EXHIBIT 1

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NAVAJO NATION DISTRICT COURT
DISTRICT OF SHIPROCK, NEW MEXICO

John Doe BF, Plaintiff, vs. DIOCESE OF GALLUP, FR. CHUCK CICHANOWICZ, a/k/a FR. CHARLES CICHANOWICZ, FRANCISCAN FRIARS PROVINCE OF ST. JOHN THE BAPTIST a/k/a THE PROVINCE OF ST. JOHN THE BAPTIST OF THE ORDER OF FRIARS MINOR, INC. a/k/a THE FRANCISCAN MISSIONARY UNION OF THE PROVINCE OF ST. JOHN THE BAPTIST, FRANCISCAN FRIARS PROVINCE OF OUR LADY OF GUADALUPE a/k/a THE PROVINCE OF OUR LADY OF GUADALUPE OF THE ORDER OF FRIARS MINOR, INC. Defendants.	Case No. SR-CV-369-07-CV SECOND AMENDED COMPLAINT FOR PERSONAL INJURY

Plaintiff, through counsel, and based upon information and belief available to Plaintiff at

the time of the filing of this Complaint, brings this Complaint under Navajo Law for damages resulting

from injuries suffered by John Doe FB as a result of Defendants' negligence and other misconduct described herein.

JURISDICTION AND VENUE

1. At the time of the events described in this Complaint, all parties resided or did business on the Navajo Nation and the acts described herein occurred exclusively on Navajo tribal trust land within the Navajo Nation.

PARTIES

2. Plaintiff John Doe BF is an adult male who is a resident of the State of Oregon. Plaintiff was a minor at the time of the sexual abuse alleged herein and at that time resided upon the Navajo Nation Reservation in Shiprock, New Mexico. The name used by Plaintiff in this Complaint is not the real name of Plaintiff, but is a fictitious name used to protect the privacy of Plaintiff, a victim of childhood sexual abuse.

3. The Diocese of Gallup ("Defendant Diocese") is a corporation authorized to conduct business and conducting business upon the Navajo Nation Reservation, with its principal place of business in Gallup, New Mexico. Defendant Diocese has responsibility for Roman Catholic Church operations on the Navajo Nation Reservation. Defendant Diocese is the diocese in which the sexual abuse occurred.

4. Father Chuck Cichanowicz a/k/a Fr. Charles Cichanowicz (the "Priest") was at all times relevant an ordained priest in the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order assigned to Christ the King parish in Shiprock, New Mexico and on

the Navajo Nation Reservation. During the dates of abuse, the Perpetrator was a practicing priest assigned to Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order and was under the direct supervision, employ and control of Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order.

5. The Franciscan Friars Province of St. John the Baptist a/k/a the Province of St. John the Baptist Of the Order of Friars Minora/k/a the Franciscan Missionary Union of the Province of St. John the Baptist (the "Baptist Order") is a non-profit religious order of the Roman Catholic Church with its principal place of business located at 1615 Vine St., Cincinnati, Ohio 45202-6400. From 1924 through 1985, Defendant Order owned and operated Christ the King Parish in Shiprock, New Mexico. From 1924 through 1985, Defendant Order had responsibility for providing priests to Christ the King Parish, including Defendant Priest.

6. Franciscan Friars Province of Our Lady of Guadalupe a/k/a the Province of Our Lady of Guadalupe of the Order of Friars Minor, Inc. (the "Guadalupe Order"). Upon information and belief, in 1985, the Franciscan Friars Province of Our Lady of Guadalupe was created and took over the ownership and operation of Christ the King Parish and the responsibility for providing priests to Christ the King Parish, including Defendant Priest..

BACKGROUND FACTS APPLICABLE TO ALL COUNTS

7. At all times material hereto, the Defendant Priest was under the direct supervision, employ and control of the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order. All acts of sexual abuse alleged herein took place during functions in which the Defendant Priest had custody or control of the Plaintiffs in his role as a priest and authority figure.

8. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order provided training to Defendant Priest on how to perform the specific positions of a priest and a pastor. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order hired, supervised and paid assistants to Defendant Priest. At all times, Defendant Priest acted upon the authority of and at the request and/or permission of the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order.

9. Defendant Priest performed much of his work on the premises owned by Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order which is the location of the sexual abuse described herein.

10. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order furnished tools and materials to aid and abet Defendant's conduct as alleged hereinafter.

11. At all times relevant, Christ the King Church was under the direct supervision, employ and control of Defendants Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order.

12. Defendant Priest's conduct as alleged herein was undertaken while in the course and scope of his employment with Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order.

13. At all times relevant to this lawsuit, the Defendant Priest was an agent, servant and/or employee of the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, and the Defendant Priest was acting within the course and scope of his authority as an agent, servant and/or employee of the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order when he committed the sexual abuse described herein.

Defendants, and each of them, are individuals, corporations, partnerships and other entities which engaged in, joined in and conspired with the other wrongdoers in carrying out the tortuous and unlawful activities described in this Complaint, and Defendants, and each of them, ratified the acts of the other Defendants as described in this Complaint.

14. In approximately 1984 or 1985, when Plaintiff was 14 and/or 15 years old, the Defendant Priest sexually abused Plaintiff two times on the Navajo Nation Reservation. Prior to sexually abusing the Plaintiff, the Defendant Priest provided alcohol to Plaintiff and caused Plaintiff to be intoxicated. After the Defendant Priest sexually abused the Plaintiff, the Defendant Priest told Plaintiff to never tell anyone what had happened and the Defendant Priest threatened Plaintiff with exposure if Plaintiff told anyone about the sexual abuse.

15. The sexual abuse and exploitation of Plaintiff and the circumstances under which it occurred caused Plaintiff to develop various psychological coping mechanisms which prevented Plaintiff from taking legal action until May 2007.

16. Plaintiff did not discover that he had been injured by the sexual abuse described herein until May 2007.

17. The physical and psychological injuries to Plaintiff caused by the Defendants did not manifest themselves in a physically or psychologically objective manner and were not ascertainable to Plaintiff until May 2007.

18. Due to the nature of the injuries suffered by Plaintiff, it was not possible for Plaintiff to connect the symptoms and injuries to the acts of sexual abuse and the negligence of the Defendants until May 2007.

19. An objective person in the Plaintiff's position would not have connected the

symptoms and injuries to the acts of sexual abuse and the negligence of the defendants until May 2007.

20. All applicable statutes of limitations are tolled due to fraudulent concealment by the Defendants.

21. The Defendants are collaterally estopped from asserting the statute of limitations as a defense due to the Defendants' own conduct.

22. As a direct result of the wrongful conduct alleged herein, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiffs' daily activities and obtaining the full enjoyment of life; has sustained and continues to sustain loss of earnings and earning capacity; and/or has incurred and continues to incur expenses for medical and psychological treatment, therapy, and counseling.

FIRST CAUSE OF ACTION

CHILDHOOD SEXUAL ABUSE

23. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

24. From approximately 1984 through approximately 1985, the Priest engaged in criminal sexual penetration and/or criminal sexual contact with the Plaintiff by Defendant Priest touching Plaintiff's penis with Defendant Priest's hand and mouth when Plaintiff was 14 or 15 years old in violation of Navajo Nation law.

25. The Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe

Order aided and encouraged Defendant Priest in the commission of the acts described by transferring Defendant Priest when he was caught sexually abusing children and continuing to assign Defendant Priest to parishes where Defendant Priest had unsupervised and unrestricted access to children, including Plaintiff. The Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order is directly liable for childhood sexual abuse as an accessory to the sexual abuse.

26. Said conduct was undertaken while the Priest was an employee and agent of Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, while in the course and scope of employment with Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order making the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order vicariously liable for the injuries caused by Defendant Priest under the doctrine of respondeat superior.

27. Upon information and belief, after learning of Defendant Priest's and other agents' wrongful conduct, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, by and through their agents, ratified the wrongful conduct described herein by failing to report it to law enforcement authorities, prospective parishioners, current parishioners, their families, victims, and the public.

28. Upon information and belief, prior to or during the abuse alleged above, Defendants knew, had reason to know, or were otherwise on notice of the unlawful sexual conduct by the Priest. Defendants failed to take reasonable steps and failed to implement reasonable safeguards to avoid acts of unlawful sexual conduct in the future by the Priest, including, but not limited to, preventing or avoiding placement of the Priest in functions or

environments in which contact with children was an inherent part of those functions or environments. Furthermore, at no time during the periods of time alleged did Defendants have in place a system or procedure to supervise and/or monitor employees, volunteers, representatives, or agents to insure that they did not molest or abuse minors in Defendants' care, including the Plaintiff.

29. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiffs' daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling.

SECOND CAUSE OF ACTION

ASSAULT AND BATTERY

30. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

31. From approximately 1984 through approximately 1985, the Priest engaged in unpermitted, harmful and offensive sexual conduct and contact upon the person of Plaintiff in violation of Navajo Nation law.

32. The Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order aided and encouraged Defendant Priest in the commission of the acts described by transferring Defendant Priest when he was caught sexually abusing children and continuing to

assign Defendant Priest to parishes where Defendant Priest had unsupervised and unrestricted access to children, including Plaintiff. The Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order are directly liable for assault and battery as an accessory to the assault and battery.

33. Said conduct was undertaken while the Priest was an employee and agent of Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, while in the course and scope of employment with Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order making the Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order vicariously liable for the injuries caused by Defendant priest under the doctrine of respondeat superior.

34. Upon information and belief, after learning of Defendant Priest's and other agents' wrongful conduct, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, by and through its agents, ratified the wrongful conduct described herein by failing to report it to law enforcement authorities, prospective parishioners, current parishioners, their families, victims, and the public.

35. Upon information and belief, prior to or during the abuse alleged above, Defendants knew, had reason to know, or were otherwise on notice of the unlawful sexual conduct by the Priest. Defendants failed to take reasonable steps and failed to implement reasonable safeguards to avoid acts of unlawful sexual conduct in the future by the Priest, including, but not limited to, preventing or avoiding placement of the Priest in functions or environments in which contact with children was an inherent part of those functions or environments. Furthermore, at no time during the periods of time alleged did Defendants have in

place a system or procedure to supervise and/or monitor employees, volunteers, representatives, or agents to insure that they did not molest or abuse minors in Defendants' care, including the Plaintiff.

36. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiffs' daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling.

