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*Pediatrics* 1998;101;9-
DOI: 10.1542/peds.101.4.e9

**This information is current as of March 22, 2007**

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# Normative Sexual Behavior in Children: A Contemporary Sample

William N. Friedrich, PhD*; Jennifer Fisher, PhD*; Daniel Broughton, MD*; Margaret Houston, MD*; and Constance R. Shafran, PhD‡

**ABSTRACT.** *Objective.* **Sexual behavior in children can cause uncertainty in the clinician because of the relationship between sexual abuse and sexual behavior. Consequently, it is important to understand normative childhood sexual behavior.**

*Design.* **Sexual behavior in 1114 2- to 12-year-old children was rated by primary female caregivers. These children were screened for the absence of sexual abuse. A 38-item scale assessing a broad range of sexual behavior (Child Sexual Behavior Inventory, Third Version) was administered along with the Child Behavior Checklist and a questionnaire assessing family stress, family sexuality, social maturity of the child, maternal attitudes regarding child sexuality, and hours in day care.**

*Results.* **Sexual behavior was related to the child's age, maternal education, family sexuality, family stress, family violence, and hours/week in day care. Frequencies of sexual behaviors for 2- to 5-, 6- to 9-, and 10- to 12-year-old boys and girls are presented.**

*Conclusions.* **A broad range of sexual behaviors are exhibited by children who there is no reason to believe have been sexually abused. Their relative frequency is similar to two earlier studies, and this reinforces the validity of these results.** ***Pediatrics*** **1998;101(4). URL: http://www.pediatrics.org/cgi/content/full/101/4/e9;** ***sexual behavior, children, family sexuality***

ABBREVIATIONS. CSBI, Child Sexual Behavior Inventory; CBCL, Child Behavior Checklist.

Sexual behavior in children has been the focus of increasing attention over the past decade, after the advent of research that demonstrated a consistent relationship between sexual abuse and sexual behavior in children.[1] Although a broad range of sexual behaviors has been observed in normal children,[2] further research is needed to expand the knowledge base of practicing pediatricians regarding what is normative about sexual behavior in children.

Sexual behavior in children can be sorted into a number of categories, all of them having an adult behavioral correspondence. These include adherence to personal boundaries, exhibitionism, gender role behavior, self-stimulation, sexual anxiety, sexual interest, sexual intrusiveness, sexual knowledge, and voyeuristic behavior.[2] Personal boundaries reflect the presumed interpersonal distance maintained by most people. Young children, who are just learning the culturally appropriate distance, may stand too close, rub against people, or casually touch their mother's breasts or father's genitals.

Exhibitionistic behavior in children, deliberately exposing body parts to other children or adults, may also take the form of "playing doctor." Gender role behavior reflects the sex-typing of interests and behaviors seen in children,[3] and self-stimulation subsumes masturbation as well as touching or rubbing different parts of the body to bring pleasure.

Children may show excessive modesty or anxiety at displays of affection between parents or other individuals. Alternatively, children may be very curious and open regarding sexual matters, including interest in the opposite sex and interest in more mature television shows or videos.

Sexual intrusiveness has captured considerable concern of late, particularly with our increasing awareness that preteens can behave in sexually coercive ways with other children.[4] More normative manifestations of this behavioral domain could include the mutual touching of another child's sex parts. Sexual knowledge is a child's basic understanding of sexual acts. It has been shown to vary with the child's age and the education level of the parents.[5] Voyeuristic behavior, probably a variant of sexual interest, might be reflected in children attempting to catch glimpses of nude or partially dressed children and adults.

