#### **U.S. Department of Justice** Office of Justice Programs *National Institute of Justice*



# National Institute of Justice

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Jeremy Travis, Director

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## **Issues and Findings**

**Discussed in this Brief:** Findings about partner violence from the longitudinal Dunedin Multidisciplinary Health and Development Study of a representative birth cohort of 1,037 New Zealand men and women born between April 1, 1972, and March 31, 1973.

**Key issues:** Dunedin researchers decided to study partner violence as part of their longitudinal study because they suspected that some study members continued antisocial activities into adulthood in a form not well represented by measures of delinquent behavior. Questions were included in the phase 21 (age 21) interview to determine the extent of partner violence among study members.

**Key findings:** Characteristics of cohort members who were involved in partner violence include the following:

• Although both partners in a relationship may not recall the same acts in precisely the same way, 70– 80 percent of one partner's report was in agreement with the other partner's report on whether physical violence took place and on the extent of the abuse.

• Risk factors in childhood and adolescence for male perpetrators included poverty and low academic achievement. Female perpetrators showed risk factors of harsh family discipline and parental strife. Both male and female perpetrators also had histories of aggressive behavior.

# <sup>July 1999</sup> Findings About Partner Violence From the Dunedin Multidisciplinary Health and Development Study

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by Terrie E. Moffitt and Avshalom Caspi

The 1992-96 National Crime Victimization Survey (NCVS) indicates that in 1996 victimization by intimatesspouses, ex-spouses, boyfriends, girlfriends, and former boyfriends and girlfriends-accounts for about 21 percent of the violent crime experienced by women and about 2 percent of the violence experienced by men. Rates of nonlethal violence are highest among women ages 16-24 and women in low-income households.<sup>1</sup> These statistics highlight the importance of studying partner violence among young adults, both married and unmarried, who represent all socioeconomic backgrounds.

The Dunedin Multidisciplinary Health and Development Study is a 21-year investigation of a representative birth cohort of infants born between April 1, 1972, and March 31, 1973, in Dunedin, a city of approximately 120,000 people on New Zealand's South Island.<sup>2</sup> Perinatal data for 1,139 births were obtained at delivery. When these children were traced at age 3, 91 percent, or 1,037, were assessed, forming the base sample for the longitudinal study. The base sample was composed of 535 (52 percent) males and 502 (48 percent) females. Fewer than 7 percent of the study members identified themselves as nonwhite (Maori or

Polynesian). The social class and ethnicity of their families matched those of the South Island's general population.

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The Dunedin cohort was reassessed at ages 5, 7, 9, 11, 13, 15, 18, and 21, with 992 (97 percent) of the 1,020 living members of the age 3 base sample (51 percent male) participating in the last assessment at age 21 in 1993-94. This history of reassessment at regular intervals is especially important for the research on partner violence. Since their childhood, study members have revealed problem behaviors; their confidentiality has never been violated, and they have learned to expect no intervention from the researchers (unless imminent serious danger was posed to themselves or others). As a result, by the time they were 21 years old, they were comfortable giving frank responses to questions about partner violence. This circumstance offers a special advantage over studies involving self-reports from perpetrators held in correctional institutions or remanded for treatment.

This Research in Brief summarizes the findings about partner violence from the Dunedin study. Among the results are that partner violence is strongly linked to cohabitation at a young age; a variety of mental illnesses; a background of family

#### Research in Brie

## **Issues and Findings**

continued...

• The strongest risk factor for both male and female perpetrators and victims was a record of physically aggressive delinquent offending before age 15. More than half the males convicted of a violent crime also physically abused their partners.

- About 27 percent of women and 34 percent of men among the Dunedin study members reported they had been physically abused by their partner. About 37 percent of women and 22 percent of men said they had perpetrated the violence.
- Domestic violence is most prevalent among cohabitating couples.
- Sixty-five percent of females who suffered serious physical abuse and 88 percent of male perpetrators had one or more mental disorders (as defined by the American Psychiatric Association in the *Diagnostic* and Statistical Manual of the American Psychiatric Association ["DSM–III–R"]).

• Women who had children by age 21 were twice as likely to be victims of domestic violence as women who were not mothers. Men who had fathered children by age 21 were more than three times as likely to be perpetrators of abuse as men who were not fathers.

**Target audience:** Mental health practitioners; emergency room and general practice medical professionals; victim advocates; juvenile delinquency, substance abuse, and violence specialists and researchers; public health, juvenile justice, and criminal justice officials and practitioners; juvenile court administrators; judges; social scientists; researchers; and others concerned about violence prevention. adversity, dropping out of school, and juvenile aggression; conviction for other types of crime, especially violent crime; drug abuse; long-term unemployment; and parenthood at a young age.

#### Why study partner violence?

The Dunedin study began to examine partner violence because partner violence research is a natural extension of the study's earlier research on childhood behavior problems and teen delinquency. Although official crime statistics from police and courts suggest that offending declines rapidly during young adulthood, Dunedin researchers suspected that some delinquents' antisocial activities were continuing, but in a form not easily detected by official crime statistics; for example, as abuse of family members or intimates in the home. To test this possibility, a decision was made to examine partner violence among study members as they made the transition to young adulthood, became involved in serious relationships, and began to form new families. Given the unique features of this longitudinal study, it became important to apply the study's resources to understanding the origins of partner violence.

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The Dunedin cohort, it is important to note, is a *birth* cohort, not a community sample. Followup was conducted with all individuals in the cohort; for example, those who had and had not used battered women's shelters and those who had and had not been convicted of battery.

