

Title: Early childhood exposure to parental nudity and scenes of parental sexuality ('primal scenes'): an 18-year longitudinal study of outcome

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INTRODUCTION

Increasing numbers of academic researchers and clinicians have suggested that behaviors such as exposure of a child to parental nudity or scenes of parental sexuality ("primal scenes") constitute subtle forms of sexual abuse that previously have gone unrecognized (Atteberry-Bennett, 1987; Bolton, Morris and MacEachron, 1989; cf. Bottfield, 1992; Conte, cited in Best, 1990; Haynes-Seman and Krugman, 1989; Kritsberg, 1993; Krug, 1989; Lewis and Janda, 1988; Sroufe and Fleeson, 1986). Such subtle sexual abuse - referred to as syndromes like "maternal seductiveness," "emotional incest syndrome," "emotional sexual abuse," "covert sexual abuse," and "sexualized attention" - may also include less easily defined behaviors such as parent "flirtatiousness," or inappropriate and excessive displays of physical affection (cf. Sroufe and Fleeson, 1986).

As Okami (1995) suggested, however, such concern is not new. That is, although these "syndromes" have recently entered the discourse on sexual abuse, some of the behaviors that constitute them have long held positions in the pantheon of improper parenting practices. For example, two decades ago, Esman (1973) observed that just one of these practices - exposure of the child to primal scenes - has been indicted in 75 years of psychoanalytic, psychiatric, and psychological literature as the primary etiologic agent in virtually every form of child and adult pathology. However, Esman concluded that, "One is moved to wonder whether we are here confronted with one of those situations in which a theory, by explaining everything, succeeds in explaining nothing" (pp. 64-65).

In the present article we report results of the first longitudinal investigation of long-term correlates of exposure to parental nudity and primal scenes. Behaviors such as parent flirtatiousness and inappropriate displays of physical affection were not examined because at the time the study was conceived (early 1970s) few, if any, commentators considered such behaviors to be seriously problematic.

Exposure to Parental Nudity

Data bearing on the question of long-term outcomes of the variables in question are exceedingly scant, although speculative hypotheses - often framed as authoritative pronouncements of fact - are easy to come by (Okami, 1995). For example, only three empirical articles have addressed the issue of childhood exposure to parent and other adult nudity: Lewis and Janda (1988); Oleinick et al. (1966); and Story (1979). In several other cases, descriptive, self-report studies of social nudist or other groups practicing casual nudity have been conducted without comparison groups (Berger, 1977; Hartman et al., 1991; Johnson and Deisher, 1973; Smith and Sparks, 1986). In general, the tone of all

of this work is antialarmist, representing childhood exposure to nudity as benign.

Apart from these tentative attempts to collect data, writings on this topic consist of theory-driven clinical opinion and commentaries by child-rearing specialists. In contrast to the above-mentioned empirical work, the clinical writings typically reflect the notion that exposure to nudity may be traumatic as a result of (i) premature and excessive stimulation in a manner controlled by the adult, leaving the child feeling powerless; (ii) the child's unfavorable comparison between his or her own anatomy and the adult's; or (iii) the intensification of Oedipal desires and consequent anxiety (Baruch, 1959, also cited in Lewis and Janda, 1988, p. 350; DeCecco and Shively, 1977; Justice and Justice, 1979; Peltz, 1977; Solnit, 1977; Spock, 1945).