The parental report has been the most widely used method to assess sexual behavior in children. For example, parents reported that 30% to 45% of children under 10 years of age touched their mother's breasts or genitals at least once.[6] Parents have also reported that sex typing increases during the preschool years with older children increasingly adopting gender roles.[3] On the Child Sexual Behavior Inventory (CSBI), a parental report measure, sexual behaviors were typically reported more often by parents of sexually abused children. However, all of the sexual behaviors studied were endorsed by parents for at least some children for whom there was no parental suspicion of sexual abuse.[7,8]

Day care providers have been used as reporters in several studies. A sample of 564 day care providers was asked about the sexual behavior of 1- to 3- and 4- to 6-year-old children.[9] The most consistent finding was age-related, with the youngest group, for example, judged to be the most comfortable with their own nudity. Day care providers reported that a majority of 4- to 6-year-olds interacted spontane-

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Received for publication Jul 14, 1997; accepted Dec 12, 1997.
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ously, at least occasionally, in sexual ways. Children in this age range were also reported to have imitated sexual behaviors that they had seen demonstrated or had heard about. Swedish day care providers reported relatively low frequencies of intrusive and self-stimulating behaviors, a finding similar to research with the CSBI.[10]

Retrospective self-reports have also been used to understand normal sexual behavior. Lamb and Coakley[11] interviewed female undergraduates about their recollection of having participated in sexual play as a child (mean age = 7.5 years, standard deviation = 2.0). Of particular relevance to research with the CSBI is the fact that 14% reported kissing another child, 26% reported exposing themselves, 15% reported genital touching while clothed, 17% reported unclothed genital touching, 6% reported using objects in or around genitals, and 4% reported oral-genital contact. (For some of the above behaviors, parents reported an even higher frequency on the CSBI, ie, 38.4% of parents reported their child had touched their genitals in the previous 6 months. This would suggest that for some behaviors, parents may be more valid reporters, particularly if rating behaviors contemporaneously.)[2] The more often the sexual games involved a cross-gender experience, the more likely the game was perceived as manipulative or coercive.

Given the need to understand normative sexual behavior in children as well as its relation to life circumstances other than sexual abuse, the CSBI was modified to be both more readable and contain items that were as specific as possible. Readability has been calculated at the 5th grade using Grammatik. The third version of the CSBI used in this study also reflected research with two previous versions. Finally a larger, more ethnically diverse sample of 2- to 12-year-old children was obtained. These were children for whom parents reported no reason to believe they had been sexually abused. In addition, family and child variables were gathered simultaneously and their relationship to sexual behaviors was studied.

## METHODS

### Samples

Subjects were recruited in two sites in Minnesota as well as several sites in California. Each will be described in turn.

#### *Minnesota Samples*

Subjects were recruited from families who used either a primary care pediatric clinic (N = 723) or a family medicine clinic (N = 111) in a large, multispeciality clinic that serves the primary care needs of a small midwestern city and the immediately surrounding area. To be eligible for the study, a family had to have at least 1 child between 2 and 12 years of age. Only mothers were used as reporters. Mothers were recruited in the waiting rooms of the respective clinics by a trained female research assistant who recruited consecutive parents into the study. Natural mothers accounted for 98.1% of the mothers, with the remainder being adoptive or stepmothers. Only 1 child in the 2- to 12-year age range was recruited per family, with the child typically being the one present at the clinic that day.

It was important in the development of the normative sample to exclude children with a suspicion or substantiated history of sexual abuse. Each mother was verbally informed that they were being asked to participate in a study of children's behavior, including sexual behavior. This was reiterated in the consent form they were asked to read and sign. In addition, they were asked two separate questions in the CSBI materials about suspected or substantiated sexual abuse. More specifically, they were asked to answer yes or no regarding any reason to suspect sexual abuse or whether sexual abuse had ever been substantiated, and, if so, at what age. Finally, a total of 34 mothers in the Minnesota sample were then interviewed briefly over the phone to clarify their endorsement of a behavior reported on the CSBI. Typically, these mothers had reported at least one unusual behavior. Each of these mothers were asked again if they had any reason to believe their child had been sexually abused, and in no case did they report anything different from their earlier statements. Taken together, this supports the screening process used. However, it is likely that some children with a history of sexual abuse were included in the normative sample.