When the study members turned 21 years old (phase 21 of the Dunedin

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Prevalence, Incidence, and Consequences of Violence Against Women: Findings From the National Violence Against Women Survey (Research in Brief), by Patricia Tjaden and Nancy Thoennes, NCJ 172837

Stalking in America: Findings From the National Violence Against Women Survey (Research in Brief), by Patricia Tjaden and Nancy Thoennes, NCJ 169592

Batterer Programs: What Criminal Justice Agencies Need to Know (Research in Action), by Kerry Murphy Healey and Christine Smith, NCJ 171683

Legal Interventions in Family Violence: Research Findings and Policy Implications (Research Report), by NIJ and the American Bar Association, NCJ 171666 Understanding Violence Against Women, by Nancy A. Crowell and Ann W. Burgess (eds.), National Academy Press

Violence in Families: Assessing Prevention and Treatment Programs, by Rosemary Chalk and Patricia King (eds.), National Academy Press

Violence by Intimates: Analysis of Data on Crimes by Current or Former Spouses, Boyfriends, and Girlfriends (Bureau of Justice Statistics Factbook), by Lawrence A. Greenfeld, Michael R. Rand, Diane Craven, Patsy A. Klaus, Craig A. Perkins, Cheryl Ringel, Greg Warchol, Cathy Maston, and James Alan Fox, NCJ 167237

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study), questions about partner violence were embedded in a 50-minute standardized interview about intimate relationships. Information was gathered on both positive and negative conflict-negotiation behaviors occurring during the past 12 months. Included in the interview were the items of the Conflict Tactics Scales (CTS)<sup>3</sup> and other items from published domestic violence interviews. Although the CTS is controversial,<sup>4</sup> it has been used in numerous clinical studies as well as in U.S. national surveys on the prevalence of domestic violence. The CTS was included because it allowed comparison of the Dunedin findings with research on partner violence in the United States and elsewhere.

# How trustworthy are the data? Do partners' reports about abuse in their relationship agree?<sup>5</sup>

The scientific study of partner abuse is controversial in part because there are concerns about the accuracy of data. Abuse data are usually collected by asking respondents to "self-report" their experiences. The majority of studies usually interview only one member of each couple. Can these self-reports of abuse be trusted? To answer this question, the extent to which partners' responses were in agreement was analyzed.

Prior to phase 21, 474 study members indicated they were involved with a partner they had been dating for at least 6 months, were married to, or were living with. Of these, 360 (76 percent) brought their partners along to participate in phase 21. Study members and their partners were interviewed separately (simultaneously) with identical questions by different interviewers who did not know the responses provided by the other member of the couple-and their confidentiality was guaranteed. Couples did not know before they arrived that they would be asked about partner abuse, eliminating any opportunity to coordinate their responses prior to the interview. Before interviewers turned to the topic of partner abuse, each participant was given the opportunity to decline discussion of that topic, but none of the participants refused. The full set of questions measured both physical and psychological abuse (see exhibit 1).

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#### Exhibit 1. Item content of physical and psychological partner abuse scales

#### **Physical Abuse Scale**

Participants were asked if they had in the past year: Physically twisted your partner's arm<sup>a</sup> Pushed, grabbed, or shoved your partner<sup>a, b</sup> Slapped your partner <sup>a, b</sup> Physically forced your partner to have sex<sup>a</sup> Shaken your partner<sup>a</sup> Thrown or tried to throw your partner<sup>a</sup> Thrown an object at your partner<sup>a, b</sup> Choked or strangled your partner<sup>a, b</sup> Kicked, bit, or hit your partner with a fist<sup>a, b</sup> Hit or tried to hit your partner with something<sup>a, b</sup> Beaten up your partner<sup>a, b</sup> Threatened your partner with a knife or gun<sup>a, b</sup> Used a knife or gun on your partner<sup>a, b</sup>

#### Psychological Abuse Scale

Participants were asked if they had in the past year: Damaged a household item or some part of the home out of anger<sup>a</sup> Deliberately disposed of or hidden an important item of your partner's<sup>a</sup> Become very upset if dinner/housework/home repair work was not done<sup>a</sup> Purposely damaged or destroyed your partner's clothes/car/other<sup>a</sup> Insulted or shamed your partner in front of others<sup>a</sup> Locked your partner out of the house<sup>a</sup> Told your partner that he/she could not work or study<sup>a</sup> Tried to stop your partner from seeing/talking to family or friends<sup>a</sup> Restricted your partner's use of the car or telephone<sup>a</sup> Made threats to leave<sup>a</sup> Tried to turn family, friends, or children against your partner<sup>a</sup> Ordered your partner around<sup>a</sup> Frightened your partner<sup>a</sup> Treated your partner like he/she was stupid<sup>a</sup> Given in to your partner but planned revenge<sup>a</sup> Ridiculed your partner<sup>a</sup> Threatened to hit or throw something at your partner in anger<sup>b</sup> Told your partner he/she was ugly or unattractive<sup>a</sup> Become abusive after using drugs or alcohol<sup>a</sup> Thrown, smashed, hit, or kicked something during a disagreement<sup>b</sup>

<sup>a</sup>From Margolin's "Domestic Conflict Scale" or "Conflict Inventory" (Margolin, G., B. Burman, R.S. John, and M. O'Brien, *The Domestic Conflict Instrument*, Los Angeles: University of Southern California, 1990).

<sup>b</sup>From Straus's "Conflict Tactics Scales" (Straus, M.A., "Measuring Intrafamily Conflict and Violence: The Conflict Tactics Scales," *Journal of Marriage and the Family* 41(1979): 75–88).