Given the vehemence with which clinicians and child-rearing specialists often condemn childhood exposure to parental nudity, it is paradoxical that their dire predictions are not supported by the (scant) empirical work that does exist. Findings are at worst neutral or ambiguous as to interpretation, and there is even the implication of possible positive benefits in these studies (particularly for boys) in domains such as self-reported comfort with physical affection (Lewis and Janda, 1988) and positive "body self-concept" (Story, 1979). Although these investigations are methodologically limited, their results are consistent with the view of a smaller group of child-rearing specialists and other commentators who have stressed the potential benefits to children of exposure to nudity in the home, in areas such as later sexual functioning, and capacity for affection and intimacy (cf. Finch, 1982; Goodson, 1991; Martinson, 1977; Mead, cited in Goodson, 1991). Although some of these writers (cf. Ellis, cited in Goodson, 1991) make reference to the cross-cultural ubiquity of childhood exposure to parental nudity - although objecting to alarmist positions taken by Western commentators who fail to provide supportive data - the cross-cultural record is not generally explicit on the question of actual exposure of children to parental nudity. It does, however, present a strong case for the universality of parent-child cosleeping or room sharing (e.g., Barry and Paxton, 1971; Caudill and Plath, 1966; Gardner, 1975; Lozoff et al., 1998; Morelli et al., 1992; Stephens, 1972; Whiting, 1964; Whiting and Edwards, 1988). It may tentatively be inferred that under such conditions large numbers of the world's population of children are exposed to parental nudity. Finally, a third group of writers stress the importance of the context in which childhood exposure to nudity takes place, insisting that outcomes are mediated by such contextual variables as gender, age of child, family climate, cultural beliefs, and so on (Okami, 1995; Okami et al., 1997).

Exposure to Scenes of Parental Sexuality (Primal Scenes)

Freud and his followers chose the term "primal scenes" to refer to visual or auditory exposure of children to parental intercourse, and subsequent fantasy elaborations on the event (Dahl, 1982). Despite the identification of such exposure by psychoanalysts and others as uniquely dangerous to the mental health of children, there are, once again, scant empirical data bearing on effects of primal scene exposure. We could locate only one prevalence study (Rosenfeld et al., 1980) and two studies of initial response and

subsequent adult functioning (Hoyt, 1978, 1979). Of course, numbers of case studies exist, including a very rich psychoanalytic literature describing putative consequences of exposure to primal scenes. These writers have explained the traumatogenic issues by referring to "a) the erotically charged character of the exposure, resulting in undischarged libidinal energy and concomitant anxiety; b) the sadomasochistic content of fantasy misinterpretation of the event; and c) the exacerbation of oedipal desires and resultant castration anxiety or other fears of retaliation" (Okami, 1995, p. 56).

Again, however, the few attempts to validate these notions empirically do not support predictions of harm. For example, Rosenfeld et al. (1980) concluded that the extent of psychological damage has been exaggerated. These investigators arrived at their conclusion by two routes: First, exposure to primal scenes appeared to be rather prevalent, with the most conservative estimates as high as 41%. Rosenfeld et al. suggested that given this frequency of occurrence, factors other than the primal scene qua primal scene must be responsible for trauma when it occurs. Second, parents reported largely neutral and noncomprehending responses from their small children [Mathematical Expression Omitted]. On the other hand, some children appeared to respond with amusement, giggling, and clear comprehension. Thus, the rather sinister portrait emerging from psychoanalytic literature was largely absent from these parent reports.

Hoyt (1978, 1979) queried college students about their childhood exposure to scenes of parental sexuality. He found that although these students reported that their exposure had resulted in largely negative emotional responses at the time, the exposed group did not differ from the nonexposed group on self-report ratings of "current happiness" or frequency of and satisfaction with current sexual relations. Moreover, these subjects recalled exposure primarily at prepubescent and pubertal ages. Given that the mean ages for first exposure reported by parents in the Rosenfeld et al. (1980) studies were between 4 and 6, it is conceivable that subjects in Hoyt's investigations were not reporting their first actual exposure to scenes of parental sexuality. Therefore, findings of exposure at peripubertal ages are of limited value in assessing outcome of exposure to primal scenes generally, because with a few exceptions, primal scenes have been defined in the literature as events of early childhood. That is, responses such as "castration anxiety" and "Oedipal desires" are said to be of most critical importance in the lives of very young children.

The Present Study

Despite the lack of empirical support, psychoanalytic and family systems theorists continue to stress the potential for harm in exposure to parental nudity and primal scenes. Therefore, longitudinal outcome data are important in beginning to resolve this question. In the present exploratory study, 204 families were enlisted during the mid-1970s as part of a multidisciplinary investigation of emergent family life-styles (UCLA Family Life-styles Project, cf. Weisner and Garnier, 1992). Children were followed from birth to the current wave of data collection at age 17-18.