A total of 1003 parents were approached and 945 agreed to participate. This represents a 94.2% participation rate. Of this number, 46 were excluded because of recent counseling, 11 because of mental retardation, and 6 because of a physical handicap. A total of 32 (3.4%) were excluded because of actual or suspected sexual abuse. Finally, only CSBI forms that were fully completed were used, and 51 were removed. (Some subjects were excluded for more than one reason.) A total of 834 children were retained.

#### *Los Angeles County Samples*

These samples consisted of 280 3- to 6-year-old children recruited from public and private day care programs in Los Angeles County. Day care administrators granted permission to the investigator (C.R.S.) to recruit volunteers who agreed to participate in a study of children's behavior, including sexual behavior. Mothers then completed the CSBI in small groups or individually. Thirteen sibling pairs were included in this sample, with all the rest being the only child from their family that was rated. The parents were compensated for their participation.

A total of 19% (N = 53) of the children initially rated were excluded for various reasons. These included 11 children because of suspected or substantiated sexual abuse, 16 because of incomplete responses, 13 because of age, 9 because of a mental or physical handicap, and another 4 for other reasons. The investigator was personally present and available to answer the questions of the mothers in the study, and this allowed further screening out of sexually abused children.

Because there were no mean differences on item endorsement for the two samples, they were combined. The total sample of 1114 well represents gender (49.7% female) and race (77.7% white, 7.7% black, and 11.6% Hispanic). The income and racial composition of this sample reflect more diversity than the two earlier normative samples,[2,8] with more lower income subjects as well as more subjects who are black or Hispanic. Specific demographics of the combined normative sample are presented in Table 1.

### Questionnaire

The 9-page questionnaire had three sections: a demographic data sheet, the 38-item CSBI, and the Problem Behavior portion of the Child Behavior Checklist (CBCL).[12] The demographic portion obtained information on age and gender of the child; marital, financial, and educational status of the parents; family size; peer relationships of the rated child; hours/week in day care; a life events checklist; and a family sexuality checklist, (eg, co-sleeping, co-bathing, liberal television/video standards, witnessing intercourse, availability of pornography, and an item asking about parental attitudes regarding the normalcy of sexual behavior in children). Two separate questions in the life events checklist screened for suspected or verified sexual abuse. The remaining life events items obtained information on whether the child had ever experienced the following: parental battering, parental death, parental arrest, other family deaths, parental illness requiring hospitalization, and child illness requiring hospitalization.

The CSBI asks for the frequency of behaviors during the past 6 months and is scored as 0, 1, 2, or 3 to reflect levels of frequency, ie, 0 = never; 1 = less than once/month; 2 = 1 to 3/month; and 3 = at least 1/week. The 38-item version of the CSBI used in this study was based on the 36-item version studied earlier.[8] Of the 36 items, 22 remained identical, 1 was dropped, 3 were added, and 12 were rewritten to read more simply and clearly, eg, Item number


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**TABLE 1.** Demographic Data

| | |
|---|---|
| Percent female | 49.7 |
| Child's age, mean y (SD) | 5.98 (2.89) |
| Maternal education, mean y (SD) | 14.37 (2.62) |
| Paternal education, mean y (SD) | 15.00 (3.72) |
| Race | |
| White | 77.7 |
| Black | 7.7 |
| Hispanic | 11.6 |
| Asian | 1.7 |
| Native American | .5 |
| Other | .7 |
| Family income | |
| <10 000 | 8.9 |
| 10 000–15 000 | 7.6 |
| 15 000–25 000 | 7.6 |
| 25 000–35 000 | 11.5 |
| 35 000–45 000 | 13.7 |
| 45 000–60 000 | 17.2 |
| 60 000–80 000 | 14.9 |
| >80 000 | 18.6 |
| Marital status | |
| Single | 8.9 |
| Married | 76.3 |
| Separated | 3.1 |
| Divorced | 10.9 |
| Widowed | .9 |
| Total n = 1114 | |

19 changed from "inserts or tries to insert objects in vagina/anus" to "puts objects in vagina or rectum."