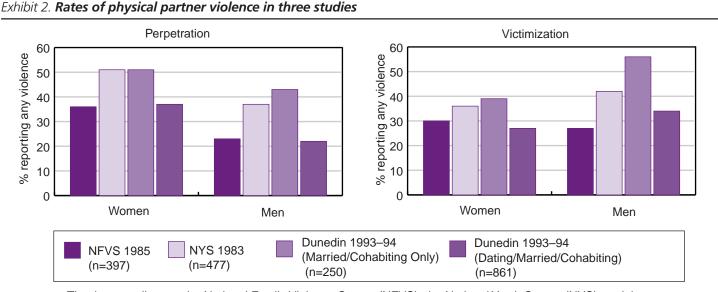
Perpetrators' reports of their own abuse behaviors were compared with their partners' reports of victimization to determine if couple members concurred about the perpetrator's behaviors. Couples' responses to the interview showed that agreement about whether specific abusive behaviors had happened was poor, as has been suggested by previous research. Study members and their partners did not agree about whether, for example, one of them had tried to strangle the other. However, agreement improved dramatically when the individual items were summed into scales that counted the variety of different abuse behaviors performed in the past year. Although members of a couple may not recall exactly the same acts, they can agree on whether or not abuse took place and on the extent of the abuse. Agreement was even stronger when random measurement errors were removed statistically.6 This agreement reveals that disagreement between partners is due to random forgetfulness; neither partner was deliberately misrepresenting the facts in an attempt to mislead the interviewer. The statistical correlations indicate that about 70–80 percent of one partner's report agreed with the other partner's report. Contrary to expectations, agreement between partners did not vary with the perpetrator's gender or with the type of abusive behavior.

These findings suggest that the data gathered may confidently be used for research on the correlates and consequences of partner abuse. The resulting high level of confidence in the data can be attributed to the fact that interviews were conducted in a setting in which participants knew there was no risk of prosecution or requirement to participate in a treatment program if they revealed abuse.

## How prevalent is partner violence in the Dunedin sample?<sup>7</sup>

Between one-fifth and one-third of all Dunedin study members reported they had experienced one or more of the behaviors on the CTS physical abuse scale in the past year. Exhibit 2 shows the prevalence rates of physical partner violence by and against men and women. Data from the Dunedin study were compared with data from respondents under age 25 in the 1985 National Family Violence Survey (NFVS; n=397)<sup>8</sup> and respondents under age 24 in the 1983 National Youth Survey (NYS; n=477).<sup>9</sup>

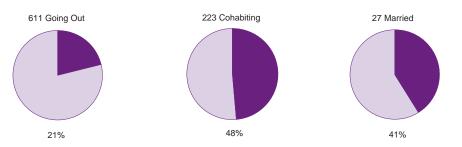
Rates from all three surveys were calculated using the same CTS interview questions, which measured physical violence in the past year. The Dunedin phase 21 rates are shown first for cohabiting and married study members only (n=250) to provide direct comparison with NFVS and NYS, which included cohabiting and married couples only. Shown fourth are Dunedin rates for married, cohabiting, and dating individuals combined (n=861, excluding 80 study members who had not gone out with anyone in the past year). Exhibit 2 shows that Dunedin prevalence rates are similar to the other two national samples.



The three studies are the National Family Violence Survey (NFVS), the National Youth Survey (NYS), and the Dunedin Multidisciplinary Health and Development Study.



# Exhibit 3. Rates of involvement in physical partner violence by relationship type (Dunedin males and females)

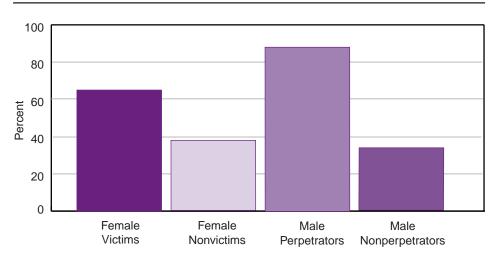


The blackened areas indicate the percentage who have perpetrated any physical violence against a partner during the past year.

Note: Eighty are not shown because they had not dated and had no opportunity for partner violence. Although 992 sample members participated in phase 21, 51 are not represented here because they either were interviewed in the field where the Conflict Tactics Scales could not be given or they refused the interview about partners.

When the Dunedin study members were followed up at age 21, they were found to be involved in several types of relationships. Some study members were married, but more were cohabiting without marriage, which has become a common practice for young adults in the 1990s. This offered an opportunity to report the first partner violence data for a representative sample of contemporary unmarried couples who were living together. Most study members were "going out" with someone: Some were in an exclusive relationship; others were "playing the field." About 8 percent had not gone out with anyone in the past 12 months and thus had no opportunity to become

Exhibit 4. Rates of mental illness among Dunedin perpetrators and victims of severe physical abuse



Rates of mental illness among female victims of severe physical abuse, female nonvictims, male perpetrators of severe physical abuse, and male nonperpetrators. The rate for female perpetrators was virtually identical to the rate for female victims, and the rate for male victims was nearly identical to the rate for male perpetrators.

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involved in partner violence. Exhibit 3 shows the rates of violence for those who were involved in relationships. Given that 48 percent of cohabitating partners and 21 percent of those who were dating experienced partner violence, the colloquial expression "The marriage license is a hitting license" appears to be outdated; the Dunedin study shows that violence cuts across all types of relationships.