Because there was no indication in the literature that either of the target behaviors is harmful, we hypothesized no deleterious main effects of early childhood exposure either to nudity or primal scenes. We reasoned instead that if harm was associated with exposure to these events, such harm would result from interactions with specific ecological variables.

One such variable might be the sex of the child. Theories based in evolutionary biology, cognitive science, and ethology predict sex differences in psychological mechanisms mediating sexual behavior in humans (Abramson and Pinkerton, 1995; Buss, 1994, 1995; Symons, 1979, 1995; Tooby and Cosmides, 1992). Although most evolutionary theorizing about human sex differences in sexuality has focused on reproductively mature individuals, sex differences in sexuality-related psychological response also have been found among children and early adolescents (Gold and Gold, 1991; Knoth et al., 1988; Sorenson, cited in Kirkendall and McBride, 1990). In their study of adolescents ages 12-18 who were asked to recall their earliest sexual arousal and sexual feelings, Knoth et al. (1988) reported outcome correlates markedly congruent with evolutionary theory. Specifically, these investigators found that girls, as compared with boys, reported later onset of arousal, less frequency of arousal, less intense arousal, less distracting arousal, and were less likely to have experienced first arousal in response to visual cues. In the study by Gold and Gold (1991), men, relative to women, reported that their boyhood fantasies were more explicit and focused on the sexual acts themselves, more likely to have resulted from visual cues, more likely to have resulted in positive rather than negative affect, and that they were first experienced at an earlier age. Thus, sex differences in sexuality-related psychological responses appear to be present at least from preadolescence. They may also be present far earlier than previously supposed. We explored this possibility in the present study.

Outcome measures were chosen to reflect long-term adjustment in a number of areas of concern to clinicians. These areas included: (i) self-acceptance; (ii) relations with parents, peers, and other adults; (iii) drug use; (iv) antisocial and criminal behavior; (v) suicidal ideation; (vi) social "problems"(3) associated with sexual behavior (getting pregnant or having gotten someone pregnant, and getting an STD); and (vii) quality of sexual relationships, attitudes, and beliefs.

METHOD

Participants

The UCLA Family Lifestyles Project (FLS) is a longitudinal investigation founded in 1973 to examine emergent family life-styles of that era (cf. Eiduson, 1983; Weisner and Garnier, 1992; Weisner and Wilson-Mitchell, 1990). Fifty "conventional" and 154 "nonconventional" families, matched for ethnicity and socioeconomic status (SES) according to Hollingshead's four-factor model (Hollingshead, 1975), were enrolled prior to the birth of the target child. All parents were of European American descent and were living in the State of California when recruited. The parents ranged in age between 18 and

32 years at the time of enrollment, and the families fell between the 20th and 90th national percentile of SES and education status.

Conventional families were defined as those in a "married couple relationship" and were referred by a randomly selected sample of obstetricians from the San Francisco, San Diego, and Los Angeles areas. Nonconventional families were recruited through physician referral, birthing office records, alternative media announcements, and referral by already enrolled participants. Nonconventional family forms included intentional single mothers, couples living in communes or other group-living situations, and "social contract" couples. During the most recent wave of data collection, target children were between the ages of 17 and 18 years. Approximately equal numbers of boys and girls participated, although the precise number varied somewhat with each wave of data collection. Attrition for the FLS sample has been minimal however, with data between 95-98% complete for the first 18 years.

Data Collection

Data were collected using multiple methods at frequent intervals during the first 6 years, and less frequent intervals for the subsequent 6 years. Data were collected through FLS staff home visit observation and evaluation, parent and child interviews using FLS measures, FLS questionnaires, teacher report, independent and school psychologists' observations and evaluations, and standard measures including objective and projective tests administered by school psychologists and independent psychologists. No data were collected after 12 years until the current wave of data collection at year 17-18. For the current study, only 17-18-year outcome data were analyzed.