The CBCL[12] is a widely used screening measure of children's behavior. Two versions were used, the 99-item version for 2- to 3-year olds and the 113-item version for 4- to 18-year-olds. A 3-point scale is used, ie, never, sometimes, often, and the child is rated over the previous 6 months. The CBCL assesses internalizing (eg, depression, anxiety, withdrawal) and externalizing behaviors (eg, aggression, delinquency, hyperactivity).

## RESULTS

Our findings will be presented in the following order: 1) the developmental course of observed sexual behavior in 2- to 12-year-olds; 2) the relative frequency of sexual behaviors in this normative sample; 3) the internal reliability of the CSBI; 4) the relationship of sexual behaviors to family variables; and 5) the relationship of sexual behaviors to general behavior problems.

### Developmental Course

We hypothesized that sexual behavior in children will vary by the age of the child, in part because reported sexual behavior will reflect the parent's ability to observe their child. Developmental transitions in sexual behavior are thus a function of child's age and observability. To determine change in frequency over time, the item mean was calculated for all 38 items and plotted across each year of age for both boys and girls. These results are illustrated in Fig 1.

An examination of Fig 1 suggests that 2-year-old children are observed to be relatively sexual (compared with 10- to 12-year-olds) and children become increasingly sexual up to age 5, when the item mean drops for both genders. Another drop occurs after age 9, although 11-year-old girls show a slight rise in sexual behavior, primarily coming from an increased interest in the opposite sex, ie, Item number 35, "Is very interested in the opposite sex." At age 12, boys also show a similar slight rise in mean score, again primarily attributable to an increase in endorsement of the same item. Finally, the correlation of the CSBI total score with age was also significant, $r = -.27$, $P < .0001$, suggesting even further the need to consider age in the calculation of frequencies.

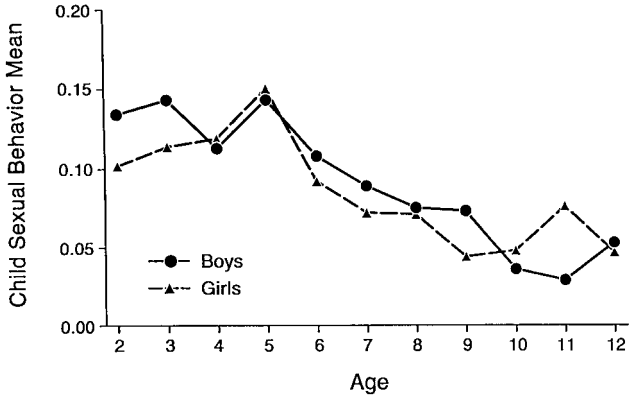


**Fig 1.** Plot of CSBI item mean scores across ages for both genders.

Because of these developmental trends, further analyses examined three groups of children instead of the two used in earlier research.[2,8] These three age groups are 2- to 5-year-olds, 6- to 9-year-olds, and 10- to 12-year-olds. (The age and sex distribution of the sample are presented in Table 2.)

### Relative Frequency

To determine the frequencies of the various sexual behaviors, the proportion of children endorsing each item on the CSBI was computed across the three age and gender groups. See Tables 3 and 4 for these results.

Endorsement was defined as a score of either 1, 2, or 3, meaning the child had exhibited the behavior at least once in the preceding 6-month period. Thus, the frequencies reported in Table 3 are simply the percentage of parents who reported the presence of the behavior.