#### Is physical abuse strongly linked with mental disorders?<sup>10</sup>

In 1994, the American Psychiatric Association first recognized "physical abuse of an adult" as a "focus of clinical attention." An analysis was conducted to determine whether physical abuse was often "comorbid" with mental disorders among Dunedin study members. (Comorbidity means that a patient suffers from two or more disorders or problematic conditions at once.) Comorbidity between abuse and mental disorders was examined because studies of comorbidity among mental disorders have shown that coexistence of multiple psychiatric problems predicts more severe life impairment, longer duration of the problems, and poorer response to treatment.<sup>11</sup>

Sixty-five percent of Dunedin women who were victims of severe physical abuse<sup>12</sup> met criteria for one or more disorders listed in the Diagnostic and Statistical Manual of the American Psychiatric Association ("DSM-III-R"). Eighty-eight percent of Dunedin men who were perpetrators of severe physical abuse met DSM-III-R criteria (see exhibit 4). Abused Dunedin women were three times more likely to suffer a mental illness than nonabused women. The male perpetrators were 13 times more likely to be mentally ill than nonperpetrators. The types of mental illnesses among perpetrators varied; they included anxiety disorders, depression,

## **Risk Predictors From the Dunedin Study**

hen the study members were age 21, the Dunedin researchers examined 24 individual and family characteristics they had previously measured during the study members' childhood and hypothesized these characteristics would predict partner abuse. Early childhood characteristics were measured at study members' birth and at ages 3 and 5. Middle childhood characteristics were measured when study members were ages 7 and 9. Adolescent characteristics were measured when study members were age 15. In addition, study members' mothers answered questions about their own mental health when the members

were ages 7, 9, and 15. All of the measures were highly reliable. (Previous reports about research on each risk factor in the Dunedin study have been published and may be obtained from the researchers—see "Full Reports From the Dunedin Multidisciplinary Health and Development Study.")

There were six measures of **family socio**economic resources. *Social class* (the socioeconomic status of the parents' occupation on a six-point scale designed for New Zealand) was measured at sample members' birth and when they were ages 7/9<sup>\*</sup> and 15. *Family structure* measured at ages 9 and 15

# Correlations of physical abuse with selected childhood and adolescent characteristics (at age 21)

	Male Perpetrator	Male Victim	Female Perpetrator	Female Victim
Family Socioeconomic Resources				
Social class at birth	Y	Y	Ν	Ν
Social class at ages 7/9	Y	Y	Ν	Ν
Social class at age 15	Y	Ν	Ν	Ν
Born to unmarried mother	Ν	Ν	Ν	Ν
One parent absent at age 9	Y	ΥY	Ν	Ν
One parent absent at age 15	Y	Y	Y	Υ
Composite, with other risk factors controlled	Ν	Ν	Ν	Ν
Family Relations				
Negative mother-child interaction at age 3	Ν	Ν	Ν	Y
Family conflict at ages 7/9	Ν	Y	Y	Y
Family conflict at age 15	Ν	Ν	Y	Y
Harsh discipline at ages 7/9	Ν	Ν	Y	Y
Parent-child attachment at age 15	Y	Y	YY	Υ
Mother's mental health problems at ages 7/9	Ν	Y	Ν	Ν
Mother's mental health problems at age 15	Ν	Y	Ν	Ν
Composite, with other risk factors controlled	Ν	Ν	Y	N
Educational Achievements				
Stanford-Binet IQ at age 5	Ν	Ν	Ν	Y
WISC-R IQ at ages 7/9	Y	Y	Ν	Ν
Reading achievement at ages 7/9	Y	Y	Ν	Ν
Reading achievement at age 15	Y	Y	Ν	Ν
Age at leaving secondary school	YY	ΥY	Y	Y
Composite, with other risk factors controlled	Y	Ν	Ν	Ν
Problem Behaviors				
Difficult temperament at ages 3/5	Ν	Ν	Ν	Y
Conduct problems at ages 7/9 (teacher-parent)	Y	Ν	Ν	Ν
Conduct problems at age 15 (parent)	Y	Y	Y	Y
Aggressive delinquency at age 15 (self)	YY	ΥY	ΥY	ΥY
Juvenile police contact	Y	Ν	Y	ΥY
Substance abuse at age 15 (self)	YY	ΥY	ΥY	ΥY
Composite, with other risk factors controlled	Y	ΥY	YY	ΥY
Y = yes, a significant risk factor $YY = significant$ and strong risk factor				l = no risk

represents whether or not the sample member lived with both biological parents. *Family structure* measured at birth (taken from hospital records) indicates whether or not the child was born to a married mother.

There were seven measures of family relations. Negative mother-child interaction was assessed when the sample members were age 3. An observer assessed eight aspects of parenting; for example, if the mother's expression was consistently harsh, if her evaluation of the child was constantly critical or derogatory, or if she was rough or inconsiderate when handling the child. Family conflict was measured at ages 7/9 and 15 with the conflict subscale of the Moos Family Relations Index, completed by mothers of the sample members. The conflict subscale contains items such as: "In our family, we believe you don't ever get anywhere by raising your voice," and "Family members sometimes hit each other." A measure of harsh discipline at ages 7/9 was constructed from a checklist of disciplinary behaviors. Parents were asked to indicate if they engaged in 10 behaviors, e.g., "smack your child or hit him/ her with something," "try to frighten your child with someone like his/her father or a policeman," and "threaten to smack or to deprive your child of something." Parentchild attachment was measured when the sample members were age 15 with a 12item self-report measure from the Inventory of Parent Attachment. The items measure the adolescents' trust, communication, and alienation in their relationships with their parents. Mother's mental health problems were measured with a 24-item questionnaire that sampled a variety of common symptoms of emotional disturbances that was completed by sample members' mothers when the sample members were ages 7/9 and 15.

There were five measures of **educational achievements.** At age 5, *intelligence quo-*



#### **Risk Predictors From the Dunedin Study (continued)**

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*tient* (IQ) was assessed with the Stanford-Binet Intelligence Scale. IQ was measured again when the sample members were ages 7/9 with the Wechsler Intelligence Scale for Children-Revised. *Reading achievement* was measured when the sample members were ages 7/9 and 15 by the Burt Word Reading Test, normed for New Zealand children. *Age at leaving secondary school* was the age at which the study member left high school. (Education was compulsory until age 15 in New Zealand.)