Predictor Variables

To determine extent of exposure to nudity and primal scenes, parents were asked two questions in a face-to-face interview at child's age 3: "Does mother (father) go nude in front of child?" and "Does mother (father) bathe or shower with the child?" The questions were followed by 4- and 5-point Likert scales anchored by 1 (never) and 4 (regularly) or 1 (never) and 5 (daily). At child's age 6, parents were asked whether they (i) discouraged family nudity, (ii) felt OK about nudity within the family but not with others, or (iii) encouraged nudity within the family and with others.

Exposure to primal scenes was measured by two items. At child's age 3, parents were asked whether their child had ever seen them "have sex." They were offered a 4-point Likert response format anchored by 1 (never) and 4 (regularly). At child's age 6, parents were again asked if their child had observed them having intercourse, and again offered a 4-point scale anchored by 1 (no) and 4 (regularly). Because of shifts in the identity of mothers' male partners for some of the families over the first 6 years, and the greater frequency of fathers working outside of the home and being unavailable for interview, missing data for fathers approach unacceptable levels. Therefore, only mothers' data were used for these analyses. However, whenever data for fathers existed, correlation with

mothers' data was typically high (e.g., $n = 69$, $r = .80$).

Scores for individual variables were standardized [Mathematical Expression Omitted] and combined so that the two time points (age 3 and age 6) were given equal weight.

Control Variables

Control variables included participant child's sex, family SES, and family climate (troubled/nontroubled status, pronaturalism, sexual liberalism/conservatism). Families participating in the FLS project differed as to domestic arrangements, stability, values and beliefs, and degrees of commitment to those values and beliefs. On the basis of intensive case-by-case examination of family life-style, a typology of family types was developed and subjected to discriminant analysis. This analysis assigned 83% of families to the same type identified qualitatively (Weisner and Wilson-Mitchell, 1990). One of these types was termed "changeable/troubled" in the original FLS reports, and simply "troubled" in the current study for use as a control variable. Thirty-one families (16.4%) were assigned to this category qualitatively. This type was characterized by unstable family composition (defined as frequent changes of mothers' male partners and/or frequent residential changes); low commitment to whatever were the stated family values; and typically disturbed parent relations or alcohol/substance abuse and other pathologies.

At the time of enrollment, parents were assessed as to shared family values. A number of items were initially generated regarding child-rearing, the environment, and human relationships. The construct addressed by these items was termed "pronaturalism" by FLS investigators (cf. Weisner et al., 1983). Varimax rotation was used to derive three factors with high loadings and good commonalities (Weisner, 1986). These factors described belief in the use of natural materials, medicines, and food; a de-emphasis on materialism and possessions; a "warm and emotionally expressive" style emphasizing honesty, intimacy, emotionality, and physical warmth and closeness; belief in "natural" child-rearing practices such as breastfeeding and close parent-infant contact; a loose, laid-back family style emphasizing low conflict, little punishment and aggression, conforming parenting style to the temperament of the child, and belief in the wholesomeness of perceived styles of pre-industrial peoples who are assumed to be more "naturally human." (For an interesting discussion of the fallacy of the "naturally human" assumption, see Buss, 1994, p. 17.) The construct "pronaturalism" was measured at child's age 3, 6, and 17-18 years and then averaged.

"Sexual liberalism/conservatism" was measured through aggregate rating by FLS staff interviewer of mother's responses to a series of items related to attitudes toward sexuality. This measure was administered at child's age 3. "Conservative" attitudes included low tolerance for childhood masturbation and sex play, restrictive attitudes toward nudity in the home (independent of actual presence of nudity in the home), highly unfavorable attitudes about children viewing parental intercourse (independent of children actually viewing intercourse), an unwillingness to acquaint children with the "facts of life," and "traditional" beliefs about the notion of gender equality. "Liberal" attitudes included

tolerance for masturbation, sex play, and family nudity; more permissive attitudes about children viewing intercourse; a willingness to impart sex education; and "progressive" attitudes about gender equality.

Criterion Variables

Self-acceptance, and relations with peers, parents, and other adults, antisocial behavior, and substance use were all measured using subscales created for the UCLA Adolescent Growth study (cf. Huba and Bentler, 1982; Newcomb et al., 1983). In the case of self-acceptance and relations with peers, parents, and other adults, the participants were given two columns of statements, one affirmative and the other negative, and a 5-point Likert scale anchored by 1 (the answer on the left is true for sure) and 5 (the answer on the right is true for sure). The varied direction of response choices was counterbalanced. Participants were asked to circle the number that best described "the way you are most of the time." Each subscale consisted of four items.

In the case of antisocial behavior, participants were asked how many times over the previous 6 months they had engaged in various specific instances of petty or felony theft, fighting, assaults, and vandalism. In the case of substance use, participants were first asked how many times over the previous 6 months they had used a wide variety of nonprescription, prescription, and illicit substances. They were also asked how many times over the previous 6 months they had been involved in accidents while using these substances.

Quality of sexual relationships, experiences of pregnancy and STD, and suicidal ideation were addressed using face-valid, FLS self-report measures. Suicidal ideation was measured in binary fashion by a single item asking whether or not the participant had contemplated suicide during the previous 6 months. Regarding STD transmission and pregnancy, the participants were asked whether the event happened in the past 6 months, and, if it occurred, whether it was experienced as positive or negative. Participants were also asked to rate the effect that the event had on their life using a four-column format (no effect, some effect, moderate effect, and great effect). Quality of sexual relationships was addressed by items asking whether the adolescent had fallen deeply in love, begun dating a new boyfriend/girlfriend, or broken up with a boyfriend/girlfriend.

RESULTS

The correlations among the predictor variables appear in Table I. To reduce the overall number and redundancy of the analyses, the drug use (excluding alcohol and tobacco) and "antisocial behavior" items were subjected to separate principal components analyses with varimax rotation. The number of factors was determined by the eigenvalue [greater than] 1.0 rule and examination of the Scree plots. As the goal of the procedure was data reduction, the issue of whether the resulting factors were substantively interpretable was secondary. The generated factor scores were then used as outcome measures representing drug use and antisocial behavior.

Each of the continuous outcome measures was subjected to a standard multiple regression analysis. The model included the predictors indicated above and interaction terms for Primal Scene Exposure x Sex and Nudity x Sex. For binary outcome measures (been sexually active, been suicidal, been in an accident involving alcohol or drugs) logistic regression was utilized.

Because this study involved the examination of a large number of outcomes, we decided that some attempt to control Type I error rate was [TABULAR DATA FOR TABLE I OMITTED] necessary. The Bonferroni method (using the number of regressions) specified a critical p value of .0017. However, it was decided that this was perhaps too conservative as the outcomes are not for the most part independent. Thus, we selected $p = .0025$ as the critical value. Coefficients significant at 0.0025 [less than] p [less than] 0.05 were considered as trends only.

The principal components analyses yielded five drug-use factors (72% explained variance) and four antisocial behavior factors (58% explained variance). The drug-use factors are hence referred to as Hard Drugs - highest loading items: (i) Sedatives, minor tranquilizers, (ii) Marijuana, hashish, psychedelic mushrooms, LSD, "Ecstasy"; (iii) PCP, major tranquilizers, other psychedelics, inhalants; (iv) Amyl nitrate, amphetamines, other narcotics; and (v) Heroin, barbiturates, cocaine, inhalants. The antisocial behavior variables are hence labeled Antisocial behavior: theft, vandalism, felonies, and fighting.

Due to the extremely low dropout rate nearly all subjects provided outcome data. As such, the ns for each analysis range only from 181 to 189. In general, we deemed the data appropriate for multiple regression; no major violations of the assumption of the method were apparent. The inclusion of the interaction terms did reduce tolerance but not to an unacceptable level. Descriptive statistics for continuous predictor and outcome variables appear in Table II and the distribution of binary predictor and outcome variables appears in Table III.

Frequencies for exposure to the main predictor variables are as follows: For exposure to primal scenes, 63 (32%) children were exposed (boys $n = 34$, girls $n = 29$), whereas 133 (68%) children were not exposed. For exposure to parental nudity, exposure was more normally distributed so a 4-point continuous measure was used. Collapsing points 2 and 3, 49 (25%) children were not exposed to any parental nudity, 86 (44%) (boys $n = 41$, girls $n = 46$) were exposed with moderate frequency, and 61 (31%) children (boys $n = 34$, girls $n = 27$) were exposed frequently. Data for 7 children were not included in the analyses to follow due to unacceptable levels of missing data.

Table IV displays the results for continuous outcome measures in the 18-year follow-up, and Table V displays results for the binary variables.

There were no significant main effects of the predictor variables. A significant crossover interaction indicated that for boys, exposure to primal scenes predicted reduced likelihood

of having gotten an STD, or having gotten someone pregnant. The reverse was the case for girls, who were significantly more likely to have gotten an STD or to have become pregnant [ILLUSTRATION FOR FIGURE 1 OMITTED]. This finding was independent of the extent of sexual behavior engaged in.

[TABULAR DATA FOR TABLE II OMITTED]

A number of trends were found that were significant at p [less than] 0.05, which was above the cutoff point for significance after the Bonferonni correction. Exposure to parental nudity predicted lower likelihood of sexual activity in [TABULAR DATA FOR TABLE III OMITTED] [TABULAR DATA FOR TABLE IV OMITTED] [TABULAR DATA FOR TABLE V OMITTED] adolescence, but more positive sexual experiences among that group of participants who were sexually active. Exposure to parental nudity also predicted reduced instances of petty theft and shoplifting, but this was mediated by a sex of participant interaction indicating that this effect was attenuated or absent for women. Similarly, exposure to parental nudity was associated at the level of trend with reduced use of drugs such as marijuana, LSD, Ecstasy, and psychedelic mushrooms, but again, this effect was mediated by a significant sex of participant interaction suggesting that this effect was experienced primarily by men. Indeed, exposed women were very slightly more likely to have used these drugs.

At the level of trend, exposure to primal scenes was associated with higher levels of self-acceptance and improved relations with adults other than parents. There was also a trend for women exposed to primal scenes to have been less likely to use drugs such as PCP, major tranquilizers, inhalants, and psychedelics other than LSD or mushrooms.

Although a number of nonsignificant trends emerged for control variables, the only significant finding was that family sexual liberalism was associated with sexual liberalism at adolescence. Squared semipartial correlations for the predictor variables are displayed in Table VI. In no [TABULAR DATA FOR TABLE VI OMITTED] case was explained variance greater than 5.7% and for most variables the figure was less than 1%.

DISCUSSION

This study, using a longitudinal design, is the first to examine long-term correlates of early childhood exposure to parental nudity and primal scenes. Consistent with the cross-sectional retrospective literature (and with our expectations), no harmful main effects of these experiences were found at age 17-18. Indeed, trends in the data that were significant at p [less than] 0.05 but did not reach significance following the Bonferonni correction indicated primarily beneficial correlates of both of these variables. Exposure to parental nudity was associated with positive, rather than negative, sexual experiences in adolescence, but with reduced sexual experience overall. Boys exposed to parental nudity were less likely to have engaged in theft in adolescence or to have used various psychedelic drugs and marijuana.

In the case of primal scenes, exposure was associated with improved relations with adults outside of the family and with higher levels of self-acceptance. Girls exposed to primal scenes were also less likely to have used drugs such as PCP, inhalants, or various psychedelics in adolescence. The one note of caution was sounded by a significant sex of participant interaction indicating that males' exposure to primal scenes was associated with reduced risk of social "problems" associated with sexuality, while the opposite was the case for females. Women in our study who had been exposed to primal scenes reported increased instances of STD transmission and pregnancy. All findings were independent of the effects of SES, sex of participant, family stability, pathology, "pronaturalism," and beliefs and attitudes toward sexuality.

Taken as a whole then, effects are few, but generally beneficial in nature. Thus, results of this study add weight to the views of those who have opposed alarmist characterizations of childhood exposure both to nudity and incidental scenes of parental sexuality. Moreover, although the association of higher instance of sexually transmitted diseases and adolescent pregnancy among young women exposed to primal scenes might appear at first glance to represent harm unequivocally, more careful examination renders these findings somewhat ambiguous. In the case of increased instances of pregnancy among these women, for example, it should be noted that over half of those who reported having become pregnant (and almost half of the men who reported impregnating someone) rated their experience as "good" rather than "bad." Although it is true that problems - sometimes serious problems - may attend such pregnancies in U.S. society, some data also suggest that these problems have been exaggerated (Furstenberg et al., 1987; Stevens-Simon and White, 1991), and may often result more from low SES than from adolescent pregnancy itself (Trussell, 1988). Current treatment of adolescent pregnancy as intrinsically pathological may in part have generalized from an overall tendency to view adolescent sexual behavior as problematic (see Willis, 1986, for a sharply satirical characterization of this tendency).

Even findings of increased instances of STD transmission among the women in our study need to be considered carefully. Symons (February 1995, personal communication) pointed out that increased instances of STDs and pregnancy among women exposed to primal scenes might be more parsimoniously understood as decreased use of condoms among these women. Regardless of problematic outcome, decreased use of condoms may be motivated by heightened desire (and capacity) for intimacy or higher levels of trust in partners - as well as by simple lack of sexual responsibility or self-destructive tendencies. In this respect it should be recalled that there was a (nonsignificant) trend toward higher levels of self-acceptance and improved relations with adults among these women.

Interactions by sex of participant were found for several outcome measures in the direction of beneficial correlates for boys, and neutral or problematic correlates for girls. These interactions may be interpreted in a number of ways. One interpretation would be that human males and females process sexuality-related events differently as the result of sexually dimorphic psychological mechanisms that have evolved through natural and sexual selection (cf. Symons, 1979; Buss, 1994). Empirical evidence is consistent with

the notion of dimorphism in psychological mechanisms (cf. Buss, 1994; Ellis and Symons, 1990). Moore (1995) has suggested the possibility that these mechanisms might begin to emerge reliably in childhood. Some evidence is also consistent with this suggestion (cf. Gold and Gold, 1991; Knoth et al., 1988; Rind and Tomorovich, 1997).

Other explanations of the gender interactions are also possible. For example, boys and girls are socialized differently throughout the world where sexuality is concerned, with girls being socialized more restrictively (Mead, 1967). Although these socialization procedures may also represent expressions of sexually dimorphic psychological adaptation by natural and sexual selection, it could be argued that they instead represent temporally specific but worldwide sociocultural or socioeconomic forces related to patriarchal control of female sexuality.

A third explanation of our results is more prosaic. These interactions by sex may be entirely artifactual statistical noise. Indeed, the effect sizes are small, and although interactions by sex in the same general direction were noted for a number of the outcome measures, only one of these interactions reached significance after the Bonferonni correction, and one of them was reversed in direction - with women, but not men, exposed to primal scenes reporting less use of certain drugs.

Additionally, while findings of beneficial outcomes are interesting, specific findings are not predicted by any theory that we know. Thus, one is perhaps left with what may turn out to be nonreplicable beneficial correlates of the predictors. As Scarr et al. (1990) observed, nonreplicable results is the typical fate for long-term regression studies, particularly when proximate, rather than distal, predictors are being examined. In our view, then, the importance of the present investigation, apart from the suggestion of interactions by sex, lies not so much in positive findings as in the negative findings for harm - findings that converge on all of the available empirical data. Admittedly, any one set of negative results is not particularly informative. However, given virtually no evidence in this or any other empirical study that the behaviors examined in the current study are unambiguously harmful, the interesting question becomes: Why is it so widely believed in the United States and certain European nations that these practices are uniformly detrimental to the mental health of children? (See Okami, 1995, for review of professional and public opinion.) Such notions, certainly where exposure to parental nudity is concerned, are perhaps better conceptualized as myths. Whereas any of these behaviors of course may be experienced in an abusive context - and may also occasion harm under certain circumstances for certain individuals - their appearance per se does not appear to constitute cause for alarm.

Limitations of the Data

A number of methodological limitations need to be addressed in interpreting results of this study. Most obviously, although the sample contains an interesting assortment of families that permitted the predictor variables to be studied in a number of contexts, these families undoubtedly differ in a number of potentially important ways from the "average"

U.S. family. In addition to volunteer bias, the sample is made up entirely of European Americans residing in California at the time of enrollment, and "nonconventional" means exactly what it says - three fourths of the sample were nonrepresentative of typical American life-style by definition. However, while not representative, the current sample was dedicated and attrition virtually nonexistent. This adds considerably to the meaningfulness of the analysis. Moreover, because the nonconventional families (whose members constituted approximately 75% of the total sample) were more likely to adhere to countercultural values supportive of free sexual expression, nudity within the family, and so forth, it is precisely in a data set such as this that one ought to expect to see elevated problems if these practices are in fact deleterious of themselves.

Finally, whereas the sample is sufficiently large to detect main effects of even small magnitude, the regression design has less power to detect interactions. Therefore, some of the interaction trends that failed to reach significance might have been significant with a slightly larger sample. However, if this were the case, those results would have likely strengthened, rather than weakened, findings of beneficial effects and sex of participant interactions - presuming that the sample was comparable.

In this regard, the specific nature of the importance of random sampling has sometimes been distorted. As Brecher and Brecher (1986) pointed out, representativeness of sample is critical primarily in the case of prevalence and incidence studies and public opinion polls. "Definitive" testing with a random sample may not be the most powerful method of approaching questions such as those asked in the present study - particularly, given the lack of precision in measurement within the social sciences and the difficulty of constructing a truly representative sample in a society as heterogeneous as the United States. Data triangulation and cumulation of findings among heterogeneous groups is therefore a reasonable alternative.

Sampling issues aside, problems with measurement are also apparent. Some of the outcome measures have skewed distributions and this reduces the validity of the analyses for those variables. More important are problems of validity and reliability of the outcome measures themselves. Whereas some measures have publication histories, others, such as the FLS instruments, have less readily available reliability or validity information. Indeed, a few of these measures consisted simply of a face-valid scale based on a single item or small number of items. Additionally, the 18-year outcome data used in this analysis - unlike the early childhood predictor data - were collected entirely by questionnaire self-report (although in-depth interviews for 50% of participating adolescents were being conducted as of this writing).

However, the particular nature of the FLS sample offsets some of these problems. For example, although social desirability and demand characteristics are always a problem in studies such as the current one, the strong dedication to the project evinced both by FLS parents and children suggests that these participants may have responded as honestly as they are capable of doing. Additionally, the questionnaires in general refer to what were current, not retrospective events, so problems of recall are not as relevant as they would

have been had the project been retrospective rather than longitudinal (Berk et al., 1995).

In any event, lack of reliability in the instruments used here would tend to reduce the probability of the type of findings that emerged. Lack of reliability should have produced null findings - not positive findings in a direction directly opposite that proposed by received wisdom. Moreover, the overall power for any particular analysis reported here (and thus, the probability of finding the current results) was reduced as a consequence of the Bonferroni adjustment. Had this conservative correction not been used, a number of other "beneficial effects" of the target variables would have reached significance levels. It is therefore difficult to imagine a methodological problem that could have erroneously painted such a consistent portrait of no harm.

Taking this line of reasoning further, although we have chosen to report these results using methods of significance testing that emphasize absolute limits, we have come to believe that the use of confidence intervals might be a better way to view such data in the future (Cohen, 1994; Schmidt, 1996). Of course, this alternative perspective would not have led to substantively different conclusions for the present study - as already mentioned, the effect sizes are, in general, unimpressive. However, in going beyond the arbitrariness of absolute limits, the borderline effects can stand as potential foci for future research.

Findings of the current study do not resolve the moral (or legal) issue of whether the behaviors we have examined represent "subtle sexual abuse." However, they do address the empirical question of whether these occurrences are harmful, at least within certain domains. Although evidence gathered for the present study is far from conclusive, at this point it is difficult to see the utility of referring to these events a priori as harmful, and even more difficult to see the utility of characterizing them globally as "abusive."

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3 "Problems" is encased in quotation marks because, whereas STD transmission may with reason be considered unequivocally problematic, impregnating or becoming pregnant was seen by some participants as a positive event (see Discussion).

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