A review of the reported endorsement frequencies indicated that for each age and gender group, there are 1 to 5 items that at least 20% of the parents endorsed. The 20% criterion was chosen because if one considers a normal distribution, the upper 20% of the sample (80% and above) is not as extreme as 1

**TABLE 2.** Age and Sex Distribution of Normative Sample

| | Age (y) | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| Male | 40 | 93 | 92 | 62 | 58 | 39 | 43 | 51 | 31 | 29 | 22 | 560 |
| Female | 41 | 96 | 83 | 67 | 60 | 32 | 41 | 38 | 40 | 34 | 22 | 554 |
| Total | 81 | 189 | 175 | 129 | 118 | 71 | 84 | 89 | 71 | 63 | 44 | 1114 |


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**TABLE 3.** Simple Endorsement Frequencies of Sexual Behaviors for the Three Male Age Groups

| Item No. (Abbreviated) | 2–5 Years Old N = 287 | 6–9 Years Old N = 191 | 10–12 Years Old N = 82 |
|---|---|---|---|
| 1. Dresses like opposite sex | 13.8 | 5.9 | 0.0 |
| 2. Stands too close | 29.3 | 14.4 | 7.5 |
| 3. Wants to be opposite sex | 6.0 | 4.3 | 1.2 |
| 4. Touches sex parts in public | 26.5 | 13.8 | 1.2 |
| 5. Masturbates with hand | 16.7 | 12.8 | 3.7 |
| 6. Draws sex parts | 1.4 | 2.7 | 1.2 |
| 7. Touches breasts | 42.4 | 14.3 | 1.2 |
| 8. Masturbates with toy/object | 3.5 | 2.7 | 1.2 |
| 9. Touches other child's sex parts | 4.6 | 8.0 | 1.2 |
| 10. Tries to have intercourse | 0.4 | 0.0 | 0.0 |
| 11. Puts mouth on sex parts | 0.7 | 0.0 | 0.0 |
| 12. Touches sex parts at home | 60.2 | 39.8 | 8.7 |
| 13. Touches adult's sex parts | 7.8 | 1.6 | 0.0 |
| 14. Touches animal's sex parts | 2.8 | 0.5 | 0.0 |
| 15. Makes sexual sounds | 0.7 | 1.1 | 1.2 |
| 16. Asks others to do sex acts | 0.4 | 0.5 | 0.0 |
| 17. Rubs body against people | 7.1 | 5.3 | 0.0 |
| 18. Puts objects in vagina/rectum | 0.4 | 0.0 | 0.0 |
| 19. Tries to look at people when they are nude | 26.8 | 20.2 | 6.3 |
| 20. Pretends toys are having sex | 0.7 | 1.6 | 0.0 |
| 21. Shows sex parts to adults | 15.4 | 6.4 | 2.5 |
| 22. Tries to look at pictures of nude people | 5.4 | 10.1 | 11.4 |
| 23. Talks about sex acts | 2.1 | 8.5 | 8.9 |
| 24. Kisses adults not known well | 7.5 | 1.1 | 0.0 |
| 25. Gets upset when adults kiss | 13.2 | 6.4 | 3.8 |
| 26. Overly friendly with men | 2.5 | 1.1 | 0.0 |
| 27. Kisses other children | 7.9 | 1.1 | 0.0 |
| 28. Talks flirtatiously | 3.2 | 3.7 | 3.8 |
| 29. Undresses other children | 1.4 | 1.1 | 0.0 |
| 30. Wants to watch TV nudity | 5.0 | 8.0 | 15.2 |
| 31. Puts tongue in mouth when kissing | 4.3 | 1.1 | 1.3 |
| 32. Hugs adults not known well | 15.4 | 3.7 | 0.0 |
| 33. Shows sex parts to children | 9.3 | 4.8 | 0.0 |
| 34. Undresses adults against their will | 4.3 | 0.5 | 0.0 |
| 35. Very interested in opposite sex | 17.5 | 13.8 | 24.1 |
| 36. Puts mouth on breasts | 5.7 | 0.5 | 0.0 |
| 37. Knows more about sex | 5.3 | 13.3 | 11.4 |
| 38. Other sexual behaviors | 4.3 | 3.6 | 1.3 |
| Mean total score (SD) | 5.0 (4.5) | 3.3 (4.2) | 1.5 (2.2) |

standard deviation above the mean (84.13% and above), and can therefore be considered more normative. These items can be considered as developmentally-related sexual behaviors, meaning that they were observed in a significant percentage of children for that age and gender group. In addition, there are very few gender differences for each age group suggesting as well that these are age-related. See Table 5 for a listing of these items across the age groups.