There were six measures of **problem behaviors.** *Difficult temperament* was assessed when the sample members were ages 3/5 by psychological examiners who observed each child in a testing session involving cognitive and motor tasks. Following the testing session, examiners rated each child's behaviors. Based on the ratings, the researchers identified a dimension that reflected individual differences in reactions to stress and challenge, impulse control, and

alcohol and drug dependence, antisocial personality disorder, and schizophrenia.

Research shows that emergency room and general practice medical professionals need to be alert to partner violence. In addition, the Dunedin study findings reveal that more than one-third of candidates for treatment from mental health professionals are involved in domestic violence. Whereas emergency room and general practice physicians usually encounter victims, and only after an injury, mental health practitioners have the opportunity to identify and help victims before they are injured if questions about domestic violence are made a routine part of intake assessment. Moreover, mental health practitioners encounter not only women victims but large numbers of men who are at risk of being perpetrators. If practitioners were trained to screen for partner violence risk, the mental health system might

the ability to persist in problem solving. Children who scored high on this factor were emotionally unstable, irritable, negative, rough, inattentive, and had difficulty concentrating. The measure of conduct problems at ages 7/9 was based on combined parent and teacher ratings of items from the "antisocial" and "hyperactivity" subscales of the Rutter Child Scales. When sample members were age 15, conduct problems were measured with the Conduct Disorder subscale of the Quay and Peterson Revised Behavior Problem Checklist, which was completed by their parents. The items in this subscale reflect aggressive and interpersonally alienated behaviors such as bullying, guarreling, disobeying, and teasing others. Aggressive delinquency was measured when the sample members were age 15 with study members' self-reports of aggressive behavior that were obtained in private, individual, structured interviews developed for use in New Zealand. Items for the scale of aggressive behaviors inquired whether the subject ever had set fire to a

offer prevention as an alternative to prosecution.

## What are the risk factors in childhood and adolescence for partner abuse?<sup>13</sup>

The unique prospective longitudinal database resources of the Dunedin study provided the necessary means to conduct one of the few prospective studies of risk factors for partner abuse. Risk factors were tested to determine whether they were present before Dunedin participants' abusive behavior began. Previous research on risk factors suffered from two flaws. First, childhood factors have been measured primarily by perpetrators' recall of past family life, which has proved faulty. Adults involved in violence often "remember" their childhoods in ways that provide self-justification for their

building, hit a parent, fought in the street or other public place, struggled to escape from a policeman, used force or threats to extort money, or used a weapon in a fight. Juvenile police contact from when sample members were between ages 10 and 17 was based on records of police contacts that were obtained from police departments throughout New Zealand. The number of police contacts in this sample ranged from zero to 18. Substance abuse was measured when the sample members were age 15 with a "variety" score based on self-reports of buying alcohol while underage, being drunk in a public place, smoking marijuana, sniffing glue, and using other drugs.

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\* When the same measurement instrument was used repeatedly at adjacent assessment ages, the researchers were able to combine the two scores to produce a more reliable and accurate composite measure. In this sidebar, the use of such composite measures is denoted by a "/" (e.g., 7/9 indicates that two equivalent measures of study members or their families from assessment ages 7 and 9 were combined).

current behavior. Second, many previous studies have focused on only one risk factor—childhood exposure to parents' violence—while neglecting other important influences on youngsters' development, such as poverty or schooling.

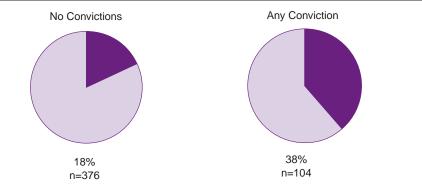
In the early years of the Dunedin study, risk factors were measured long before either the study families or the researchers knew that partner violence would be examined, thereby avoiding any potential bias. The risk measures were grouped into four broad domains: family socioeconomic resources, family relations, educational achievement, and problem behaviors. (See "Risk Predictors From the Dunedin Study.")

Measures were used that had been taken during three developmental periods: early childhood (ages 3–5), middle childhood (ages 7–9), and adolescence

(age 15).<sup>14</sup> The pattern of results shows that male perpetrators' backgrounds include primarily poverty and poor school achievement. In contrast, female perpetrators' backgrounds include primarily disturbed family relationships, especially weak attachment, harsh discipline, and conflict between parents. Poverty and school failure were less important. Perpetrators of both sexes have a long history of aggressive behavior problems. For male and female perpetrators, the strongest risk factor is a record of physically aggressive delinquent offending before age 15. However, physically aggressive delinquent offending before age 15 is also the most significant risk factor for victims.

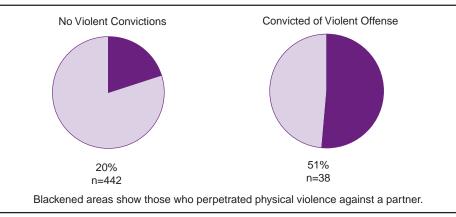
In terms of prevention policy, the finding that partner abuse in adulthood is predictable from certain characteristics during-and even before-adolescence suggests that primary prevention of partner violence should begin as early as youngsters develop an interest in the opposite sex. One clear implication is that children in secondary school (ages 12 to 17) are not too young to learn healthier ways to handle conflicts with partners. Violence education may become as important as sex education for developing healthy relationships. In addition, experiences in different settings (e.g., at home and at school) and in different behavioral domains (e.g., academic achievement and behavior problems)

# Exhibit 5. Rates of partner violence perpetrated by Dunedin males convicted of any crime



Blackened areas show those who perpetrated physical violence against a partner.

# Exhibit 6. Rates of partner violence perpetrated by Dunedin males convicted of a violent crime



were found to pose risks for partner abuse. This underscores the importance of prevention programs that involve *both* parents and schools.

#### Is partner violence closely linked with other kinds of violence?<sup>15</sup>

Interestingly, each of the risk factors found for partner violence also posed a risk for other kinds of criminal offending by Dunedin study members such as drug, property, and theft offenses and violence against nonpartners. In fact, some researchers and law enforcement personnel question whether there are any risk factors specific to partner violence, as opposed to criminal offending in general. This issue should be resolved before it becomes clear whether a unique theory for partner violence and specialized interventions for its perpetrators are needed.

In the absence of a knowledge base, popular opinion holds that batterers pose less danger to the general public than other violent offenders because their violence stays within the family.<sup>16</sup> As such, law enforcement resource allocation and judicial decisionmaking reflect competition between ensuring the public's safety from street criminals and ensuring the private safety of battered wives. By studying associations between partner violence and violence against other victims who are not intimate partners, the researchers hope to inform policymakers about whether they should think of most partner violence as a special problem arising from the intimate relationship between two adults or as part of a pattern of repeated aggression toward others by the perpetrator. If the latter is true, targeting batterers for priority intervention could improve both spouse safety and public safety at once.



The Dunedin study research points to strong links between violence against a partner and a history of violence against other victims. As noted earlier in "What are the risk factors in childhood and adolescence for partner abuse?" the strongest predictor of partner violence among the many risk factors in childhood and adolescence in the Dunedin study database is a history of aggressive delinquency before age 15. (Aggressive delinquency was measured by the study members' self-reports of assaults at age 15, their parents' reports of their aggressive behavior problems at age 15, and the presence of "333" incident formscontaining charges of assaults by the study member-in the Youth Aid offices of the New Zealand Police).

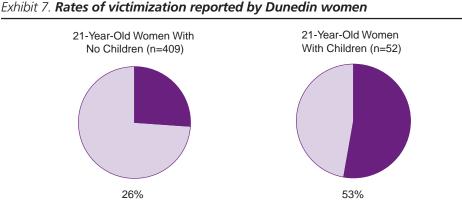
Researchers checked whether Dunedin study members who were already known to the courts by age 21 were also likely to be perpetrators of partner violence. A search of the New Zealand Police computer files (with each study member's written permission) revealed that by age 21, 141 study members (14 percent) had been convicted of one or more criminal offenses. Among those convicted, 60 percent were repeat offenders. Although most of the convictions were for property crimes, 38 men and 8 women had 113 violence convictions for inciting violence, manual assault, assault with a deadly weapon, rape, robbery, homicide, and threatening with an offensive weapon. Partner violence scores of convicted male study members were compared with those of male study members who were not known to the courts. Exhibits 5 and 6 show that the police and courts already know many of the perpetrators of partner violence because they have been successfully prosecuted for other crimes.

#### Gender and partner violence: Do men and women hit for the same reasons?<sup>17</sup>

As shown in exhibit 2, women report perpetrating partner violence more frequently than men. This was true in the Dunedin study and in both the National Family Violence and National Youth surveys. Exhibit 2 also shows that male victims' reports corroborate this finding.

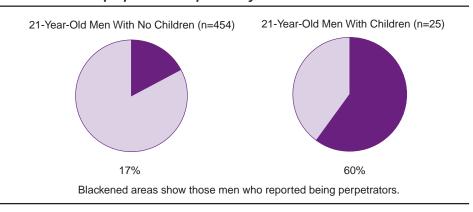
Such findings about gender similarities in partner abuse have been contested. However, one of the first lessons learned in the Dunedin study is that there are no tidy and distinct groups of victims or perpetrators. Interviewers first asked study members, "Have you done any of these things to your partner?" Next they asked, "Has your partner done any of them to you?" When the data were analyzed, victimized women were 10 times more likely to be perpetrators than other women and male perpetrators also were 19 times more likely to be victims than other men. The data do not include who started each incident or if some of the acts were in self-defense, but it is clear that in most cases of partner violence in this age group, the parties are involved in mutual violence.

Other studies have shown that although partner violence behaviors are similar across genders, consequences differ. Women are much more likely to be physically injured by men than men are to be physically harmed by women.<sup>18</sup> The Dunedin study findings show that



Blackened areas represent women experiencing physical abuse by their partners.

#### Exhibit 8. Rates of perpetration reported by Dunedin men



although women report perpetrating physical violence, the personal characteristics of male perpetrators are much more deviant. Dunedin study male perpetrators of severe physical violence had extreme levels of polydrug abuse, antisocial personality disorder, dropping out of school, chronic unemployment, poor social support, and violence against victims outside the family. Among men who severely assaulted their partners, 72 percent had used two or more illicit drugs, 56 percent had left secondary school early without any formal certificates or qualifications, 51 percent had assaulted someone else in addition to their partner in the past year, and on average they had been unemployed for 20 months since leaving school. These extreme social and personal problems were not found for Dunedin study female perpetrators.

The Dunedin study findings suggest that although women do report assaulting their

partners, women's behavior is generally not accompanied by multiple problems in other areas. The researchers speculate that knowledge about the consequences of partner violence might explain this difference. Most men know that if they hit their partner, she is likely to be injured, the police may be called, and the police are now likely to act swiftly against male perpetrators. As a result, young men whose selfcontrol is compromised by enormous social stress, mental illness, or intoxication will be most likely to risk the consequences of hitting their partner. However, women know that they are unlikely to injure their partner, he is unlikely to call for help, and the police are unlikely to intervene. Thus, there is little to deter an angry young woman from hitting her partner. As such, women of all sorts may be apt to hit their partners, not just women whose judgment is clouded by stress, mental illness, or intoxication. Further research should be conducted to confirm this possible explanation.

#### Are young parents more likely to be involved in a violent relationship than young adults who have not had children?<sup>19</sup>

One of the most worrisome findings from the Dunedin study is that young adults most likely to be involved in partner violence are also most likely to be parents. Ten percent, or 52, of the study women had a baby by age 21. Five percent, or 25, of the study men were fathers. Of those who were parents, 13 percent, or 6, of the women and 7 percent, or 2, of the men were married, although not necessarily to the person who was the mother or father of their child(ren). Exhibit 7 shows that young mothers were twice as likely as other young women to be physically abused by their male partners. Exhibit 8 indicates that those who were fathers were more than three times as likely as those who were not fathers to report being perpetrators of abuse. All of the study women

## Full Reports From the Dunedin Multidisciplinary Health and Development Study

etailed reports may be obtained from the authors at the following address: Professor Terrie E. Moffitt, Institute of Psychiatry, Social, Genetic and Developmental Psychiatry Research Centre, 111 Denmark Hill, London SE5 8AF England. Please cite the order letters/ numbers in bold below.

Bardone, A., T.E. Moffitt, A. Caspi, N. Dickson, and P.A. Silva, "Adult Mental Health and Social Outcomes of Adolescent Girls With Depression and Conduct Disorder," *Development & Psychopathology* 8 (1996): 811–819. (J81)

Danielson, K.K., T.E. Moffitt, A. Caspi, and P.A. Silva, "Comorbidity Between Abuse of an Adult and DSM–III–R Mental Disorders: Evidence From an Epidemiological Study," American Journal of Psychiatry 155 (1998): 131–133. (J94)

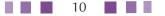
Krueger, R.F., T.E. Moffitt, A. Caspi, and A. Bleske, "Assortative Mating for Antisocial Behavior: Developmental and Methodological Implications," *Behavior Genetics* (1998): 173–186. (J99)

Magdol, L., T.E. Moffitt, A. Caspi, D. Newman, J. Fagan, and P.A. Silva, "Gender Differences in Partner Violence in a Birth Cohort of 21-Year-Olds: Bridging the Gap Between Clinical and Epidemiological Approaches," *Journal of Clinical & Consulting Psychology* 65 (1997): 68–78. **(J83)** 

Magdol, L., T.E. Moffitt, A. Caspi, and P.A. Silva, "Developmental Antecedents of Partner Violence: A Prospective Longitudinal Study," *Journal of Abnormal Psychology* 107 (1998): 375–389. **(J105)**  Magdol, L., T.E. Moffitt, A. Caspi, and P.A. Silva, "Hitting Without a License: Testing Explanations for Differences in Partner Abuse Between Young Adult Daters and Cohabitors," *Journal of Marriage and the Family* 60 (1998): 41–55. **(J96)** 

Moffitt, T.E., and A. Caspi, "Annotation: Implications of Violence Between Intimate Partners for Child Psychologists and Psychiatrists," *Journal of Child Psychology and Psychiatry* 39 (1998): 137–144. (J93)

Moffitt, T.E., A. Caspi, R. Krueger, L. Magdol, G. Margolin, P.A. Silva, and R. Sydney, "Do Partners Agree About Abuse in Their Relationship? A Psychometric Evaluation of Interpartner Agreement," *Psychological Assessment* 9 (1997): 47–56. **(J86)** 



were rearing their children. A few of the men were rearing their children, and other abusive study men were living with a new partner and her children. Presumably some of those children have been exposed to violence between their parent and partner. This finding underscores the importance of services for high-risk adolescents that integrate issues of family planning, parenting, and partner violence to break the cycle of violence transmission to the next generation.

#### Conclusion

The Dunedin study findings to date have demonstrated three aspects of violence between partners. First, young people who become involved in a violent relationship tend to come from backgrounds that include family adversity, dropping out of school, and violent juvenile crime. Second, the most violent relationships are found among young parents of small children, especially parents who are unmarried. Third, partner violence is complicated by other problem behaviors, especially long-term unemployment, mental illness, drug abuse, and violence against nonfamily victims.

These findings demonstrate a need for three intervention approaches. First, early interventions with teenagers are needed to teach them not to use violence against partners. Second, interventions with young parents are needed to reduce their stress and protect their small children from exposure to violence at home. Third, perpetrators of partner violence tend to be mentally ill and commit other violent crimes as well, suggesting a need for coordination among police, judicial, and psychiatric interventions.

These research findings have the potential to inform the work of policymakers and practitioners. Policymaking that deters batterers through arrest, prosecution, or therapy requires sound knowledge about how and why individuals become perpetrators and victims. In the Dunedin research, the goal was to improve prediction, understanding, and treatment of partner violence by continuing to study the developmental experiences, personal characteristics, and situational circumstances that lead individuals into partner violence.

#### Notes

1. Greenfeld, L.A., M.R. Rand, D. Craven, P.A. Klaus, C.A. Perkins, C. Ringel, G. Warchol, C. Maston, and J.A. Fox, *Violence by Intimates: Analysis of Data on Crimes by Current or Former Spouses, Boyfriends, and Girlfriends,* Bureau of Justice Statistics Factbook, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, March 1998, NCJ 167237.

2. The study's history is detailed in Silva, P.A., and W.R. Stanton, eds., *From Child to Adult: The Dunedin Multidisciplinary Health and Development Study*, Auckland, New Zealand: Oxford University Press, 1996.

3. Straus, M.A., "Measuring Intrafamily Conflict and Violence: The Conflict Tactics Scales," *Journal of Marriage and the Family* 41 (1979): 75–88.

4. See Straus, M.A., and R.J. Gelles, *Physical Violence in American Families*, chap. 4, London, England: Transaction Publishers, 1992, for a discussion of the methodological issues that were initially raised by the Conflict Tactics Scales.

5. For the full report, see Moffitt, T.E., A. Caspi, R. Krueger, L. Magdol, G. Margolin, P.A. Silva, and R. Sydney, "Do Partners Agree About Abuse in Their Relationship? A Psychometric Evaluation of Interpartner Agreement," *Psychological Assessment* 9 (1997): 47–56.

6. For everything that is measured, there is some slippage between the score the measurement instrument records and the true score. If there were a perfect measurement instrument, all flawed instruments could be tossed out. But there is no perfect instrument, so the best strategy is to use several different measures of the same data and then triangulate among all their results to try to find the true score. Statistical theory assumes that although every measure is flawed, they are each flawed in a different, random way. One score will be too high, another will be too low, and the true score will lie somewhere in the middle.

The Dunedin study used a statistical procedure called "confirmatory factor analysis" to find the true score for perpetrators' self-reports of their own partner violence. Thirteen questions about partner violence were asked, e.g., "Have you hit your partner?" and "Have you used a knife or gun on your partner?" Each question in the interview was assumed to have "random flaws" because the respondent's attention might wander, they might mis-hear the interviewer, misunderstand a word, forget something, circle true when they meant to circle false, etc. These random flaws, however, are distinct from deliberate bias—which is not random—such as lying to conceal the violence or exaggerating violence to get attention.

The confirmatory factor analysis program essentially triangulates among the different answers to the 13 questions to come up with a best estimate of the perpetrator's "true score." The same program was then run on the victim's reports about the perpetrator's behavior to get a "true score" for the perpetrator's abuse from the victim's perspective. Finally, the correlation between the two resulting "true scores" was calculated. Before a confirmatory factor analysis was used to remove random measurement errors from the perpetrators' and victims' scores, they were correlated at 0.59. After the scores that had been cleaned of random errors were used, they were correlated at 0.83. This difference shows that much of the "disagreement" between partners that researchers worried about is understandable random error. It does not indicate that partners are deliberately trying to misrepresent their violence to researchers. They actually agree very well, if reasonable human error is allowed for. This and the way the program works are explained in detail in Moffitt, T.E., A. Caspi, R. Krueger, L. Magdol, G. Margolin, P.A. Silva, and R. Sydney, "Do Partners Agree About Abuse in Their Relationship?

7. For the full report, see Magdol, L., T.E. Moffitt, A. Caspi, D. Newman, J. Fagan, and P.A. Silva, "Gender Differences in Partner Violence in a Birth Cohort of 21-Year-Olds: Bridging the Gap Between Clinical and Epidemiological Approaches," *Journal of Clinical & Consulting Psychology* 65 (1997): 68–78.

8. Fagan, J., and A. Browne, "Violence Between Spouses and Intimates," in *Understanding and Preventing Violence*, vol. 3, ed. A.J. Reiss and J.A. Roth, Washington, DC: National Academy Press, 1994, 115–292.

9. Elliott, D.S., D. Huizinga, and B.J. Morse, *The Dynamics of Delinquent Behavior: A National Survey Progress Report*, Boulder, CO: Institute of Behavioral Sciences, University of Colorado, 1985.

For the full report, see Danielson, K.K.,
T.E. Moffitt, A. Caspi, and P.A. Silva,
"Comorbidity Between Abuse of an Adult and

DSM-III-R Mental Disorders: Evidence From an Epidemiological Study," *American Journal* of Psychiatry 155 (1998): 131–133.

11. Newman, D., Moffitt, T.E., Caspi, A., and Silva, P.A., "Comorbid Mental Disorders: Implications for Clinical Treatment and Sample Selection," *Journal of Abnormal Psychology* 107 (1998): 305–311.

12. Severe physical abuse was defined as the CTS items likely to cause injury: kicking, biting, hitting with a fist, hitting with an object, beating up, choking, strangling, threatening with a knife or gun, or using a knife or gun.

13. For the full report, see Magdol, L., T.E. Moffitt, A. Caspi, and P.A. Silva, "Developmental Antecedents of Partner Violence: A Prospective Longitudinal Study," *Journal of Abnormal Psychology* 107 (1998): 375–389.

14. Bivariate and multivariate regression were used to test which risk factors predicted selfreports of partner abuse, and for study members whose partner participated, the test was replicated by predicting the partner's reports of abuse.

15. For the full report, see Moffitt, T.E., A. Caspi, and P.A. Silva, in preparation.

16. Fagan, J., and A. Browne, "Violence Between Spouses and Intimates."

17. For the full report, see Magdol, L., T.E. Moffitt, A. Caspi, D. Newman, J. Fagan, and P.A. Silva, "Gender Differences in Partner Violence in a Birth Cohort of 21-Year-Olds."

18. Fagan, J., and A. Browne, "Violence Between Spouses and Intimates."

19. For the full report, see Bardone, A., T.E. Moffitt, A. Caspi, N. Dickson, and P.A. Silva, "Adult Mental Health and Social Outcomes of Adolescent Girls With Depression and Conduct Disorder," *Development & Psychopathology* 8 (1996): 811–819. Terrie E. Moffitt, Ph.D., is a professor in the department of psychology at the University of Wisconsin-Madison and in the Social, Genetic and Developmental Psychiatry Research Centre, Institute of Psychiatry, at the University of London; Avshalom Caspi, Ph.D., is a professor in the department of psychology at the University of Wisconsin-Madison and in the Social, Genetic and Developmental Psychiatry Research Centre, Institute of Psychiatry, at the University of London.

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