | .25    | .12                                      | .12    | -.13   | -.13  |
| I want control            | 26  | -.37                                    | -.37   | -.60**                                   | -.60** | -.28   | -.28  |
| He is angry               | 26  | -.51**                                  | -.51** | .20                                      | .20    | .50**  | .50** |

Table 3 continues

Table 3 continued

|  |     | Pre-treatment assessment and recidivism |       | Post-treatment assessment and recidivism |       | Pre-post change (improvement) and recidivism |       |
|--|-----|---|-------|--|-------|--|-------|
|  |     | Violent                                 | Any   | Violent                                  | Any   | Violent                                      | Any   |
|  | n   |   |       |  |       |  |       |
| <u>Deterrance</u>  |     |   |       |  |       |  |       |
| Further abuse will damage/ end relationship (partner report) | 26  | .16                                     | .16   | -.16                                     | -.16  | -.42*  | -.42* |
| <u>Attitudes toward treatment</u>                            |     |   |       |  |       |  |       |
| Motivation to change   | 97  | .10                                     | .15   | .04                                      | .00   | -.08   | -.17  |
| Fail to complete treatment                                   | 274 |   |       | .18**                                    | .14** |  |       |
| <u>Satisfaction with treatment provided</u>                  |     |   |       |  |       |  |       |
| men's reports  | 104 |   |       | .05                                      | .00   |  |       |
| partner reports  | 32  |   |       | -.18                                     | -.18  |  |       |
| <u>LSI-R subscales</u>                                       |     |   |       |  |       |  |       |
| Abusive peers  | 103 | -.03                                    | .05   | -.08                                     | .00   | -.06   | -.05  |
| <u>Men's substance abuse</u>                                 |     |   |       |  |       |  |       |
| men's reports  | 98  | .21*                                    | .27** | .01                                      | .18   | -.22*  | -.15  |
| partner reports  | 26  | .12                                     | .12   | -.11                                     | -.11  | -.22   | -.22  |

Table 3 continues



Table 3 continued

|   |     | Pre-treatment assessment and recidivism |     | Post-treatment assessment and recidivism |        | Pre-post change (improvement) and recidivism |       |
|---|-----|---|-----|--|--------|--|-------|
|   |     | Violent                                 | Any | Violent                                  | Any    | Violent                                      | Any   |
|   | n   |   |     |  |        |  |       |
| Attitudes                                     |     |   |     |  |        |  |       |
| Neutralisations                               | 102 | .11                                     | .13 | -.01                                     | -.04   | -.16   | -.21* |
| Hostile masculinity                           | 103 | .18                                     | .07 | -.03                                     | -.05   | -.20*  | -.11  |
| Negative attitudes toward treatment providers | 100 | .14                                     | .11 | .31**                                    | .36*** | .14  | .23*  |
| Attitude total                                | 96  | .24*                                    | .20 | .17                                      | .26*   | -.11   | .03   |

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

The partners' post-treatment reports of marital satisfaction were positively associated with recidivism, although the effect was not significant due to the small sample size ( $n = 16$ ). Those women who wanted more control over their relationship at post-treatment were less likely to be revictimized ( $r = -.60$ ,  $p < .01$ ,  $n = 26$ ) than those who reported being content with the current power balance in their relationship. Similarly, those women who were less tolerant of an abusive relationship at post-treatment than pre-treatment showed a reduced chance of revictimisation ( $r = -.42$ ,  $p < .05$ ).

The women's reports of the men's anger showed a confusing pattern. At pre-treatment, the women who stated that their partners were very angry were the least likely to be revictimized ( $r = -.51$ ,  $p < .01$ ); however, an increase in reported anger between pre-treatment and post-treatment was associated with increased recidivism ( $r = .50$ ,  $p < .01$ ).

The men's self-reported motivation to change was unrelated to recidivism. Nevertheless, those offenders who failed to complete treatment were higher risk to recidivate than treatment completers ( $r = .18$  for violence,  $r = .14$  for any,  $p < .05$ ). For those men who completed

treatment, neither the men's nor the women's reports of overall satisfaction with the program were related to recidivism.

Three LSI-R subscales were repeated at post-treatment: Abusive Peers, Substance Abuse, and Attitudes. Neither the pre-treatment nor post-treatment assessments of Abusive Peers were significantly associated with recidivism. The men's pre-treatment assessment of Substance Abuse problems was significantly associated with violent ( $r = .21, p < .05$ ) and any ( $r = .27, p < .01$ ) recidivism, but no effects were found for the post-treatment measures. In fact, a reduction in substance abuse problems was associated with an increase in violent recidivism ( $r = -.22, p < .05$ ).

For the Attitude subscale, recidivism was predicted by the post-treatment measures ( $r = .17/.26$ ) as well as by the pre-treatment measures ( $r = .24/.20$ ). The individual components of the Attitude measure, however, showed complex and contradictory patterns. The Neutralisation and Hostile Masculinity attitudes scales showed a pattern similar to that found for Substance Abuse. The pre-treatment assessments showed small positive correlations with recidivism (see also Table 2), no effects were found for the post-treatment measures, and improvements on these attitudes scales were associated with increased recidivism (a counter-intuitive finding). The third component of the Attitude subscale, Negative Attitudes Toward Helpers, showed no relationship to recidivism at pre-treatment, but post-treatment measures were associated with both violent ( $r = .31, p < .01$ ) and any ( $r = .36, p < .001$ ) recidivism.

### **Combinations of risk factors**

Multiple regression analysis were conducted to identify an efficient set of variables for predicting violent and general recidivism. Included in these analyses were variables with significant zero-order correlations and for which data were available for most of the sample: man's age, marital status, length of relationship, verbal IQ, LSI-R total score, BIDR-3 Impression Management, treatment completion and whether the man was court-ordered to treatment. Complete data was available for 125 men. The individual criminal history items were not entered separately because they were already included in the LSI-R. The Official Deterrence variable was also not included because the effect was small and opposite to the predicted direction.

For the prediction of violent recidivism, step-wise regression selected only two variables that contributed unique variance: the LSI-R (beta = .30,  $p < .001$ ) and the man's age (beta = -.24,  $p < .01$ ;  $R = .44$ , adjusted  $R^2 = .18$ ). When all 8 variables were entered, the multiple R was .49 and the adjusted  $R^2$  was .19 (a non-significant increase,  $n = 125$ ).

For the prediction of any recidivism, the only unique predictor was the LSI-R total score (beta = .46,  $p < .001$ , adjusted  $R^2 = .20$ ,  $n = 125$ ). When all 8 variables were entered, the multiple R was .48 and the adjusted  $R^2$  decreased slightly (.18).

## Discussion

This study aimed to identify recidivism risk factors for male batterers. In general, the factors associated with recidivism among male batterers appeared to be the same factors associated with recidivism in the general criminal populations (see Gendreau et al., 1996). The batterers who were detected committing new violent offences tended to be young, unmarried, have unstable lifestyles, low verbal intelligence, negative attitudes, and a history of criminal behaviour. A structured risk measure designed to assess the risk and needs of general offenders (The Level of Service Inventory – Revised, Andrews & Bonta, 1995) was effective in predicting violent and general recidivism among male batterers.

The men's reports of marital satisfaction and conflict were strongly related to a history of abuse, but were unrelated to recidivism. Not surprisingly, the women who reported that their partners had been abusive were the most likely to report marital conflict and dissatisfaction. The partners' marital satisfaction, however, was positively associated with recidivism: the more satisfied women were their existing relationship with abusive men, the more likely they were to be abused again. It was not the women who felt controlled by their partners who were at risk for re-victimisation; the future victims were those who felt complacent.

The present results should not be interpreted to mean that the women were unable to anticipate the risk presented by their partners. When women are directly asked whether they expected to be revictimized, their predictions show moderate accuracy (Weisz, Tolman & Saunders, 2000). As well, it appears that valid risk scales for the men can be derived solely from information provided by their partners (Goodman, Dutton, & Bennett, 2000). In the present

study, the women were not directly asked whether they expected their partners to continue to be abusive.

The recidivists tended to be men who were poorly connected with the treatment programs. Recidivists were over-represented among those court-ordered to treatment, those who failed to complete treatment, and those who had negative attitudes toward the treatment providers. A direct self-report measure of motivation for treatment was associated with a history of abuse, but was unrelated to subsequent recidivism. Further work is required to develop useful self-report measures of motivation to change among male batterers (see Levesque, Gelles & Velicer, 2000).

There was little evidence to suggest that the men were deterred by expected negative consequences for continued abuse. Expectations concerning negative consequences on their social relationships (friends, family, spouse) were unrelated to prior or subsequent abuse. The men who said that they expected negative official consequences (e.g., police, court) were, in fact, somewhat more likely to recidivate than those who did not expect to be officially sanctioned. Such findings are contrary to deterrence theory, but are consistent with previous research. Tolman et al. (1996) also found no relationship between negative expectations and recidivism among male batterers.

Among university students, Brown and Taglieri (1999) found that the expectation of getting caught were positively related to driving drunk, another finding opposite to what deterrence theory would predict. The current results do not support the view that increasing criminal sanctions is likely to have any significant effect on persistent batterers.

Batterers are most likely to change when interventions focus on factors related to risk. One criteria for identify dynamic risk factors is to consider whether changes on potentially dynamic risk factors are associated with changes in recidivism rates. Comparisons between the pre-treatment and post-treatment evaluations indicated that the men who completed treatment changed in the predicted direction on most of the dynamic measures. If treatment results in stable, enduring changes, then the post-treatment evaluations should be more strongly related to recidivism than the pre-treatment evaluations.

None of the men's characteristics were more strongly related to recidivism at post-treatment than pre-treatment. Marital conflicts, motivation to change, and abusive peers show no relationship to recidivism. Substance Abuse and pro-abuse attitudes were positively related to

recidivism at pre-treatment, but self-reported improvements were associated with increased (not decreased) recidivism. Post-treatment assessments of Attitudes Toward Helpers was more strongly associated with recidivism than pre-treatment assessments, but this comparison is hardly meaningful given that the helpers and the abusive men had just met at pre-treatment.

The failure of post-treatment assessments to predict recidivism can be attributed to several factors. The men may have learned what to say on the questionnaires, but quickly reverted back to their typical values and behaviour after the program was over. The reduced variability of the post-treatment assessments also makes it difficult for post-treatment assessments to predict recidivism. Many of the high risk offenders failed to complete treatment; as well, if treatment was effective, then those who completed treatment should have characteristics that approximate the normal range.

Nevertheless, the present results suggest that it is difficult to assess whether abusive men have benefited from treatment. Those men who failed to complete treatment appeared at increased risk. Among the treatment completers, however, few variables differentiated between the recidivists and non-recidivists. Those men who had positive attitudes towards the treatment staff were less likely to recidivate, but post-treatment assessments on many of the other factors commonly used to assess risk (e.g., substance abuse, marital satisfaction, sexist attitudes) were not unrelated to recidivism.

A major limitation of the current study was that violent recidivism was assessed only through official records. An arrest for a violent offence cannot be considered a sensitive measure of partner abuse, but, with this population, it is a plausible index of serious physical assault against a female partner. Only about half of the abusive men in treatment had ever been arrested. The men arrested for assault were those most likely to have inflicted serious physical injury on their partners. The outcome criteria (re-arrest for violence) obviously misses many cases of abuse, but it could also include some cases of assault against non-intimates (e.g., bar fights) because the victims of the new assault convictions were not identified in the criminal records. Given the extremely low rates of re-arrest for general violence (e.g., robbery, assault police officer), it is likely that most of the victims of the official assaults were, in fact, intimate partners.

Contrary to the findings of Moffit et al. (2000), the present study found that variables associated with lifestyle instability (low constraint) were among the best predictors of violent recidivism among male batterers. The apparent similarity of risk predictors for male batterers

and general offenders, however, could be attributed to a common outcome criteria (arrest). Some of the risk factors, such as young age and low verbal IQ, could be substantially related to the probability of getting caught and process by the criminal justice system. A related hypothesis is that the most physically violent forms of abuse are linked to low constraint whereas less physically violent forms of abuse are linked to other factors, such as negative emotionality.

Another limitation of the current findings was that the effects for the individual risk factors tended to be small ( $r = .10$  to  $.20$  range) and have yet to be fully replicated. Previous research has found support for some risk factors, such as alcohol abuse (Hamberger & Hastings, 1990; Leonard & Senchak, 1996), but the results of previous studies have been inconsistent for many other variables, such as age (Chen et al., 1989; Hamberger & Hastings, 1990; Woffordt et al., 1994), education (Hamberger & Hastings, 1990; Syers & Edelson, 1992) and witnessing violence as a child (Demaris & Jackson, 1987; Hamberger & Hastings, 1990). Such variability across studies is anticipated given small effects and relatively small samples. The identification of reliable risk factors for male batterers will require systematic integration of individual findings through meta-analysis, as has been done for sexual offenders (Hanson & Bussière, 1998) and mentally disordered offenders (Bonta, Law & Hanson, 1998).

Once empirically validated risk factors have been identified, the next step would be to combine these factors into a structured risk assessments. The results of the current study, however, question whether a special risk scale is required for male batterers. The LSI-R (Andrews & Bonta, 1995) appeared to be an effective risk assessment tool with this sample. A recent evaluation of a special scale for male batterers, the Spousal Assault Risk Assessment (SARA; Knopp & Hart, 2000), found an ROC area of  $.70$  ( $n = 100$ ) for predicting spousal assault recidivism compared to an ROC area of  $.73$  ( $n = 273$ ) for the LSI-R in the current study. Those who propose new risk scales for male batterers need to justify the benefit of the speciality scales in comparison to the already established scales, such as the LSI-R (Andrews & Bonta, 1995) or the Violence Risk Appraisal Guide (Quinsey, Harris, Rice & Cormier, 1998).

## Conclusions

Many of the factors associated with a history of abusive behaviour are also associated with violent recidivism among male batterers. The persistent batterer tends to be young, unmarried, with a history of criminal behaviour. His lifestyle is unstable, characterised by frequent moves, poor accommodation, unstable employment, substance abuse, and little commitment to prosocial values. He adopts an sexist, adversarial approach to intimate relations, and he has recently begun a relationship with a women who is willing to tolerate such behaviour. He attend treatment reluctantly, where he has a negative relationship with staff, or simply drops out.

Although the portrait of the persistent batterer should be familiar to those working with this population, it is important to note that some well-established correlates of abuse were not found to be predictors of recidivism. Male batterers are likely to have negative family backgrounds, subjective distress and marital conflicts, but none of these factors were risk factors in the current study. As well, some factors commonly believed to inhibit abusive behaviour (e.g., expectations of getting caught and punished) showed no meaningful relationship with recidivism. Consequently, those developing interventions for abusive men should carefully consider the extent to which the characteristics targeted by the program are actually related to recidivism risk.

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