Items pertaining to sexually intrusive, eg, "touches or tries to touch their mother's or other women's breasts," or self-stimulating eg, "touches sex (private) parts when at home," behaviors seen in younger children, drop off in observed frequency with age.

Some of the sexual behaviors are extremely uncommon at all age and gender groups. However, consistent with earlier research with this measure, every item was endorsed by at least a few parents in this larger and more ethnically and economically diverse sample.

### Reliability of the CSBI

To assess the interrelationships among the items, and to determine if the items can be added to calculate a total score, an $\alpha$ coefficient was calculated for the entire sample.[13] All of the items were positively correlated with the total score, with a resulting $\alpha$ coefficient of .72. It is likely that a sample with more variance, ie, a clinical sample, would have a higher $\alpha$ on this scale.

### Influence of Family and Cultural Variables

The relations of several demographic variables to the Mean Child Sexual Behavior Score were calculated with multiple regression. The entire normative sample was used. Four variables were entered as a block, ie, family income, gender, age in years, and the mother's years of education. Age ($F = 9.3$, $R^2 = .06$, $P < .00001$) and maternal education ($F = 5.0$, $R^2 = .038$, $P < .00001$) were significantly related to sexual behavior and together accounted for approximately 10% of the explained variance. However, neither gender nor family income were significantly related after the variance contributed by age and maternal education was considered. This finding indicated that younger children had significantly higher CSBI scores than older children, and mothers with more years of education reported more sexual behavior than less educated mothers.

The relations of several child and family variables to the total CSBI score were then examined in the


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**TABLE 4.** Simple Endorsement Frequencies of Sexual Behaviors for the Three Female Age Groups

| Item No. (Abbreviated) | 2–5 Years Old N = 287 | 6–9 Years Old N = 171 | 10–12 Years Old N = 96 |
|---|---|---|---|
| 1. Dresses like opposite sex | 10.2 | 8.8 | 8.4 |
| 2. Stands too close | 25.8 | 18.8 | 14.8 |
| 3. Wants to be opposite sex | 8.5 | 3.5 | 4.2 |
| 4. Touches sex parts in public | 15.1 | 6.5 | 2.2 |
| 5. Masturbates with hand | 15.8 | 5.3 | 7.4 |
| 6. Draws sex parts | 3.2 | 2.4 | 2.1 |
| 7. Touches breasts | 43.7 | 15.9 | 1.1 |
| 8. Masturbates with toy/object | 6.0 | 2.9 | 4.3 |
| 9. Touches other child's sex parts | 8.8 | 1.2 | 1.1 |
| 10. Tries to have intercourse | 1.1 | 0.0 | 0.0 |
| 11. Puts mouth on sex parts | 0.0 | 0.0 | 0.0 |
| 12. Touches sex parts at home | 43.8 | 20.7 | 11.6 |
| 13. Touches adult's sex parts | 4.2 | 1.2 | 0.0 |
| 14. Touches animal's sex parts | 2.5 | 0.6 | 0.0 |
| 15. Makes sexual sounds | 2.8 | 1.8 | 0.0 |
| 16. Asks others to do sex acts | 0.4 | 0.0 | 0.0 |
| 17. Rubs body against people | 3.2 | 3.6 | 2.2 |
| 18. Puts objects in vagina/rectum | 2.8 | 0.0 | 0.0 |
| 19. Tries to look at people when they are nude | 26.9 | 20.5 | 5.3 |
| 20. Pretends toys are having sex | 1.1 | 3.6 | 3.2 |
| 21. Shows sex parts to adults | 13.8 | 5.4 | 2.2 |
| 22. Tries to look at pictures of nude people | 3.9 | 10.2 | 3.2 |
| 23. Talks about sex acts | 3.2 | 7.2 | 8.5 |
| 24. Kisses adults not known well | 6.0 | 2.4 | 1.1 |
| 25. Gets upset when adults kiss | 12.1 | 7.2 | 5.4 |
| 26. Overly friendly with men | 6.4 | 1.2 | 1.1 |
| 27. Kisses other children | 7.1 | 1.2 | 1.1 |
| 28. Talks flirtatiously | 7.1 | 6.0 | 5.3 |
| 29. Undresses other children | 2.1 | 0.0 | 0.0 |
| 30. Wants to watch TV nudity | 6.4 | 8.4 | 12.8 |
| 31. Puts tongue in mouth when kissing | 1.8 | 3.0 | 0.0 |
| 32. Hugs adults not known well | 12.8 | 6.6 | 4.3 |
| 33. Shows sex parts to children | 6.4 | 2.4 | 1.1 |
| 34. Undresses adults against their will | 2.1 | 1.2 | 0.0 |
| 35. Very interested in opposite sex | 15.2 | 13.9 | 28.7 |
| 36. Puts mouth on breasts | 4.3 | 2.4 | 0.0 |
| 37. Knows more about sex | 5.3 | 15.5 | 17.9 |
| 38. Other sexual behaviors | 3.1 | 2.7 | 0.0 |
| Mean total score (SD) | 4.7 (4.8) | 2.7 (3.5) | 2.2 (3.5) |

normative sample. Child variables included the quality of peer relationships, ethnic status (white, nonwhite), and hours/week in day care. Family variables included marital status (single, not single), life stress, family violence (the presence of physical abuse and/or parental battering), the total number of children in the family, and family sexuality.

The block of demographic variables described above, ie, income, age of child, gender, and maternal education was first entered. At the next step in the multiple regression analysis, one of the child or family variables was added. In this manner, the unique variance accounted for by that individual variable could be determined.

Of the eight additional variables assessed, four were significant at the $P < .05$ level or better. These were family violence ($F = 2.1$, $R^2 = .006$, $P < .03$), hours/week in day care ($F = 3.8$, $R^2 = .01$, $P < .0001$), life stress ($F = 2.8$, $R^2 = .007$, $P < .005$), and family sexuality ($F = 9.9$, $R^2 = .057$, $P < .00001$). Unique variance, reflected in change in $R^2$, was <1% for family violence and life stress, 1.0% for hours/week in day care, and 5.7% for family sexuality.

The relationship of family violence to sexual behavior in children may reflect the dysregulating effect of family violence, and its subsequent manifestation in such externalizing behaviors as aggression as well as sexual behavior.[14] Family violence also reflects a problem with personal boundaries, one of the sexual behavior categories measured by the CSBI.

It seems that total number of hours in day care/week contributes a clinically significant increase in reported child sexual behavior in children with no known history of sexual abuse. Why that is the case is difficult to determine without more information. Although age was a covariant in the regression analysis, younger children typically spend more hours/week in day care, and the younger children in the normative sample were more overtly sexual.

The significant relationship of life stress and sexual behavior is intriguing also. Life stress in children has been implicated in many psychosocial and behavioral problems.[15] Presumably, the relationship holds for sexual behavior also.

Parents who reported a more relaxed approach to co-sleeping, co-bathing, family nudity, opportunities to look at adult movies/magazines, and witness intercourse, also reported higher levels of sexual behavior in their 2- to 12-year-old child, even after controlling for the effects of several other family variables.

Finally, parents in the contemporary normative


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**TABLE 5.** Developmentally Related Sexual Behaviors

| Question No. | Item | % Endorsement |
|---|---|---|
| 2- to 5-year-old boys | | |
| 2 | Stands too close to people | 29.3 |
| 4 | Touches sex (private) parts when in public places | 26.5 |
| 7 | Touches or tries to touch their mother's or other women's breasts | 42.4 |
| 12 | Touches sex (private) parts when at home | 60.2 |
| 19 | