Retrospective Accounts of Recurrent Parental Physical Abuse as a Predictor of Adult Laboratory-Induced Aggression

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Child abuse has been frequently associated with adult aggression in its many forms. The Point Subtraction Aggression Paradigm (PSAP) is a popular laboratory-based procedure derived from the retaliatory responses of participants engaged in a monetary-reinforced computer game. PSAP responses have been found to discriminate between participants with and without violent, antisocial, substance abuse, and even contact-sport athletic histories. The present study provided an initial test of the sensitivity of the PSAP and the Overt Aggression Scale (OAS) in discriminating between college students (n = 28) with and without reported histories of recurrent physical abuse as defined by incidents of being pushed, shoved, struck, punched, or threatened with physical violence by a parent more than once every six weeks over 15 years of upbringing. PSAP responses were substantially higher (d = 2.1) among participants reporting histories of recurrent parental physical abuse, with 46% (as opposed to 0% for controls) of these individuals generating PSAP responses in excess of 400 (average found for violent parolees). Group differences on the OAS were also considerable (> 1 SD). Larger factorial designs examining relationships between a range of developmental variables (e.g., domestic abuse, physical abuse, sexual abuse, parental divorce, family climate, etc.) and adult PSAP responding may help advance present knowledge regarding the impact of childhood adversity on psychological development. Aggr. Behav. 30:217–228, 2004. © 2004 Wiley-Liss, Inc.

Keywords: Point-Subtraction Aggression Paradigm (PSAP); lab-induced aggression; child physical abuse; Violent Experiences Questionnaire (VEQ)

Child abuse has been linked to many forms of psychological dysfunction [Carlson, 1991; Chermack and Walton, 1999; Henning et al., 1997; Jaffe et al., 1986; Malinosky-Rummell and Hansen, 1993; McCloskey et al., 1995; Widom, 1999a, b]. While interest in the impact of child physical abuse on violent tendencies among adults continues to grow [Chermack and

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Received 17 May 2002; amended version accepted 25 February 2003
Published online in Wiley Interscience (www.interscience.wiley.com). DOI: 10.1002/ab.20019

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Walton, 1999; Rosenbaum and O'Leary, 1981; Tremblay, 2000], the role of these experiences on laboratory-induced aggression has been left curiously unexplored. Contemporary studies have relied instead on uncontrolled retrospective and prospective findings that limit researcher ability to de-construct, quantify, and replicate the confluence of factors that potentially influence the expression of aggression among adults. While laboratory paradigms face their own external validity limitations, they do provide unique behavior samples that could contribute to our understanding of aggression triggers among high risk individuals such as child abuse victims. The present study focuses on the reactivity of young adults who report histories of recurrent physical abuse.

Behavioral scientists have found it challenging to identify the precise situational and environmental factors that mediate the acquisition and expression of aggressive behavior in children and adolescents. Ecological models [Belsky, 1980, 1993; Garbarino, 1985] have emphasized the complex interactions of individual, family, and sociocultural factors that cultivate, permit, and sustain patterns of family violence and child maltreatment. Retrospective accounts of child abuse will vary in accuracy and may often be found to represent an underestimate of the severity in those cases where court records or other documentation is available [Widom, 1997; Widom and Morris, 1997]. The case has been made [Widom, 2000] that retrospective analyses be balanced when possible by prospective studies that rely on historical records to establish abuse histories.

Retrospective self-reports of witnessed domestic violence and child abuse have provided consistent predictors of adult aggression [Chermack and Walton, 1999; Doumas et al., 1994; Fishbein, et al., 1993; Jaffe et al., 1986, 1988; Kalmuss, 1984; Laner and Thompson, 1982; Malinosky-Rummell and Hanson, 1993; O'Leary, 1988; Pollock et al., 1990; Patterson et al., 1989; Reidy, 1977; Rosenbaum and O'Leary, 1981; Sack and Mason, 1980; Tremblay, 2000]. Weeks and Widom [1998] found that two-thirds of violent male felons in one sample reported histories of child abuse.

Prospective data (cohorts where abuse histories can be verified by court records) germane to this family transmission of violence hypothesis has suggested that the link between childhood adversity and adult aggression may be more complex than indicated by retrospective studies [Horwitz et al., 2001; Widom, 2000; Widom et al., 1999; Widom and White, 1997]. The role of mediating factors such as victim gender, age, ethnicity, socioeconomic status, parental substance abuse, life stressors, and context in which the abuse occurs were emphasized in these analyses. In fact, McGloin and Widom [2001] demonstrated that a substantial subset (22%) of abuse and neglect victims actually showed evidence of resiliency to the effects of this childhood adversity.

It has also been challenging for researchers to distinguish between the effects of physical abuse and the witnessing of other forms of family aggression on child development. The comorbidity of physical abuse and domestic violence is particularly high. One survey estimated that 14% of college students witnessed at least one incident of parental physical aggression during upbringing [Henning et al., 1997]. Domestic violence has been reported in over half of the families where physical abuse has been found to occur [Carlson, 1991; McGibben et al., 1989], and paternal physical child abuse has been found in roughly 40% of families where mothers seek protective shelter from domestic abuse [O'Keefe, 1995; McClosky et al., 1995]. Chermack and Walton [1999] attempted to isolate and quantify the differential effects of “observing” versus “receiving” parental aggression by administering a modified version of the Conflict Tactics
Spearman correlations between frequencies of “observed” family (e.g., father-to-mother, mother-to-father, observed parents) and self-reported adult aggression in relationships (e.g., self-to-girlfriend/spouse, self-to-friend, self-to-stranger, self-to-boss, self-to-police officer, self-to-coworker, self-to-people in bars) among these 197 college men ranged from a modest .16 to .25 ($p < .05$ for all coefficients). Correlations between parental “received” (e.g., “being beat up, hit with a hard object, threatened with a knife or gun, or hurt by a knife or gun”) and adult relationship aggression ranged from .26 to .35 ($p < .01$ for all coefficients).

**Aggression measurement considerations.** Paper-and-pencil questionnaires such as the Life History of Aggression questionnaire [LHA: Coccaro et al., 1997], Buss-Durkee Hostility Inventory [BDHI: Buss and Durkee, 1957], Buss-Perry Aggression Questionnaire [BPAQ: Buss and Perry, 1992], Conflict Tactics Scale [CTS: Straus, 1979] or Overt Aggression Scale [OAS: Yudofsky et al., 1986] have provided popular psychometric indicators of malicious intent that may or may not predict the frequency of aggressive or violent acts.

The Point Subtraction Aggression Paradigm [PSAP: Cherek, 1981] provides an alternative lab-based procedure that quantifies the retaliatory responses of participants provoked by lost earnings at the hands of a fictional partner in a monetary-reinforced computer game. The retaliation in this game comes in the form of button presses that, despite delays in personal monetary gain, interfere with the efforts of a fictional partner to accrue earnings. Retaliatory responses are thus provoked by the illusion that an unseen partner has chosen for unspecified reasons to interfere with the participant’s success in the game. PSAP results are averaged over 25-minute sessions that vary in number from a low of one in a single day [Gerra et al., 1999] to a high of 78 over a 13 day period [Moeller et al., 1996]. The average study examines data collected from 12 to 18 individual sessions scheduled over about five days of testing. Violent parolees have been found to generate around 350 to 475 aggressive (Button B) responses per session which is double that found for control participants [Cherek et al., 1997]. PSAP responses tend to be variable across sessions ($SE = 200$), and aggregate counts from multiple sessions are often required to detect effects. Gender differences in PSAP responses appear to be minimal [Allen et al., 1996], with the exception of violent male parolees who have been shown to emit higher levels PSAP response rates than their female counterparts [Cherek et al., 2000].

The construct validity of laboratory-induced aggression procedures in general has been challenged [Tedeschi and Quigley, 1996], defended [Giancola and Chermack, 1998], and revisited [Tedeschi and Quigley, 2000] in recent years. PSAP responses have been found, however, to discriminate between participants with and without violent [Cherek et al., 2000; Cherek, et al., 1997], antisocial [Moeller, Dougherty, Lane, Steinberg, and Cherek, 1998; Moeller, et al., 1997], substance abuse [Kouri, Pope, and Lukas, 1999; Allen, Moeller, Rhoades, and Cherek, 1997], and even contact-sport athletic [Huang, Cherek, and Lane, 1999] histories.

**Present study.** The present study serves to test the strength of the relationship between childhood physical abuse and adult aggression among college students and under controlled laboratory conditions. The effects of recurrent childhood physical abuse on PSAP responding has not yet been investigated. The finding of significant family history effects under these restricted conditions (i.e., college students, brief screening questionnaire, limited laboratory sessions) would support the use of the PSAP to study a range of associated variables in cost-effective factorial designs.
METHODS

Participants

A total of 28 undergraduate college students aged eighteen or older were recruited to earn extra credit in their respective psychology classes at a Midwestern state university. The resulting sample was exclusively white because of the small minority enrollment at this institution. Participants were screened and selected from a psychology department pool on the basis of their scores on the Violent Experiences Questionnaire (Fig. 1) [VEQ: King, 2002]. A subset of 13 individuals (5 men and 8 women) in the screening pool were selected because they met the VEQ criterion for recurrent physical abuse described below. An additional 15 participants (7 men and 8 women) were selected randomly as a comparison group on the basis of their denial of similar experiences. The protocol followed in this study was approved by the university institutional review board, and informed consent was provided by all participants at the outset of the study. The consent form provided a general description of the study as an examination of the effects of family environment during upbringing on adult competitive drive.

Measures

Violent Experiences Questionnaire. The Violent Experiences Questionnaire [VEQ: King, 2002] provides simple face-valid estimates of the frequency of which the participant experienced or observed parental aggression from age 5 to 19. The VEQ is comprised of ten items selected to sample common acts of parental anger directed toward either the participant or a parent (usually the mother) during upbringing. Frequency counts (calculated from a nine-point rating scale) for five of these ten actions are calculated from retrospective participant accounts and used to generate subscale scores for family conflict (minor disagreements and heated verbal arguments) and aggression (pushing/shoving, striking/punching, and threats of physical violence during heated arguments). VEQ scores range from 0 to 365 indicating the number of average days per year during upbringing that the specific act was either Observed (between parents) or directly Experienced (delivered by either parent). All participants classified as high in Experienced Aggression reported nine or more incidents per year (over the 15 year retrospective recording period) of being pushed, shoved, struck, punched, or threatened with physical violence during heated arguments. King [2002] found that roughly 8% of college students (N = 515, M = 7.48, SEM = .33, Mdn = 0) and 16% of hospitalized chemical dependency inpatients (N = 189, M = 9.58, SEM = .70, Mdn = 0) met this criterion which distinguished an extreme subset of college students that were sufficient in size for experimental recruitment purposes. In this same study, VEQ Experienced Aggression scores were found to have acceptable six-week test-rest reliability, r (86) = .86, p < .001. Individuals generating elevated (>9 incidents per year) Experienced Aggression scores infrequently (<5%) recanted their recollections of parental abuse in retesting.

Point Subtraction Aggression Paradigm. Use of the PSAP [Cherek, 1981] software scoring program is licensed by the University of Texas Health Science Center. Participants are seated in an isolated room at a console (with “A” and “B” buttons) and a computer monitor which records the number of “A” button responses made during each 25 minute session. The instructions specify that both the participant and a (fictitious) partner, presumably interfaced at a identical console and monitor in an adjoining room, will be
rewarded ten cents for every 100 "A" button responses. The instructions further specify that players have the option of "B" button responses which subtract points from the partner and provide temporarily (500 seconds) protection from personal losses that would otherwise occur in the event of "B" button responses by the other player. Participants are told that

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**Violent Experiences Questionnaire (VEQ)**

This questionnaire is designed to assess the degree of family violence experienced by individuals and their mothers during upbringing. Please use the designated frequency scale to complete the grid presented below. Place a letter (A through I) in each of the open blocks that correspond to different ages in your upbringing.

<table>
<thead>
<tr>
<th>Frequency Index of Incident</th>
<th>VIOLENCE DIRECTED TOWARD YOUR MOTHER</th>
<th>VIOLENCE DIRECTED TOWARD YOU</th>
</tr>
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<tbody>
<tr>
<td>A) never happened</td>
<td></td>
<td></td>
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<tr>
<td>B) happened only once</td>
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<td></td>
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<td>C) happened only twice</td>
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<tr>
<td>D) happened less than five times</td>
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<td>E) happened about once a year</td>
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<td>F) happened about twice a year</td>
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<td>G) happened about once a month</td>
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<td>H) happened about once a week</td>
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<tr>
<td>I) happened more than once a week</td>
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**TARGET ACT**

<table>
<thead>
<tr>
<th>Minor disagreement</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
<th>17-19</th>
<th>5-8</th>
<th>9-12</th>
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<tr>
<td>Heat verbal arguments</td>
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<td>Heated verbal arguments with threats of physical violence</td>
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<td>Pushing and shoving</td>
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<td>Striking and punching</td>
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<td>Authorities summoned to home</td>
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<td></td>
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<tr>
<td>Parent arrested</td>
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<td>Physician required as result of a fight</td>
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<tr>
<td>Lasting physical injury (such as broken bones) as a result of a fight</td>
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<td>Murder of your mother</td>
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Fig. 1. Violent Experiences Questionnaire (VEQ)
points subtracted from them will be added to their partner’s total, but personal “B” button responses will only subtract points and money from the partner with no personal gain. Participants are told that this unshared partner incentive for “B” button responses was determined by a coin toss prior to the session. The PSAP software program then provides a controlled level of provocation or point subtractions that are attributed to the “B” button responses of the fictitious partner. PSAP researchers have relied on cumulative Button “B” responses of the participant as a primary measure of aggression.

Overt Aggression Scale. The OAS [Yudofsky et al, 1986] is a 16-item rating scale that quantifies individual penchants to aggress either verbally or physically against objects, self, or others. The OAS delineated aggressive acts into four categories with scores ranging from 0 to 16 (four dichotomous items for each category). Item examples for each category include “makes clear threats of violence toward others or self” (verbal aggression), “breaks objects, smashes windows” (physical aggression against objects), “mutilates self, causes deep cuts, bites that bleed, internal injury, fracture, loss of consciousness, loss of teeth” (physical aggression against self), and “attacks others, causing severe physical injury” (physical aggression against others). The OAS items were shown to have internal consistency ($r = .87$) and validity in predicting physical aggression against objects ($r = .86$), physical aggression against self ($r = 1.0$), and physical aggression against others ($r = .17$) for a sample of 21 adult intensive care psychiatric inpatients. The OAS will be used as a secondary paper-and-pencil dependent measure of aggressiveness for purposes of the present study.

Procedure. Approximately 150 potential participants completed the VEQ and OAS during screening to assess their eligibility for a study of the effects of domestic violence during upbringing on adult performance on a computer task. Eligible individuals (those with Experienced Aggression scores equal to 0 or exceeding 9) were then contacted and scheduled for two 25-minute PSAP sessions on a single day and time (usually late morning or early afternoon) of their convenience. Successive PSAP sessions were separated by a five to ten minute rest period, and all participants were provided monetary compensation at the conclusion of the two sessions. Participants were debriefed before they left and the deception regarding the fictional opponent was disclosed. OAS scores were not examined until participant selection and PSAP testing was complete.

RESULTS

Descriptive Statistics

Table I provides descriptive statistics for the VEQ and PSAP variables examined in the present study. As expected, groups with and without reports of recurrent childhood physical threat or abuse were most strongly differentiated by the Experienced Aggression independent variable, $F (1,24) = 33.34, p < .0001$. A threshold score of 9 or greater was used to define the independent variable examined in this study, but most of the participants reported much higher frequencies of the target behavior during upbringing (i.e., 9.9, 10.8, 12.8, 17.7, 28.2, 42.0, 54.9, 78.1, 110.9, 137.7, 156.0, 183.9, and 201.1). The gender balance for the high (7 women, 6 men) and low (8 women, 7 men) Experienced Aggression groups was similar.

Analyses of variance indicated that the two groups were distinguished by their Experienced Aggression scores and level of exposure to parental conflict during upbringing. Significant group differences were found for Observed Conflict, $F (1,24) = 10.62, p = .003$, Observed Aggression, $F (1,24) = 5.32, p = .03$, and Experienced Conflict, $F (1,24) = 29.44, p < .0001$. 


Men and women reported similar levels of domestic discord (Observed subscores combined) during upbringing, $F(1,24) = .04, p = .84$. Gender differences were not found for Observed Conflict and Observed Aggression scores. Men did report higher Experienced Aggression scores ($M = 129.27, \text{SEM} = 35.81$) than women ($M = 49.69, \text{SEM} = 12.84$), $F(1,11) = 5.51, p = .039$.

All comparison group participants had Experienced Aggression scores of zero. Participants reporting Observed or Experienced Aggression were also found to identify elevated levels of Observed Conflict and Experienced Conflict ("minor disagreements" and "heated verbal arguments"), $r = .61$ and $.77$ respectively, $p < .001$. There was also a strong and anticipated relationship between Experienced Aggression and exposure to domestic abuse as manifested in Observed Conflict ($r = .47$, $p < .05$) and Observed Aggression ($r = .58$, $p < .001$) scores. PSAP responding was predicted by Experienced Conflict ($r = .51$, $p < .01$), Observed Conflict ($r = .47$, $p < .05$), and Observed Aggression ($r = .49$, $p < .01$) scores. One explanation for the relatively weak correlation between PSAP responding and Experienced Aggression ($r = .40$, $p < .05$) was the nonlinear bimodal distribution (only high and low scores) of the latter distribution as a function of the selection criteria. OAS and Experienced Aggression ($r = .51$, $p < .01$), Experienced Conflict ($r = .47$, $p < .05$), and Observed Aggression ($r = .40$, $p < .05$) scores were closely related.

### PSAP Procedural Controls

The PSAP provides a random level of provocation perpetrated by an assumed opponent seated in another room. Debriefing questions indicated that the deception was effective in all but two cases where the participants indicated some suspicion about the existence of the opponent. As intended by the procedure, group differences in level of PSAP earnings, $F(1,24) = 1.38, p = .25$, or level of random provocation, $F(1,24) = 1.47, p = .24$, were not found.
Gender, Time, and Interaction Effects

Gender differences between participants with and without reported histories of recurrent parental physical abuse were not found for total PSAP “B” Button responses, \( F(1,24) = 0.92, p = .35 \). PSAP responses were averaged over the two sessions in all analyses. Significant differences in PSAP responding between the two sessions were not found, \( F(1,24) = 4.06, p = .055 \). There was a trend for PSAP responding to diminish over multiple sessions which has been found in other studies. Similarly, PSAP responses did not appear to vary as a function of the time by gender, \( F(1,24) = 2.95, p = .10 \), time by group, \( F(1,24) = 3.77, p = .06 \), or group by gender, \( F(1,24) = 1.91, p = .18 \), interactions. The time by group by gender interaction was also not significant for PSAP responding, \( F(1,24) = 0.60, p = .44 \). Gender and gender by group interaction differences were not found for OAS scores.

Family History Group Differences

Participants generating Experienced Aggression scores of 9 or greater were substantially higher \( (d = 2.1) \) in PSAP responding than comparison group members with scores of zero, \( F(1,24) = 4.72, p = .04 \). Six of the 13 (46%) participants reporting physical abuse histories generated PSAP responses in excess of 400 which was the average found previously for violent parolees. None of the 15 control participants responded at this level of aggressiveness. Significant differences \( (d = 1.1) \) between participants with and without reports of recurrent physical abuse were also found in OAS scores, \( F(1,24) = 7.03, p = .01 \). As noted previously, OAS scores were closely associated with VEQ Observed Aggression, Experienced Conflict, and Experienced Aggression, but not PSAP responding \( (r = .06, p > .05) \).

Covariance Analyses

The present study generated groups that were differentiated on the basis of scores derived from the VEQ Experienced Aggression scale. Large differences between the two groups were thus assured in the extent to which they experienced “pushing, punching, striking, shoving, heated verbal arguments, and/or threats of physical violence” during upbringing. Participants in the high group experienced an average of one of these parental behaviors every six weeks during the course of upbringing. Experienced Aggression score effects could not, however, be easily distinguished from the potential impact of Observed Conflict and Observed Aggression incidents. Six of the 13 (46%) high Experienced Aggression group members also described significant exposure to observed conflict and aggression during upbringing (as opposed to 0% in the comparison group). These VEQ variable intercorrelations suggest that group differences are most appropriately attributed to aggregate family discord rather than unitary physical threat and/or abuse as measured by the Experienced Aggression scale. In fact, group differences in PSAP responding were eliminated when variance associated with the VEQ Observed Conflict, Observed Aggression, or Experienced Conflict variables were covaried from the analysis.

Additional Analyses

A small subset \( (n = 6) \) of participants reporting combined elevations in both experienced and observed aggression were compared to the group \( (n = 15) \) without any reported history of either form of abuse history. This small combined group generated aggressive responses that were substantially higher \( (M = 546.8, SEM = 214.3) \) than the controls \( (M = 149.4, \)
SEM = 38.6), F (1,19) = 8.12, p = .01. PSAP response differences between the subset of participants (n = 7) reporting recurrent physical abuse without witnessing domestic abuse and this same control group who reported unremarkable family histories were also statistically significant, F (1,20) = 4.66, p = .04.

DISCUSSION

The present study focused on the relationship between recurrent parental physical abuse during upbringing and adult PSAP responding. College students with and without histories of recurrent parental physical abuse were found to differ substantially (d > 2 SDs) in their response to the PSAP procedure, and almost half of the high-risk participants (as opposed to 0% of the comparison group) generated in excess of the 400 aggressive responses which was the average found previously for violent parolees. OAS group differences were also considerable (d > 1 SD). These large group differences were apparent despite the high level of variability observed in this and most other PSAP studies.

Chermack and Walton [1999] found modest correlations (.26 to .35) between “received” aggression during upbringing and self-reported adult relationship aggression within their sample of 197 college men. VEQ Experienced Aggression scores in the present study provided an equally sensitive, if not stronger, predictor of PSAP (r = .40, p < .05) and OAS (r = .51, p < .01) forms of aggression. Evidence of gender or gender by group interaction effects on PSAP or OAS measures was not found in the present or prior research [Allen et al., 1996]. The relationship between recurrent parental physical abuse and adult aggression appeared to be robust enough for detection even among this small college sample exposed to this brief and highly controlled lab procedure which has been challenged previously for its construct validity [Tedeschi and Quigley, 1996, 2000]. The present results appear to contribute to a body of research which demonstrates the predictive validity of the PSAP in discriminating between individuals at high versus low risk for adult aggressive behavior.

Roughly 9% of the college students screened for participation reported recurrent physical abuse histories which seemed consistent with other estimates [Brown et al., 1998; King, 2002]. Domestic abuse is also thought to occur within the families of about half of the children identified as physical abuse victims [Carlson, 1991; McGibben et al., 1989]. VEQ Observed Aggression scores in the present study were indeed elevated (> 9, one or more incidents every six weeks) among 46% of the participants identified with recurrent parental physical abuse histories. Comparison participants reported neither experienced nor observed family aggression during upbringing. Incidents of Experienced Conflict were widely distributed across the two comparison groups. Experienced Conflict scores in excess of 52 (i.e., an argument a week) were found in 40% of control and 85% of target participants.

The dual physical and domestic abuse experienced by about half of the target group posed interpretive challenges that are common in this line of research. Studies of family history variables inevitably rely on correlation analyses that provide predictive, but not etiologic, information about the phenomenon in question. Aggregate family discord during upbringing, as measured by the VEQ, appeared to provide an excellent predictor of adult PSAP responding in the present study. Indeed, the subset of participants reporting combined experienced and observed aggression generated PSAP responses that were more than three standard deviations higher than the comparison group that reported unremarkable family histories. PSAP response differences between controls and participants reporting recurrent
physical abuse without domestic abuse were also statistically significant. Results from such small samples would require replication to determine whether or not dual VEQ Observed and Experienced Aggression was an essential element in the prediction of elevated PSAP responding.

The Violent Experiences Questionnaire provided a brief screening inventory with simple scaling that proved useful in the prediction of both behavioral (i.e., PSAP) and attitudinal (i.e., OAS) indicators of adult aggression. VEQ test-retest reliabilities have been found to be high, and thresholds for the recurrent physical abuse classification were made to assure that roughly 10% of the college sample would qualify for inclusion. This rate seemed generally consistent with national prevalence estimates and assured the recruitment of a high-risk college group distinguished by true recurrence (at least once every six weeks for 15 years) of extreme targeted experiences.

In conclusion, scores from a brief family history questionnaire have been shown to provide strong predictors of laboratory-induced aggression among college students. The VEQ is typically completed in a matter of minutes, and strong associations were found with aggressive responding generated from only two PSAP sessions. It could also be speculated that college students represent a relatively resilient and adaptive subset of family abuse victims. These observed relationships may prove even stronger among samples drawn from the general public. The PSAP appears to provide a practical but controlled measure of adult aggression that seems especially sensitive to family history experiences. Larger factorial studies may now follow that include a range of developmental variables (e.g., domestic abuse, physical abuse, sexual abuse, parental divorce, family climate, etc.) which can be systematically explored using the PSAP.

REFERENCES


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