THIRD CAUSE OF ACTION

NEGLIGENCE

37. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

38. Defendants had a duty to protect the minor Plaintiff when he was entrusted to their care by Plaintiff's parents. Plaintiff's care, welfare, and/or physical custody was temporarily entrusted to Defendants. Defendants voluntarily accepted the entrusted care of Plaintiff. As such, Defendants owed Plaintiff, a minor child, a special duty of care, in addition to a duty of ordinary care, and owed Plaintiff the higher duty of care that adults dealing with children owe to protect them from harm.

39. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, by and through its agents, servants and employees, knew or reasonably should have known of the

Priest's dangerous and exploitive propensities and/or that the Priest was an unfit agent. It was foreseeable that if Defendants did not adequately exercise or provide the duty of care owed to children in their care, including but not limited to Plaintiff, the children entrusted to Defendants' care would be vulnerable to sexual abuse by the Priest.

40. Defendants breached their duty of care to the minor Plaintiff by allowing the Priest to come into contact with the minor Plaintiff without supervision; by failing to adequately supervise the Priest who they permitted and enabled to have access to Plaintiff; by failing to investigate or otherwise confirm or deny such facts about the Priest; by failing to tell or concealing from Plaintiff, Plaintiff's parents, guardians, or law enforcement officials that the Priest was or may have been sexually abusing minors; by failing to tell or concealing from Plaintiff's parents, guardians, or law enforcement officials that Plaintiff was or may have been sexually abused after Defendants knew or had reason to know that the Priest may have sexually abused Plaintiff, thereby enabling Plaintiff to continue to be endangered and sexually abused, and/or creating the circumstance where Plaintiff was less likely to receive medical/mental health care and treatment, thus exacerbating the harm done to Plaintiff; and/or by holding out the Priest to the Plaintiff and his parents or guardians as being in good standing and trustworthy. Defendants cloaked within the facade of normalcy Defendants' and/or the Priest's contact and/or actions with the Plaintiff and/or with other minors who were victims of the Priest, and/or disguised the nature of the sexual abuse and contact.

41. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of

enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiff's daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling.

FOURTH CAUSE OF ACTION

NEGLIGENT SUPERVISION/FAILURE TO WARN

42. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

43. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order had a duty to provide reasonable supervision of the Priest; to use reasonable care in investigating the Priest; and to provide adequate warning to the Plaintiff, the Plaintiffs' family, minor students, and minor parishioners of the Priest's dangerous propensities and unfitness.

44. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order by and through their agents, servants and employees, knew or reasonably should have known of the Priest's dangerous and exploitive propensities and/or that the Priest was an unfit agent. Despite such knowledge, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order negligently failed to supervise the Priest in the position of trust and authority as a Roman Catholic Priest, religious instructors, counselors, school administrators, school teachers, surrogate parents, spiritual mentors, emotional mentors, and/or other authority figures, where he was able to commit the wrongful acts against the Plaintiff. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order failed to provide reasonable supervision of the Priest, failed to use reasonable care in investigating the Priest, and failed to provide adequate

warning to Plaintiff and Plaintiffs' family of the Priest's dangerous propensities and unfitness. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order further failed to take reasonable measures to prevent future sexual abuse.

45. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiff's daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling.

FIFTH CAUSE OF ACTION

NEGLIGENCE - PREMISES LIABILITY

46. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

47. At all times herein mentioned, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order were in possession of Christ the King Catholic Church (the "Church"), the property where the Plaintiff was groomed and sexually assaulted by the Priest, and had the right to manage, use and control the Church.

48. At all times herein mentioned, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order had actual or constructive notice that the Priest was a risk to commit sexual assaults against children, and that any child was at risk to be sexually assaulted by the Priest.

49. At all times herein mentioned, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order had a duty to protect any person who was invited upon the Church property from any known dangerous conditions, including the Priest.

50. It was foreseeable to Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order, that the Priest would sexually assault children if they allowed the Priest to have contact with children.

51. By allowing the Priest to teach, supervise, instruct, care for, and have custody of and/or contact with young children, and by failing to warn children and their families of the threat posed by the Priest, Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order breached their duty of care to all children, including Plaintiff.

52. Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order negligently created a dangerous condition and an unreasonable risk of harm to children by allowing the Priest have custody of and/or contact with young children at, among other locations, the Church.

53. The dangerous conditions created by Defendant Diocese, Defendant Baptist Order and/or Defendant Guadalupe Order were the proximate cause of Plaintiff's injuries and damages.

54. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiffs' daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning

capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling

SIXTH CAUSE OF ACTION

INTENTIONAL INFLICTION OF EMOTIONAL DISTRESS

55. Plaintiff incorporates all paragraphs of this Complaint as if fully set forth herein.

56. Defendants' conduct was extreme and outrageous and was intentional or done recklessly.

57. As a result of Defendants' conduct, Plaintiff has experienced and continues to experience severe emotional distress.

58. As a result of the above-described conduct, Plaintiff has suffered, and continues to suffer great pain of mind and body, shock, emotional distress, physical manifestations of emotional distress, embarrassment, loss of self-esteem, disgrace, humiliation, and loss of enjoyment of life; has suffered and continues to suffer spiritually; was prevented and will continue to be prevented from performing Plaintiffs' daily activities and obtaining the full enjoyment of life; has sustained and will continue to sustain loss of earnings and earning capacity; and/or has incurred and will continue to incur expenses for medical and psychological treatment, therapy, and counseling.

WHEREFORE, Plaintiff prays for damages; costs; interest; statutory/civil penalties according to law; and such other relief as the court deems appropriate and just.

Respectfully submitted:

By _____
William R. Keeler
108 E. Aztec Ave.

Gallup, NM 87301
Phone: (505) 722-5608
Fax: (505) 722-5614

I hereby certify that a true and
Correct copy of the foregoing pleading
Was hand-delivered to opposing counsel
Of record this 21st day of January, 2008.

William R. Keeler

EXHIBIT 2

NAVAJO NATION DISTRICT COURT
DISTRICT OF SHIPROCK, NEW MEXICO

John Doe BF ,

Plaintiff,

vs.

DIOCESE OF GALLUP,
FR. CHUCK CICHANOWICZ,
a/k/a FR. CHARLES CICHANOWICZ,
FRANCISCAN FRIARS PROVINCE OF ST. JOHN THE BAPTIST a/k/a THE PROVINCE OF ST. JOHN THE BAPTIST OF THE ORDER OF FRIARS MINOR, INC. a/k/a THE FRANCISCAN MISSIONARY UNION OF THE PROVINCE OF ST. JOHN THE BAPTIST, FRANCISCAN FRIARS PROVINCE OF OUR LADY OF GUADALUPE a/k/a THE PROVINCE OF OUR LADY OF GUADALUPE OF THE
ORDER OF FRIARS MINOR, INC.

Defendants.

Case No. SR-CV-369-07

AFFIDAVIT OF JOHN DOE BF

I, John Doe BF, hereby swear and depose as follows:

1. I am the Plaintiff in the above matter currently pending in the Navajo Nation District Court for the District of Shiprock.
2. In and around1984 or 1985, when the I was 14 to 15 years old, my parish priest, Fr. Cichanowicz, engaged me in sexual contact at Christ the King parish in Shiprock, New Mexico on the Navajo Nation reservation. At the time, Fr. Cichanowicz represented to me that these acts were just acts of friendship, guidance and normal pleasurable activities

between friends. The sexual acts did not appear injurious to me at the time, and at the time, the sexual acts performed felt pleasurable. I did not bleed as a result of the sexual contact. I did not bruise as a result of the sexual contact. In fact, I experienced sexual arousal by the acts. The entire time, Fr. Cichanowicz disguised the true nature of the sexual acts by representing to me that such sexual contact was normal, pleasurable and safe for a child. As a result, I went through life not understanding that I had even been injured by the sexual contact.

3. In May 2007, I realized that the sexual contact by Fr. Cichanowicz had injured me. Once I learned that I had been injured, I retained legal counsel and filed my lawsuit in Navajo Tribal Court.

Further Your Affiant Saith Not.

John Doe BF

Subscribed and sworn to before
me this 9th day of September, 2009.

Notary Public

OFFICIAL SEAL
CHERYL VONDER BURG
NOTARY PUBLIC-OREGON
COMMISSION NO. 432868
MY COMMISSION EXPIRES NOVEMBER 15, 2012

EXHIBIT 3

ORIGINAL ARTICLE

Association Between Self-reported Childhood Sexual Abuse and Adverse Psychosocial Outcomes

Results From a Twin Study

Elliot C. Nelson, MD; Andrew C. Heath, DPhil; Pamela A. F. Madden, PhD; M. Lynne Cooper, PhD; Stephen H. Dinwiddie, MD; Kathleen K. Bucholz, PhD; Anne Glowinski, MD; Tara McLaughlin, PhD; Michael P. Dunne, PhD; Dixie J. Statham, MCP; Nicholas G. Martin, PhD

Background: Increased risk for serious adverse outcomes has been associated with a history of childhood sexual abuse (CSA). Whether these risks are directly attributable to CSA rather than family background remains controversial.

Methods: Structured psychiatric telephone interviews were conducted from February 1996 to September 2000 with both members of 1991 same-sex pairs (1159 female and 832 male pairs) from a young adult Australian volunteer twin panel (mean [SD] age, 29.9 [2.5] years). A binary composite CSA variable was constructed from responses to 5 component questions. The association between CSA and adverse psychosocial outcomes was examined, controlling for family background.

Results: A history of CSA, reported by 16.7% of the women and 5.4% of the men, was more common among those reporting parental alcohol-related problems. Significantly increased risk was observed in women reporting a history of CSA for subsequently occurring major depression, suicide attempt, conduct disorder, alcohol dependence, nicotine dependence, social anxiety, rape after the age of 18 years, and divorce; most similar risks reached statistical significance in men. The greatest risks were associated with CSA involving intercourse. Childhood sexual abuse–negative twins (ie, those who denied having experienced CSA) from CSA-discordant pairs compared with other CSA-negative individuals had increased risk for many adverse outcomes suggesting correlated family background risk factors. Childhood sexual abuse–positive members (ie, those who reported having experienced CSA) of CSA-discordant pairs had significantly greater risk for all 8 examined adverse outcomes than their co-twins.

Conclusions: Self-reported CSA was associated with increased risk for adverse outcomes, controlling for family background. Family background risk factors also were associated with adverse outcome risk. Discordant pair analysis seems to provide an effective means of controlling for family background risk factors.

Arch Gen Psychiatry. 2002;59:139-145

From the Department of Psychiatry, Washington University School of Medicine, St Louis, Mo (Drs Nelson, Heath, Madden, Bucholz, Glowinski, and McLaughlin); Department of Psychology, University of Missouri–Columbia (Dr Cooper); Finch University of the Health Sciences–The Chicago Medical School, North Chicago, Ill (Dr Dinwiddie); Queensland University of Technology, Kelvin Grove, Australia (Dr Dunne); and Queensland Institute of Medical Research, Brisbane, Australia (Ms Statham and Dr Martin).

INCREASED RISK for serious negative outcomes has been reported for individuals with a history of childhood sexual abuse (CSA).[1-3] However, 2 major methodological issues, ascertainment or selection bias and confounding aspects of the family environment (eg, parental alcoholism), complicate interpretation of reported associations. Many investigations have relied on samples ascertained via agency involvement[1-4] (with CSA of greater severity occurring in more problematic family environments) or from clinical populations[1-3,5] (with higher rates of psychiatric illness and greater functional impairment). Still, general population studies have confirmed findings from these samples including increased risk for psychiatric illness (anxiety disorders,[6-11] depression,[6,7,9,10,12-14] alcohol abuse and/or dependence,[6,7,9-11,14,15] drug abuse and/or dependence,[6,7,10] eating disorders,[7,14,16] conduct disorder,[6-10] and borderline personality disorder[17]) and other adverse outcomes (suicide attempt,[6,14] current smoking,[18] sexual revictimization,[16,19,20] and relationship problems[12,14,16,20,21]) associated with self-reported CSA. Most studies have used retrospective designs (ethically mandated interventions preclude entirely naturalistic, prospective approaches), and are, therefore, subject to retrospective reporting bias. One study[6] that assessed psychiatric diagnoses prospectively during adolescence and CSA history (required to have occurred before the age of 16 years) retrospectively at the age of 18 years found increased rates of subsequently occurring psychiatric disorders, particularly when CSA involved intercourse.

Disentangling direct CSA effects from family background risk factors has proved

SUBJECTS AND METHODS

SUBJECTS

Subjects were members of the young adult cohort of the Australian Twin Register, a volunteer twin panel born between January 1, 1964, and December 31, 1971. Almost all were registered with the panel between 1980 and 1982 by their parents in response to approaches either through school systems or mass media appeals. All data reported herein are from a comprehensive assessment completed from February 1996 through September 2000 by trained lay interviewers. Verbal consent was first obtained from participants as per the protocol approved by the institutional review boards of Washington University, St Louis, Mo, and Queensland Institute of Medical Research, Brisbane, Australia. Of 4010 pairs that could be traced, interviews were completed with both members of 2765 pairs (69% pairwise response rate) and 1 member of an additional 735 pairs. The most common reasons for nonparticipation included refusal by twin, incapacitation and/or death, and lack of available contact information. Singletons, 661 opposite-sex pairs, and pairs in which either member gave no response to CSA items or responded problematically (see the "Assessment of CSA" section) were excluded from analyses reported herein. The current sample included the remaining monozygotic and dizygotic same-sex pairs (N=1991) in which both twins responded to at least 1 CSA component question. The sample was 58.2% female and had a mean (SD) age of 29.9 (2.5) years. Twins were asked for the "age at which they first lived apart" rather than whether they were raised together. The 19 individuals (0.5%) who reported having first lived apart before the age of 14 years included both members of only 3 pairs. Because of the ambiguous wording and the relatively few like-sex twin pairs involved, no twin pairs were excluded on this basis.

ASSESSMENT OF CSA

The current analyses focus on 5 questions about CSA (**Table 1**) from which, consistent with other reports,[19] a composite CSA variable was developed for use in further analyses. Data from 43 pairs were excluded from all analyses because at least 1 twin endorsed a CSA item (other than having been raped, see "Assessment of Outcome Measures and Covariates" section) but reported an onset age of 18 years or older for all endorsed CSA items. Data from 8 pairs, in which 9 of 13 CSA-positive individuals failed to provide an age of CSA occurrence, were retained in the analyses. Childhood sexual abuse was considered to have involved intercourse if respondents reported having been raped before the age of 18 years. Missing data on the occurrence of rape (n=4) or its onset and recency (n=4) in 8 CSA-positive subjects led to their exclusion from analyses incorporating either CSA involving intercourse or rape at the age of 18 years or older.

ASSESSMENT OF OUTCOME MEASURES AND COVARIATES

A standardized psychiatric diagnostic assessment, an adaptation of the Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA),[25] was administered via telephone. The interview enabled lifetime *DSM-IV*[26] diagnoses of major depressive disorder, conduct disorder, and alcohol and/

challenging since traditional case-control designs may inadequately control for family background overestimating the effects of CSA. Investigators[6,7,14,16,20,21] who have used statistical controls for family environment have reported that risks associated with CSA involving intercourse remained significant, but were much reduced in magnitude; results for less severe CSA were more unclear. A meta-analysis of studies in college student samples argued that CSA has limited importance beyond that attributable to the family environment.[22]

Investigators[23,24] have recently examined these issues in twin pairs, focusing on those discordant for CSA. Because twins share family background risk factors, within-pair differences in CSA-discordant pairs are assumed to have resulted either from CSA, or less plausibly, from risk factors correlated with CSA that are not shared by pair members. A mailed questionnaire survey assessed CSA history in Virginia female like-sex pairs[24] in whom psychopathologic status had been previously assessed. In discordant pairs, the twin reporting CSA involving intercourse had significantly increased risk of depression, alcohol dependence, and having 2 or more psychiatric disorders. An interview study[23] in the older Australian twin panel found a significant difference in adverse outcomes between CSA-positive (ie, those individuals who reported having experienced CSA) and CSA-negative (ie, those who denied having experienced CSA) co-twins only for suicidal ideation in male subjects. Because almost every odds ratio (OR) exceeded unity in both studies, the relatively few discordant pairs may have limited power to detect differences. Both samples[23,24] contained largely middle-aged respondents who were considerably removed from the age of CSA occurrence. The Australian study[23] determined CSA status from a single question about forced sexual activity.

The twin study design provides a means of distinguishing direct CSA effects from correlated family background effects. If CSA-correlated family background effects influence outcomes, then significantly higher risk would be expected for nonabused twins whose co-twins were abused than for members of pairs where neither was abused. The Australian study[23] found significantly increased risk for nonabused individuals with CSA-positive co-twins only for social phobia in women and conduct problems in men; confidence intervals (CIs) were broad because of the small sample sizes. The Virginia study[24] instead controlled for a limited range of parental variables concluding that family background risk factors play a relatively unimportant role in the observed associations.

Using data from a new, younger Australian twin sample, with a more thorough CSA assessment, we examined the extent to which CSA outcome associations are determined by correlated family background risk fac-

or nicotine dependence. Nondiagnostic sections included questions about marital history, contemplated or attempted suicide, traumatic events, parental alcohol-related problems, family background, and "social anxiety" (≥1 social fear causing impairment in functioning). Rape occurring at the age of 18 years or older was included as an outcome measure.[19] Divorce was examined conditional on having been married. Onset information was obtained for all outcomes other than divorce.

Maternal and paternal alcohol-related problems were assessed by a single question asked about each parent. Other measures of family background risk factors included as control variables in some analyses were (1) parental fighting, coded positive if parents "often" fought or argued in the twin's presence; (2) parental conflict, coded positive with report of "a lot" of conflict and tension between parents when the twins were between the ages of 6 and 13 years; (3) stepparent presence, that is, having been raised by a stepparent or adoptive parent during part of childhood; (4) neglect, a composite variable reflecting any positive response to "serious neglect," usually punished by either parent in a harsh nonphysical way, or necessary medical therapy not provided after injury; and (5) physical abuse, a composite variable reflecting any positive response to physical abuse, purposely hurt by an adult relative, or hit by either parent so hard that it "often" or "sometimes" hurt the next day. To minimize retrospective recall bias, covariates were coded to reflect a positive response by either twin.

DATA ANALYSIS

Primary statistical analyses were performed using SAS[27] and the Stata Statistics and Data Analysis Package (version 6.0).[28] An α level of .05 was required for statistical significance. The robust variance estimator option in Stata (Stata Corp, College Station, Tex) was used to obtain 95% CIs adjusted for the statistical nonindependence of twin-pair observations. Childhood sexual abuse risk associated with the respondents' responses to questions about their parents' problematic drinking was examined. To investigate possible reporting bias, a logistic regression was performed that examined CSA risk via the use of dummy variables coded to represent respondents' and co-twins' responses to parental drinking items.

Comparisons were made between the age at onset of outcomes and CSA occurrence. Survival analysis was performed separately by gender using Cox proportional hazards regression models to calculate hazard ratios representing the risks for adverse outcomes associated with prior occurrence of CSA. Logistic regression models that controlled for gender were fitted to test for indirect, family background contributions to the associations between outcome measures and the respondent's and co-twin's CSA histories. These analyses used dummy variables coded to represent whether respondents reported CSA involving intercourse and for CSA-negative respondents, whether the co-twin was CSA-positive. Members of pairs in which neither twin reported CSA served as the control group for these analyses. Analyses were then repeated including family background variables. Conditional logistic regression was used to determine the relative risks for adverse outcomes in the CSA-positive vs CSA-negative members of discordant twin pairs. Additional conditional logistic analyses were performed to determine whether estimates of intrapair risk differed by gender, zygosity (ie, monozygote or dizygote), or whether CSA involved intercourse.

tors vs direct CSA effects. The sample includes both female and male like-sex twin pairs; the examined negative outcomes were not limited to psychiatric disorders.

RESULTS

All putative CSA component items were more commonly endorsed by women (Table 1). Of 477 subjects who endorsed at least 1 of these items, 67 (14.0%) endorsed 1 item, 156 (32.7%) 2, 190 (39.8%) 3, 59 (12.4%) 4, and 5 (1.0%) 5; the mean (SD) was 2.54 (0.92) items. The Cronbach α coefficient values were 0.79 (overall and women) and 0.75 (men). Given very good internal consistency, the overlap of endorsement across these nonmutually exclusive items, and the report's focus on comparison of discordant pairs, a dichotomous composite variable representing endorsement of at least 1 of these items, henceforth referred to as CSA, was deemed appropriate for use in further analyses. Prevalence rates for CSA were 16.7% and 5.4% for women and men, respectively.

A history of CSA was reported by 31.9% of those reporting vs 11.1% of those denying maternal alcohol-related problems (OR, 3.75; 95% CI, 2.62-5.36) and 19.5% reporting vs 9.5% denying paternal alcohol-related problems (OR, 2.32; 95% CI, 1.85-2.91). When co-twins' reports were also incorporated into a logistic model, the ORs for self-reported CSA were as follows: for both twins reporting maternal alcohol-related problems, OR 3.09 (95% CI, 1.79-5.33); respondent only reported maternal alcohol-related problems, OR 4.50 (95% CI, 2.79-7.25); and co-twin only reported maternal alcohol-related problems, OR 2.08 (95% CI, 1.19-3.65). Similar values for paternal alcohol-related problems were as follows: both twins reporting 2.62 (95% CI, 2.00-3.45); respondent only, OR 1.87 (95% CI, 1.31-2.68); and co-twin only, OR 1.25 (95% CI, 0.83-1.87). The fact that CSA was more strongly correlated with the respondent's report of maternal alcohol-related problems (Wald $\chi^2_1=8.47$, $P=.004$) with a similar trend for paternal alcohol-related problems (Wald $\chi^2_1=3.59$, $P=.06$) indicates that a mild retrospective recall bias is contributing to the associations.

Childhood sexual abuse began early (mean [SD] age at onset 10.8 [4.06] years), generally preceding the onset of adverse outcomes. Childhood sexual abuse onset predated that of social fears by a mean of 1.7 years (95% CI, 0.3-3.1) and suicide attempt by a mean of 8.9 years (95% CI, 7.1-10.7). Childhood sexual abuse's onset similarly predated the onset of each of the following examined psychiatric disorders: conduct disorders by a mean of 1.7 years (95% CI, 0.4-3.0); major depressive disorder by a mean of 10.3 years (95% CI, 9.3-11.2); alcohol dependence by a mean of 10.5 years (95% CI, 9.4-11.6); and nicotine dependence by a mean of 10.6 years (95% CI, 9.7-11.4).

Table 1. Component Childhood Sexual Abuse (CSA) Questions, Endorsement Rates, and Risk by Gender*

CSA Questions	Women (n = 2318)	Men (n = 1664)	Risk by Gender, OR (95% CI)
Before age 18 years were you ever forced into sexual intercourse or any other form of sexual activity?†	14.2	3.9	4.10 (3.05-5.49)
Before you were 16 years old, were there any sexual contacts between you and anyone other than a family member who was 5 or more years older than you were? By sexual contact I mean their touching your sexual parts, you touching their sexual parts, or sexual intercourse.†	4.2	2.8	1.52 (1.03-2.23)
Before you were 16 years old, were there any sexual contacts between you and any family members, like a parent or stepparent, grandparent, uncle, aunt, brother or sister, or cousin? By sexual contact I mean their touching your sexual parts, you touching their sexual parts, or sexual intercourse.‡	6.8	0.9	7.94 (4.34-14.53)
How about event 5 [You were raped (Someone had sexual intercourse with you when you did not want to, by threatening you or using some degree of force.)]?§‖	5.6	1.3	4.63 (2.88-7.42)
Apart from event 5 did event 6 [You were sexually molested (someone touched or felt your genitals when you did not want them to)] ever happen to you?‖	12.5	4.0	3.45 (2.54-4.67)
Composite CSA variable¶	16.7	5.4	3.51 (2.70-4.55)

*All values are given as percentages unless otherwise indicated. OR indicates odds ratio; CI, confidence interval.
†Coded positively in the present context where subjects responded to a follow-up question that contact was "ever forced."
‡Coded positively in this context where subjects responded to further questions that contact involved either an adult or the use of force by a child.
§Coded positively in this context when rape was reported to have occurred before the age of 18 years and included in analyses as CSA involving intercourse.
‖Description in parentheses not read by interviewer to protect confidentiality (appeared in list form in a booklet mailed before the interview to which interviewers directed respondents at the beginning of this section). Traumatic event questions were skipped when respondents had misplaced their booklets.
¶Binary variable with the presence of any positively coded above item defined as CSA.

When survival analysis was used to examine the risk for adverse outcomes subsequent to reported CSA occurrence, significantly increased hazard ratios were found in women for all examined outcomes and in men for all but divorce and social anxiety (**Table 2**). The highest risks were for conduct disorder, suicide attempt, and rape at the age of 18 years or older.

Adverse outcome risks were examined as a function of the extent of CSA reported by the respondent (whether intercourse was involved) and, in CSA-negative respondents, whether the co-twin reported having experienced CSA. As demonstrated by the ORs reflecting their comparison to individuals from CSA-negative concordant pairs (**Table 3**), those reporting a history of CSA involving intercourse had the highest risks for all examined adverse outcomes, which were significantly greater than those for either group of CSA-negative respondents and exceeding those for individuals positive for CSA not involving intercourse for all outcomes other than major depression and social anxiety. Their risks were highest for conduct disorder, suicide attempt, and rape at the age of 18 years or older with respective ORs of 14.53 (95% CI, 8.58-24.60), 14.64 (95% CI, 9.18-23.34), and 10.03 (95% CI, 5.66-17.81) vs individuals from CSA-negative concordant pairs. Those reporting a history of CSA not involving intercourse had significantly higher risks for all adverse outcomes other than divorce when compared with individuals from CSA-negative concordant pairs. Consistent with the hypothesis of a significant family background effect, CSA-negative respondents whose co-twin was CSA-positive also had significantly higher risks for all adverse outcomes other than major depression and divorce when compared with members of CSA-negative concordant pairs. The risks for CSA-positive individuals for whom abuse did not involve intercourse exceeded those for CSA-negative, co-twin-positive individuals only for major depression and social anxiety. When these analyses were repeated controlling for family background variables, ORs were attenuated to varying degrees but the aforementioned pattern largely remained. Despite controlling for these family background variables, increased risk was still observed for CSA-negative, co-twin-positive individuals for 5 of 8 outcomes.

When conditional logistic regression was used to examine the relative risks for adverse outcomes in the CSA-positive vs the CSA-negative members of CSA-discordant pairs, increased risks were noted for all of the examined adverse outcomes (**Table 4**). Odds ratios for this intrapair comparison ranged from 1.56 for major depression (95% CI, 1.06-2.29) and alcohol dependence (95% CI, 1.01-2.40) to 7.50 (95% CI, 1.72-32.80) for divorce. Three separate discordant pair analyses (results not given) that examined whether estimates of intrapair risk differed by gender, zygosity, and the extent of CSA (if intercourse was involved) reported by the CSA-positive pair member found no significant differences.

COMMENT

In this large twin study, we found that individuals reporting a history of CSA had increased risk for subsequently occurring adverse outcomes of depression, suicide attempt, conduct disorder, alcohol and/or nicotine dependence, social anxiety, rape after the age of 18 years old, and divorce. Our data suggest that CSA occurs in the context of family background risk factors that contribute to adverse outcome risk. We provide strong evidence that CSA is associated with substantial risk not explained by these factors.

The association of CSA with risk for negative outcomes has been extensively documented.[1-21,23,24] In survival analyses, we observed consistently elevated hazard ratios affirming that CSA is associated with increased

Table 2. Prevalence Rates for Adverse Outcomes by Childhood Sexual Abuse (CSA) History and Hazard Ratios Reflecting the Risk for Outcomes Associated With Previously Occurring CSA*

	Women (n = 2318)			Men (n = 1664)		
Examined Association	CSA−	CSA+	HR (95% CI)	CSA−	CSA+	HR (95% CI)
Major depression	27.7	49.1	1.91 (1.59-2.31)	19.8	35.6	1.87 (1.27-2.76)
Suicide attempt	2.6	13.7	4.12 (2.78-6.10)	2.5	13.3	5.42 (2.83-10.38)
Conduct disorder	1.2	9.8	6.62 (3.55-12.33)	9.6	28.9	2.48 (1.21-5.06)
Alcohol dependence	11.8	28.9	2.98 (2.31-3.83)	28.8	38.9	1.67 (1.18-2.37)
Nicotine dependence	24.3	42.2	1.92 (1.58-2.34)	30.4	54.4	2.19 (1.61-2.97)
Social anxiety	8.7	18.6	1.89 (1.31-2.73)	7.9	13.3	0.88 (0.33-2.37)
Rape, aged ≥18 y	2.5	9.3	3.58 (2.31-5.54)	0.1	3.3	26.65 (4.39-161.74)
Divorce	5.4	12.7	2.53† (1.62-3.94)	5.7	11.6	2.19† (0.83-5.78)

*All values are given as percentages unless otherwise indicated. Minus sign indicates that the individual denied having experienced CSA; plus sign, that the individual reported having experienced CSA; HR, hazard ratio; and CI, confidence interval.

†The odds ratio rather than the HR was supplied since the age at divorce was not obtained.

Table 3. Adverse Outcomes as a Function of the Childhood Sexual Abuse (CSA) History of Respondent and Co-twin*

	Controlling Only for Gender				Controlling for Gender and Family Environmental Factors†			
Outcome	Resp CSA+ and Intercourse+ (n = 150)	Resp CSA+ and Intercourse− (n = 319)	Resp CSA− and Co-twin CSA+ (n = 283)	Resp CSA− and Co-twin CSA− (n = 3222)	Resp CSA+ and Intercourse+ (n = 150)	Resp CSA+ and Intercourse− (n = 319)	Resp CSA− and Co-twin CSA+ (n = 283)	Resp CSA− and Co-twin CSA− (n = 3222)
Major depression	2.88‡ (2.07-4.00)	2.35§ (1.82-3.03)	1.42 (1.09-1.86)	1.00 ...	1.81‡ (1.27-2.59)	1.83§ (1.40-2.40)	1.14 (0.85-1.52)	1.00 ...
Suicide attempt	14.64‡‖ (9.18-23.34)	3.34 (2.06-5.42)	2.57 (1.46-4.55)	1.00 ...	8.81‡‖ (5.29-14.66)	2.44 (1.44-4.15)	1.96 (1.08-3.55)	1.00 ...
Conduct disorder	14.53‡‖ (8.58-24.60)	3.89 (2.47-6.11)	2.90 (1.79-4.71)	1.00 ...	7.69‡‖ (4.43-13.36)	2.46 (1.46-4.15)	1.85 (1.06-3.24)	1.00 ...
Alcohol dependence	4.23‡‖ (2.92-6.12)	2.15 (1.60-2.90)	1.68 (1.24-2.29)	1.00 ...	3.46‡‖ (2.37-5.06)	1.81 (1.34-2.45)	1.43 (1.03-1.97)	1.00 ...
Nicotine dependence	4.26‡‖ (2.98-6.08)	1.93 (1.48-2.50)	1.75 (1.34-2.28)	1.00 ...	3.51‡‖ (2.42-5.08)	1.68 (1.27-2.21)	1.54 (1.17-2.04)	1.00 ...
Social anxiety	2.90‡ (1.92-4.37)	1.87§ (1.32-2.63)	1.14 (0.76-1.73)	1.00 ...	1.83‡ (1.16-2.88)	1.43 (0.99-2.07)	0.90 (0.58-1.38)	1.00 ...
Rape, aged ≥18 y	10.03‡‖ (5.66-17.81)	3.33 (1.84-6.04)	2.50 (1.25-5.02)	1.00 ...	9.94‡‖ (5.39-18.32)	3.28 (1.79-6.01)	2.50 (1.23-5.12)	1.00 ...
Divorce	6.38‡‖ (3.73-10.93)	1.32 (0.73-2.38)	1.17 (0.61-2.26)	1.00 ...	6.03‡‖ (3.40-10.70)	1.20 (0.66-2.17)	1.10 (0.57-2.10)	1.00 ...

*All values are given as odds ratio (95% confidence interval). Odds ratios and 95% confidence intervals were derived from comparisons to twins from pairs where the respondent and co-twin both denied CSA. Resp indicates respondent; plus sign, that the individual reported having experienced CSA; minus sign, that the individual denied having experienced CSA; and ellipses, does not apply.

†The factors include gender, maternal and paternal alcohol-related problems, parental conflict, parental fighting, stepparent, neglect, and physical abuse all coded as pair maximum value.

‡Risk observed for CSA + and intercourse + respondents was significantly greater than that for CSA − and co-twin CSA + respondents.

§Risk observed for CSA + and intercourse − respondents was significantly greater than that for CSA − and co-twin CSA + respondents.

‖Risk observed for CSA + and intercourse + respondents was significantly greater than that for CSA + and intercourse − respondents.

risk for subsequently occurring negative outcomes in women and men; hazard ratios were highest for conduct disorder, rape after the age of 18 years, and suicide attempt. We relaxed the criterion that outcomes must occur subsequent to CSA in further analyses to facilitate comparisons within our report and with the literature, and because of onset-determination issues (eg, less severe CSA often predated CSA involving intercourse).

In the comparison of outcomes as a function of the respondent's and co-twin's CSA history, the highest risks for adverse outcomes were associated with CSA involving intercourse, a replication of other reports.[6,7,10,16,21,24] With control for family background risk factors, these risks were diminished to varying degrees but remained significant. Individuals who reported CSA not involving intercourse had increased risk for all outcomes except divorce; significance was retained (other than for social anxiety) with control for family background risk factors.

The results of comparisons involving CSA-negative individuals whose co-twins were CSA-positive deserve further discussion. These individuals displayed significantly greater risk for most outcomes than members of CSA-negative pairs, strong evidence that the family backgrounds of those who experience CSA are also, on average, associated with considerable risk. However, despite controlling for family background risk factors that included parental alcohol-related problems, fighting, and conflict, presence of a stepparent, physical abuse, and ne-

Table 4. Within-Pair Comparison of Adverse Outcome Risks in Childhood Sexual Abuse (CSA)–Positive vs CSA-Negative Members of 283 Same-Sex Discordant Pairs*

Outcome (No. of Doubly Discordant Pairs)	Within-Pair Risk	
	OR	95% CI
Major depression (110)	1.56	1.06-2.29
Suicide attempt (41)	2.73	1.37-5.44
Conduct disorder (32)	3.00	1.35-6.68
Alcohol dependence (87)	1.56	1.01-2.40
Nicotine dependence (119)	1.71	1.18-2.47
Social anxiety (50)	2.33	1.27-4.27
Rape, aged ≥ 18 y (32)	2.56	1.18-5.52
Divorce (17)	7.50	1.72-32.80

*OR indicates odds ratio; CI, confidence interval.

glect, many of these risks retained significance. Moreover, few significant differences were found with comparison to CSA-positive, intercourse-negative respondents. A recent examination[29] found that unreliability in CSA reporting largely consisted of false-negative reports in CSA-positive individuals. Similar reporting problems in our sample might explain these findings, particularly if CSA false-negative respondents were more forthcoming about psychosocial outcomes. The closeness of twin relationships could have further blurred distinctions if the nonabused twin's supportiveness led to greater co-twin resiliency at some personal cost. Alternatively, the pattern of risks retaining significance in CSA-negative, co-twin-positive individuals suggests that we may have inadequately controlled for familial risk factors associated with impulsivity and substance abuse. Because all ORs were higher (though not significantly so) for CSA-positive, intercourse-negative individuals than CSA-negative, co-twin CSA-positive individuals, the lack of significance for these comparisons may have resulted from limited power.

In discordant pairs analyses, we observed significantly greater risk for all 8 examined adverse outcomes in CSA-positive respondents vs their CSA-negative co-twins. Because data from CSA false-negative reports would reduce risk estimates, our values are likely conservative. Despite the aforementioned finding of greater risks associated with CSA involving intercourse, we observed no significant heterogeneity of conditional ORs as a function of CSA severity in these discordant pair analyses. Greater levels of family background risk factors occurring in association with CSA involving intercourse may have contributed to our difficulty distinguishing risks associated with less severe CSA. Discordant pair analysis appears to provide an effective means of controlling for family background risk factors across a range of CSA severity.

Two prior twin studies[23,24] used discordant pair analyses to estimate the association between CSA history and negative outcomes. Although few comparisons reached significance in either report, the ORs for the same outcomes essentially fall within our study's 95% CIs. Presumably, because these studies included considerably fewer discordant pairs, their power to detect differences was limited. One investigation[23] also found no significant zygosity effect in discordant pair analyses.

General population studies[6,7,14,16,20,21] have attempted to control for family background factors by identifying important predictors and entering them as control variables in regression models. They typically have reported risks for adverse outcomes associated with CSA to be preserved but considerably decreased in magnitude. This approach may have been overly conservative with considerable correlation of predictor variables (collinearity), including CSA history, limiting significance. In controlling for family background risk factors, we accepted either twin's report of their presence to minimize retrospective recall bias. By definition, this approach could not alter discordant pair analysis results. As noted, we found evidence persisted for family background effects notwithstanding the inclusion of control variables into the logistic models.

Despite our cutoff for CSA (age 18 years) being the highest limit used commonly,[3] our sample's mean age of CSA occurrence (10.8 years) is similar to values previously reported.[2,3,11,30,31] The prevalence of CSA in our sample is consistent with that for contact CSA in general population samples.[2,3,30-35] Our rates for CSA involving intercourse were essentially identical to those in a New Zealand study.[32] Previous reports have also found higher CSA rates associated with parental alcoholism[2,3,32,33,35] and female gender[3,8,10,23,30-32,34] with smaller gender differences when abuse involved extrafamilial perpetrators.[30]

Associations between self-reported CSA and earlier smoking initiation and heavier tobacco use have previously been reported.[36] A positive relationship has been found between the total number of adverse childhood experiences and risk for subsequent smoking behavior.[18] Our finding that, controlling for family background risk factors, self-reported CSA is associated with significantly increased nicotine-dependence risk is a logical extension of these results.[5,18,36]

Our results must be interpreted in the context of potential biases from the following sources: (1) retrospective reporting, (2) CSA definition, (3) sample selection, and (4) assumptions made in control for family background. A bias would result from the use of retrospective self-report data if individuals currently experiencing problems were more likely to recall prior abuse, resulting in an inflation of the observed associations. However, a recent examination[29] of the stability of CSA reports found no relationship between variations in reports and psychiatric status before, during, or after the reported abuse. The greater CSA risk observed with respondents' vs co-twins' report of parental alcohol-related problems could indicate greater willingness for CSA survivors to acknowledge negative aspects of childhood. Onset-dating inaccuracies may have occurred, but would not be expected to systematically bias results.

The level of internal consistency displayed by component items, coupled with the necessity of a binary measure for discordant pair analyses, provide adequate rationale for our composite CSA variable. Although consistent with other studies,[19,20] our use of a cutoff date (respondents' 18th birthday) before which forced intercourse was considered CSA and after which, rape at the age of 18 years old or older would have included abuse persisting into adulthood under both categories, amplifying the association with rape after the age of 18 years. We required conservatively that contact be forced if it

involved either another child within the family or someone outside the family at least 5 years older. Those who have suggested[22] that males suffer less consequences after CSA may object to combining data across gender, however, we found no evidence for a significant gender effect.

A selection bias may have arisen from the panel's initial recruitment since parents aware of abuse may have been less likely to volunteer their twins. The similarities of CSA prevalence and characteristics to other reports[2,3,30-35] suggest that this bias was limited. Similarly, it is unlikely that telephone assessment introduced any substantial bias over face-to-face[32] approaches. Our exclusion of pairs in which either twin was not interviewed could have eliminated the most severely abused individuals reducing the magnitude of effects attributed to CSA. A post hoc examination including data from same-sex twins with noninterviewed co-twins revealed that CSA-positive women were actually more likely to belong to pairs where both twins were interviewed; no significant differences were observed for male subjects.

We controlled for family background risk factors between rather than within pairs to minimize reporting bias. However, the CSA-positive twin may have received a larger dose of trauma or differentially negative treatment. Alternatively, additional stressors may have had a larger influence on either twin. Our approach could have biased estimates in either direction. Finally, we cannot infer a causal link from results for CSA-discordant pairs. It remains possible that other unmeasured risk factors, for which the twins are discordant, predict both increased risk of CSA and other outcomes.

In the largest sample of CSA-discordant same-sex pairs thus evaluated, we observed significantly greater risk for all 8 examined adverse outcomes in CSA-positive respondents vs their co-twins. The most straightforward interpretation of our results is that there is a direct association between CSA and risk for adverse outcomes. We also provide evidence that family background risk factors contribute increased negative outcome risk. These findings demonstrate the considerable potential of sibling studies for dissecting the direct and correlated family background effects associated with CSA.

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REFERENCES

1. Kendall-Tackett KA, Williams LM, Finkelhor D. Impact of sexual abuse on children: a review and synthesis of recent empirical studies [review]. *Psychol Bull*. 1993;113:164-180.
2. Holmes WC, Slap GB. Sexual abuse of boys: definition, prevalence, correlates, sequelae, and management [review]. *JAMA*. 1998;280:1855-1862.
3. Fergusson DM, Mullen PE. *Childhood Sexual Abuse: An Evidence-Based Perspective*. Thousand Oaks, Calif: SAGE Publications Inc; 1999.
4. Jasinski JL, Williams LM, Siegel J. Childhood physical and sexual abuse as risk factors for heavy drinking among African-American women: a prospective study. *Child Abuse Negl*. 2000;24:1061-1071.
5. Schulte JG, Dinwiddie SH, Pribor EF, Yutzy SH. Psychiatric diagnoses of adult male victims of childhood sexual abuse. *J Nerv Ment Dis*. 1995;183:111-113.
6. Fergusson DM, Horwood LJ, Lynskey MT. Childhood sexual abuse and psychiatric disorder in young adulthood, II: psychiatric outcomes of childhood sexual abuse. *J Am Acad Child Adolesc Psychiatry*. 1996;35:1365-1374.
7. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP. Childhood sexual abuse and mental health in adult life. *Br J Psychiatry*. 1993;163:721-732.
8. Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the US National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52:1048-1060.
9. Silverman AB, Reinherz HZ, Giaconia RM. The long-term sequelae of child and adolescent abuse: a longitudinal community study. *Child Abuse Negl*. 1996;20:709-723.
10. Kessler RC, Davis CG, Kendler KS. Childhood adversity and adult psychiatric disorder in the US National Comorbidity Survey. *Psychol Med*. 1997;27:1101-1119.
11. Spak L, Spak F, Allebeck P. Sexual abuse and alcoholism in a female population. *Addiction*. 1998;93:1365-1373.
12. Bifulco A, Brown GW, Adler Z. Early sexual abuse and clinical depression in adult life. *Br J Psychiatry*. 1991;159:115-122.
13. Bushnell JA, Wells JE, Oakley-Browne MA. Long-term effects of intrafamilial sexual abuse in childhood. *Acta Psychiatr Scand*. 1992;85:136-142.
14. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP. The long-term impact of the physical, emotional, and sexual abuse of children: a community study. *Child Abuse Negl*. 1996;20:7-21.
15. Spak L, Spak F, Allebeck P. Factors in childhood and youth predicting alcohol dependence and abuse in Swedish women: findings from a general population study. *Alcohol Alcohol*. 1997;32:267-274.
16. Fleming J, Mullen PE, Sibthorpe B, Bammer G. The long-term impact of childhood sexual abuse in Australian women. *Child Abuse Negl*. 1999;23:145-159.
17. Johnson JG, Cohen P, Brown J, Smailes EM, Bernstein DP. Childhood maltreatment increases risk for personality disorders during early adulthood. *Arch Gen Psychiatry*. 1999;56:600-606.
18. Anda RF, Croft JB, Felitti VJ, Nordenberg D, Giles WH, Williamson DF, Giovino GA. Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA*. 1999;282:1652-1658.
19. Wyatt GE, Guthrie D, Notgrass CM. Differential effects of women's child sexual abuse and subsequent sexual revictimization. *J Consult Clin Psych*. 1992;60:167-173.
20. Fergusson DM, Horwood LJ, Lynskey MT. Childhood sexual abuse, adolescent sexual behaviors and sexual revictimization. *Child Abuse Negl*. 1997;21:789-803.
21. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP. The effect of childhood sexual abuse on social, interpersonal and sexual function in adult life. *Br J Psychiatry*. 1994;165:35-47.
22. Rind B, Tromovitch P, Bauserman R. A meta-analytic examination of assumed properties of child sexual abuse using college samples. *Psychol Bull*. 1998;124:22-53.
23. Dinwiddie S, Heath AC, Dunne MP, Bucholz KK, Madden PA, Slutske WS, Bierut LJ, Statham DB, Martin NG. Early sexual abuse and lifetime psychopathology: a co-twin–control study. *Psychol Med*. 2000;30:41-52.
24. Kendler KS, Bulik CM, Silberg J, Hettema JM, Myers J, Prescott CA. Childhood sexual abuse and adult psychiatric and substance use disorders in women: an epidemiological and co-twin control analysis. *Arch Gen Psychiatry*. 2000;57:953-959.
25. Bucholz KK, Cadoret R, Cloninger CR, Dinwiddie SH, Hesselbrock VM, Nurnberger JI Jr, Reich T, Schmidt I, Schuckit MA. A new semi-structured psychiatric interview for use in genetic linkage studies: a report on the reliability of the SSAGA. *J Stud Alcohol*. 1994;55:149-158.
26. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. Washington, DC: American Psychiatric Association; 1994.
27. SAS Institute Inc. *SAS/STAT Software: Changes and Enhancements for Release 6.12*. Cary, NC: SAS Institute Inc; 1996.
28. Stata Corp. *Stata Statistical Software: Release 6.0*. College Station, Tex: Stata Corp; 1999.
29. Fergusson DM, Horwood LJ, Woodward, LJ. The stability of child abuse reports: a longitudinal study of the reporting behavior of young adults. *Psychol Med*. 2000;30:529-544.
30. Finkelhor D, Hotaling G, Lewis IA, Smith C. Sexual abuse in a national survey of adult men and women: prevalence, characteristics, and risk factors. *Child Abuse Negl*. 1990;14:19-28.
31. Fleming JM. Prevalence of childhood sexual abuse in a community sample of Australian women. *Med J Aust*. 1997;166:65-68.
32. Fergusson DM, Lynskey MT, Horwood LJ. Childhood sexual abuse and psychiatric disorder in young adulthood, I: prevalence of sexual abuse and factors associated with sexual abuse. *J Am Acad Child Adolesc Psychiatry*. 1996;34:1355-1364.
33. Fleming J, Mullen P, Bammer G. A study of potential risk factors for sexual abuse in childhood. *Child Abuse Negl*. 1997;21:49-58.
34. MacMillan HL, Fleming JE, Trocme N, Boyle MH, Wong M, Racine YA, Beardslee WR, Offord DR. Prevalence of child physical and sexual abuse in the community: results from the Ontario Health Supplement. *JAMA*. 1997;278:131-135.
35. Vogeltanz ND, Wilsnack SC, Harris TR, Wilsnack RW, Wonderlich SA, Kristjanson AF. Prevalence and risk factors for childhood sexual abuse in women: national survey findings. *Child Abuse Negl*. 1999;23:579-592.
36. Springs FE, Friedrich WN. Health risk behaviors and medical sequelae of childhood sexual abuse. *Mayo Clin Proc*. 1992;67:527-532.

EXHIBIT 4

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The Psychological Impact of Sexual Abuse of Native American Boarding-School Children

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Despite the high value placed on children within almost all Native American communities and cultures, there is growing evidence that mistreatment of Native American children, including sexual abuse, is about as prevalent as it is in the dominant society (**Fischler, 1985, Lujan et al., 1989**).

Investigators have underscored the poverty, alcohol and drug use, considerable situational stress, and a variety of factors related to loss of cultural identity as important predisposing factors in the physical and sexual abuse of Native American children. Some investigators (**Schafer and McIlwaine, 1992**) have noted the frequency with which Native American pedophiles were initially sexually abused themselves while attending religious and Bureau of Indian Affairs boarding schools.

Although there is a small but growing literature about the presence and prevalence of sexual abuse of Native American children and about the difficulties in determining the range and extent of such abuse, there is almost no literature about the diagnosis or evaluation of the impact of sexual abuse on Native American children. The present study is an attempt to present such data.

The impact of sexual abuse on children and adolescents in general has been viewed in a variety of ways (**Lourie and Blick, 1987**). The role of sexual abuse in producing subjective distress, in increasing the likelihood of belonging to certain nosological categories (e.g., depression, multiple personality, borderline personality), and in increasing the probability of specific behavioral outcomes (e.g., prostitution, sexual dysfunction) have all been examined. The literature in this area also explores the impact of sexual abuse on the developing personality (**Abbel and Roll, 1989; Goodwin, 1987**).

The present study examines the impact of a particular kind of sexual

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abuse on children belonging to a specific cultural group. The effect of homosexual molestation on two samples of Native American boys was examined from a variety of psychoanalytic perspectives.

Native American boys are exposed to an entirely different world view than are Anglo children, and this world view may affect the nature and extent of the impact of sexual abuse. Locust (**1988**) has summarized general assumptions of Native American belief systems. These include the beliefs that humans are three-fold beings made up of spirit, mind, and body; that the spirit world exists side-by-side with, and intermingles with the physical world; that illness affects the mind and spirit as well as the body; that unwellness may be caused either by the violation of a sacred or tribal taboo or by witchcraft; and that each of us is personally responsible for his or her own wellness.

Implications of these beliefs for victims of sexual abuse include the assumption that violation of the body must necessarily include violation of the spirit. Furthermore, the violation of taboos against sexual activity within the same gender or across generational lines destroys natural harmony and balance and is the moral responsibility of the victim as well as the perpetrator. If it is assumed by the community that witchcraft was involved (perhaps because of the victim's psychological symptoms), the victim may be isolated because of the danger of contamination he poses to others. This and the inability of the victim to break taboo by talking about taboo-breaking behavior is likely to further alienate the victim in a culture where healing is traditionally achieved through social reintegration.

The effects of sexual abuse on Native American children and adolescents might be expected to differ in

nature or degree from that of Anglo children not only because of cultural differences in the world view. Native American people are members of a conquered minority and the prevalence of problems of alcohol abuse and high morbidity and mortality rates may create additional vulnerabilities to the traumatic experience of abuse. Following Pine (1990), we have explored the effects of the abuse in four areas of personality: drive, ego, object relations, and self.

Drive

On theoretical as well as empirical grounds, one might expect that sexual abuse would have an impact on the sexual and aggressive drives of adolescents and young men. In the present study, the possibility of regression to prelatency sexual experiences and defenses, overstimulation or flooding of sexual excitation and experiences, and

inhibition of sexual and other drive-related experiences was explored.

Also examined were the possibility of stimulation of aggressive drives with subsequent loss of control, and the merger of aggressive drive with guilt, resulting in acting out against the self.

Native American cultural factors, which might be expected to act as intervening variables influencing the effects of sexual abuse on drives, include taboos against sexual activities and open discussion of sex, and the expectation that individuals deal with aggression so as to modulate the drive and keep it from intruding into family and community life.

Ego

The effects of sexual abuse on the developing ego may include the expression of various defensive reactions against the conflicts over stimulation of sexual and aggressive urges. Sexual abuse might also be expected to affect the capacity for adaptation. The present study examined the adequacy with which defenses were able to ward off anxiety, especially around sexual and aggressive conflicts, and prevent openly sexual and aggressive content of overwhelming stimulation (e.g., nightmares, anxiety attacks). Effects on reality testing were also examined, as were effects on judgment, stimulus barrier, and reasoning, with particular attention to primary thought processes.

Native American cultural factors conceivably affecting the impact of sexual abuse on ego function include both the taboo against sexual activities and the taboo against discussing sexual activities, curtailing the opportunity to share the experience with others. Also, the Native American experience of being a conquered and relatively powerless minority might be expected to heighten the experience of powerlessness felt as a victim of sexual abuse. In addition, the lack of a cultural context for understanding the event would make it more overwhelming, with less opportunity for rationalization and intellectualization. The resultant increased anger would burden the young male, who is trying to cope with developmental upsurges in anger in a culture in which individuals are expected to control their anger more than is expected in the dominant culture.

Object Relations

Also explored in this study was the effect of sexual abuse on object relations, or interpersonal interactions phenominologically experienced, recorded, integrated in memory, and infused with affective quality, then serving as a matrix for the perception and integration of

new interpersonal experiences. The object relations model involves the assumption of a tendency to repetition or transference, which were also explored.

The existence of inappropriate reactions to caretakers, especially to criticism and attempts at control by caretakers and of transference reenactments were examined. Also examined was the possibility of the withdrawal or loss of interest in social and cultural activities.

In the case of Native American boys, withdrawal from culturally appropriate activities and loss of contact with family and community might be expected to be particularly acute. This is the case because of the onus placed on individuals who have broken taboo, the fear of possible witchcraft, and the inability of the victims to break

taboo again by talking about having been engaged in taboo-breaking behavior.

Self

The focus on self is here defined as a focus on self experiences, rather than the various theoretical formulations of "self psychologies." In the present study, the effects of sexual abuse on the ongoing subjective state of the person (especially self-evaluative experiences), the sense of genuineness or authenticity, the sense of agency, and the sense of distinctiveness of the self or boundaries were explored. As regards evaluative components of the self, the phenomena of shame and attempts to deal with shame by grandiosity and omnipotence were examined. Also examined were the genuineness or authenticity of experience or the degree of derealization, as well as problems with body boundaries.

Relevant cultural factors here include the fact that Native American cosmology emphasizes balance and place, with homosexual activities for most males being possibly viewed as not so much sinful, but rather as involving activities that are out of proper balance or place. A potential obstacle to the healing of Native American sexual abuse victims is the fact that the reestablishment of balance is traditionally done through ceremonies such as sings, which could refocus attention on the shameful activity. Furthermore, the tribal nature of Native American culture involves identity being broken down into clan and community units, so that there is close face-to-face interaction, emphasizing the mechanism of shame.

Method

Data from two samples of Native American boys was used in the present study. Each sample consisted of a group of dormitory students

from two boarding schools located in western states. Both samples consisted of boys from the same tribe. The first, an "older" sample, consisting of seven boys, was molested by an Anglo teacher at their school. They ranged in age from 11 to 14 ($x = 12.9$) at the time of their molestation. The "younger" sample was molested by a Native American aide from the boys' tribe at their dormitory. These boys ranged in age from 10 to 12 ($x = 10.8$) when molested, though one of the 10-year-old's molestation began earlier than that of others in this sample, and lasted until he was over 13.

For purposes of the present study, severity of molestation was described as relatively more or less severe. Adults in the dominant U.S. culture usually describe sexual abuse as more severe if it involves penetration, especially anal or oral penetration, blatant aggression, or scatological activities. Exhibitionism, voyeurism, fondling, and scatological talk are usually described as less severe. We have followed this convention for heuristic reasons, but it is important to note that the adultocentric, ethnocentric position does not necessarily match the phenomenological experience of the child, and particularly one who is not of the dominant culture.

For example, one of the boys in the older sample was made to walk around the dormitory with his genitalia outlined on his pants in bright red magic marker. The degree of humiliation was extreme, in large part, because of the high self-consciousness and concern about evaluation of others that is concomitant with adolescence. The degree of shame was also extreme because his culture has a stern prohibition against exposing or drawing attention to the genitals in any way. From a culturally sensitive and child-oriented perspective, this episode would be experienced at least as severe, if not more so, than would be an episode of penetration that did not involve the public exposure or the open violation of social taboo that is evident in this case.

Most of the boys in both samples may be considered to have been at risk or emotionally vulnerable because of their family histories, which included parental death, disability, abandonment, or alcoholism. All may be considered to have been at academic risk as well, as drop-out rates for Native American students are considerably higher than those for Anglo students (**Attneave, 1979**; **Berlin, 1987**).

Ages, severity of molestation, and family-risk factors of the two samples are summarized in Tables 1 and 2.

The data for the older sample came from evaluations consisting of three diagnostic interviews with each adolescent and a battery of psychological tests, including the Rorschach (**1922**), Thematic Apperception Test (**Murray, 1943**), Minnesota Multiphasic Personality Inventory (MMPI) (Dahlstrom, Welsh, & **Dahlstrom, 1972**), and Human

Table 1. Characteristics of Older Sample

S	*Age when molested*	*Severity of molestation*	*Family risk factors*
1	14	More severe	Alcoholic parents
2	11	More severe	Father murdered
3	13	More severe	Alcoholic parents
4	13	More severe	Unknown
5	12	Less severe	Alcoholic father
6	13	More severe	Father abandoned family
7	12	More severe	Older brother in jail, alcoholic, diabled father

Figure Drawings **(Koppitz, 1968)**. Each adolescent's parents or parent surrogates were also interviewed. The interview of the adults was conducted jointly by one of the authors and by a social worker from the adolescents' tribe, who conducted the interviews largely or exclusively in the native language of the interviewee.

Data available for the younger sample were collected by the other author of the present paper, prior to therapy, with a follow-up evaluation following his working in therapy on a weekly basis with four of the five boys for 1 year. Data consisted of the Rorschach **(1922)**, Thematic Apperception Test **(Murray, 1943)**, Piers-Harris Children's Self-Concept Scale **(Harris, 1963)**, Human Figure Drawings **(Koppitz, 1968)**, sentence completion blanks **(Rotter & Rafferty, 1950)**, and Weschler Intelligence Scale for Children-Revised **(Weschler, 1974)**, plus extensive clinical data from their therapy sessions. In addition, parents of three of the boys were interviewed. These interviews were

Table 2. Characteristics of Younger Sample

S	*Age when molested*	*Severity of molestation*	*Family risk factors*
1	10	less severe	biological mother alcoholic; froze to death at 14
2	12	More severe	Unknown (alcoholism suspected
3	12	Less severe	Mother abandoned family; father alcoholic, later brain damaged in accident
4	13	Less severe	Father alcoholic, abandoned family
5	10-13	More severe	Family intact, but father described as "never around"

conducted in English, as each was fluent in this language. Dormitory counselors, who knew the other two boys well, were interviewed regarding the boys, whose parents declined to be interviewed.

Results

Drives

The effects of molestation were evident on the sexual drive of boys in the two samples in a number of ways. In some cases, overstimulation appeared to have resulted in hypersexuality. It was reported by dorm staff that some members of the younger sample had engaged in mutual masturbation since the abuse. In the older sample, difficulties with hypersexuality, or a compulsive need for sex to the point where it created problems in their relationships, was reported by three of the seven victims.

Among the younger sample, there was also evidence of inhibition of sexual interest and sexual drive, with vehement rejection of dating or other expressions of heterosexual development, at a time when peers were engaging in those activities.

Considerable evidence of substitution of oral gratification was also seen. The most severely abused member

of the younger sample of boys, who had been molested almost nightly for 3 to 4 years, culminating in participation in active and passive anal intercourse, became extensively involved in drug use. The compulsivity of his drug use and its passivity, coupled with the absence of age-appropriate psychosexual development and the child's association supported the notion of his drug use as an oral symptom. His drug use resulted in his being compelled to undergo drug treatment, where his sexual molestation and that of the others in this group of boys came to light.

In the older sample, five of the seven abuse victims are known to have developed severe problems with alcohol. Two were expelled for repeated incidents of drinking at school. A third was convicted of manslaughter when driving while intoxicated, and later was himself killed driving while intoxicated.

The effects of the sexual abuse on aggressive drives in both samples were also dramatic. Often the aggression was turned toward the self in the form of depression and self-hatred. All of the boys in the younger sample were depressed, and all had extremely poor self-concepts incorporating the belief that they were unimportant, bad, dumb, and ugly when first evaluated. Five of the seven boys in the older

sample were also judged by their evaluators to have been depressed when first seen.

Within the younger sample, four of the five boys presented as extremely angry when first seen. These four acted out in a variety of ways against peers, family members, school staff, and their therapist. Anger was a major part of the presentation of six of the boys in the older sample. Only in the individual whose molestation was judged to be least severe of this group was there no manifestation of excessive anger. Acting out in this group was particularly dramatic. These individuals were described by school personnel as "mean," "aggressive," "abusive," and "violent." One member of this group committed murder less than a year after being molested.

Ego

A constant among the boys in both samples was a failure of the ego defenses to ward off anxiety. All of the boys in the younger sample presented at first evaluation as highly anxious, and they described themselves as such. Several reported problems with nightmares, although none reported anxiety attacks. All presented with chronic dysphoria, and the most severely abused became involved in drug abuse.

Within the older sample, five of seven presented as highly anxious as well as dysphoric. Those who did not showed recent histories of extreme aggressive acting out, including the individual who was convicted of murder. Five of seven were already alcoholic at the time of being evaluated. The most severely abused member of the younger sample became heavily involved in drug abuse following his molestation.

The defense of acting out characterized not only the older sample, but to a less-dramatic degree, the younger sample as well. Four of the five boys in this sample were reported to have changed from being polite and well-behaved students to angry, aggressive, and oppositional ones who were chronically in trouble with dorm staff and peers.

With defenses functioning poorly, it is not surprising that other ego functions were impaired in members of both samples. Perhaps the most dramatic evidence of such impairment was in the disruption of attention, concentration, and learning. Though a number of boys in each group were reported to have been good or excellent students prior to their molestation, grades consistently fell for the boys after their molestation. The most severely affected boy in the younger sample became so unable to focus in school that he dropped out in the

seventh grade, though he had a high IQ and had been an excellent student previously. None of the members of the older sample finished high school, with the majority being expelled within a few years of their molestation.

Reality testing appeared to suffer, but never to the point of hallucinations or delusions. Judgment was almost universally impaired, with all of the boys in both samples repeatedly engaging in self-destructive behaviors that they had known to avoid prior to their molestation. The effect was especially dramatic in the older sample, which was typified by violent outbursts, binge drinking, and problems with the police.

A few of the older boys also showed disruption in stimulus barrier, or the automatic filtering in and filtering out of external stimulation. Three of the seven boys in the older sample reported that since the sexual abuse,

noises that they had tolerated previously were often experienced as annoying or painful. One boy reported being disturbed by the hum of florescent lights. The other two reported that sounds in the night that they had found comforting or neutral (e.g., crickets chirping, wind swirling around their hogans) seemed to be irritating and penetrating. As one boy put it, the sounds sometimes "stick into me." All three of these boys talked about needing "more quiet" since the sexual abuse.

Object Relations

As regards object relations, both inappropriate reactions to caretakers and transference reenactments, as well as withdrawal from culturally appropriate activities, families, and community were typical of both samples. Four of the five boys in the younger sample changed dramatically following their molestation in the direction of becoming oppositional with dorm and school personnel. Three of these boys also showed increased oppositionality toward their parents, whereas only one of the boys did not exhibit oppositionality at either school or home.

All of the boys in the younger sample, except this one individual, demonstrated transference reenactments with their therapists. They responded to his attempts at establishing a close relationship with them with hostility, constant testing, and marked ambivalence. These reactions demonstrated only minor thawing in a year of weekly therapy. The most severely abused member of the group refused to participate in therapy at all. In the older sample, dramatic oppositional behavior

toward school and dormitory personnel was reported for six of the seven boys.

Withdrawal from culturally appropriate activities, family, or community was demonstrated by four of the five boys in the younger sample. Two of the boys withdrew significantly from interaction with family, school and dorm personnel, and peers. One continued to interact well with peers, but withdrew from family and staff members.

The one member of the younger sample who did not withdraw from interactions with others, or from culturally appropriate activities continued his highly successful participation in Native American dance competitions. This individual demonstrated the best recovery of any of the boys in the sample within the year of therapy. Another of the boys, who had been quite withdrawn, showed improved functioning overall concurrently with beginning to participate on his school's basketball team.

It is impossible to tell definitely from the data we have whether the boys were able to participate in culturally appropriate activities because their object relations were less impaired, or if the participation in culturally appropriate activities was a major factor in reduction of the impact of the trauma, or if both notions are correct. Especially for Native Americans, however, it is through cultural experiences of varying types that a person is restored to balance and harmony.

Six of the seven boys in the older sample also demonstrated generalized withdrawal from peers, family, and community.

Self

As regards effects of the molestation on the evaluative component of the sense of self seen in the two samples, the clearest of these was on the experience of shame. Within the younger sample, all of the boys described themselves as shameful and disgusting on interview and on a standardized self-concept test (the Piers–Harris Children's Self-Concept Scale) (Harris, 1963). Attempts to deal with shame by grandiosity and omnipotence were not seen in this sample.

The older boys also described themselves in consistently negative terms. Generally the self-evaluation of members of this culture are more modest than generally found in the dominant society. It is also uncharacteristic for them to describe themselves in outstandingly negative terms, however. All of the older boys, except one, used starkly negative terms to describe themselves. The one exception used grandiose terms for self-description including a very uncommon pattern, in his culture, of describing himself as better than his people.

In neither the older nor in the younger sample were there cases in which there was evidence of seriously disrupted body boundaries, loss of a sense of genuineness, authenticity, or agency. The one "positive" finding was that in the area of self (excluding the evaluation of self) these samples experienced relatively mild disruption

in self.

Discussion

The number of boys for whom data is available in the present study make it potentially more valuable than the individual clinical case studies that have characterized research in this area. The existence of two separate samples from different schools and states, and representing differences in age at molestation, race of perpetrator, and type of molestation also contribute to its value. The size of the total sample is still too small, however, to allow us to view this as a hypothesistesting study with results that can be neatly defined in terms of statistical significance. Rather, we believe that these findings should be viewed as a check on our general expectations regarding the effects of sexual abuse on Native American boys.

We have raised the question of whether aspects of Native American culture, including taboos relating to sexual behavior, an emphasis on harmony and balance, beliefs regarding wellness and unwellness, and traditional mechanisms for healing might not create additional vulnerability to the traumatic experience of sexual abuse. We have also asked whether additional vulnerability might not also be created by Native American children's status as members of a conquered minority, and the prevalence of problems of familial alcohol abuse and high morbidity and mortality rates.

The answer of these questions appears to be yes. Given the diversity of the victims, the perpetrators, and the nature of the molestation itself, the consistency of findings is impressive. As expected, the experience of being sexually abused proved to be a devastating one for the boys in our two samples. The victims demonstrated a broad range of severe disruptions of drive, functioning of the ego, and object relations.

These disruptions included exaggeration or inhibition of sexual drive, dramatic increases in aggressive drives, and in the older sample, substitution of oral gratification in the form of substance abuse.

Disruption of ego function was consistently seen in failure of the ego defenses to ward off anxiety and depression. The defense of acting out was repeatedly seen in members of both samples, with this

taking particularly dramatic form in the older sample, who had had time for their behavior to develop a more pernicious form, and who had not had any significant psychotherapy.

In both groups, deleterious effects on ego function were also consistently seen to take the form of disruption in the boys' schooling. Though judgment appeared to be impaired in both groups, reality testing did not apparently reach the level of hallucinations or delusions.

Consistent effects on object relations were also seen in both samples on the way the self was viewed. Consistent with earlier reports in the literature on the effect of sexual abuse, members of both samples were found to see themselves as shameful, disgusting creatures. This effect did lessen in the members of the younger sample who received psychotherapy.

The significance of these findings is disturbing. Though not contrary to expectations, the extent and severity of the impact of sexual abuse on Native American boys suggests that cultural and sociological forces, in fact, create greater vulnerability in Native American victims, who may be both less able to defend themselves from abuse and more profoundly affected by it. Furthermore, the close community structure of Native American life may increase the likelihood of victims in turn abusing still another generation.

Abused children have a higher than likely risk of becoming abusing adults. Abused Indian children are likely to return to their communities which are often small and compact. The size, closeness, and intimacy of their communities, and the communities' high level of trust that community members will care for children, provide temptation and opportunity for perpetuation of the cycle of abuse.

References

Abel, T., and Roll, S. (1989), Diagnostic and therapeutic aspects of near incest, *Int. J. Psycho-Anal.*, 7, 27-33. [↦]

Attneave, C. L. (1979), The American Indian Child, in Joseph D. Noshpitz (Ed.), Basic Handbook of Child Psychiatry: Volume 1, Basic Books, New York, pp. 239-248.

Berlin, I. N. (1987), Prevention of psychiatric disorder in American Indian children and adolescents, in Joseph D. Noshpitz (Ed.), Basic Handbook of Child Psychiatry: Volume V, Basic Books, New York, pp. 600-612.

Dalhstrom, W. G., Welsh, G. S., & Dahlstrom, L. E. (1972), An MMPI Handbook. Minneapolis: University of Minnesota Press.

Fischler, R. (1985), Child abuse and neglect in American Indian communities, *Child Abuse Negl.*, 9, 95-106.

Goodwin, J. (1987), Developmental impacts of incest, in Joseph D. Noshpitz (Ed.), Basic Handbook of Child Psychiatry,

Volume V, Basic Books, New York, pp. 103-111.
Harris, D. B. (1963) Children's Drawings as Measures of Intellectual Maturity. New York: Harcourt Brace Jovanovich.

Koppitz, E. M. (1968) Psychological Evaluation of Children's Human Figure Drawings. New York: Grune and Stratton.
Locust, C. (1988), Wounding the spirit: Discrimination and traditional American Indian belief systems, *Harvard Educat. Rev.*, 58, 315-330.
Lourie, I. S., and Blick, L. C. (1987), Child sexual abuse, in Joseph D. Noshpitz (Ed.), Basic Handbook of Child Psychiatry: Volume V, Basic Books, New York, pp. 280-286.
Lujan, C., DeBruyn, L. M., May, P. A., and Bird, M. E. (1989), Profile of abused and neglected American Indian children in the southwest, *Child Abuse Negl.*, 13, 449-461.
Murray, H. (1943), Thematic Apperception Test Manual. Cambridge, MA: Harvard University Press.
Piasecki, M. A., Spero, M. M., Biernoff, M. P., Hiat, A. B., Taylor, S. S., and Bechtold, D. W. (1989), Abuse and neglect of American Indian children: Findings from a survey of federal providers, *Am. Indian Alaska Native Mental Health Res.*, 3, 43-62.
Pine, F. (1990), Drive, ego, object, self. New York: Basic Books.
Rorschach, H. (1922) Psychodiagnostics. New York: Grune and Stratton.
Rotter, J. B., and Rafferty, J. (1950) Manual for the Rotter Incomplete Sentences Blank. New York: The Psychological Corporation.
Schafer, J. R., and McIlwaine, B. D. (1992), Investigating child abuse in the American Indian community, *Am. Indian Q.*, 16, 157-167.
Wechsler, D. (1974) Wechsler Intelligence Scale for Children-Revised. New York: The Psychological Corporation.

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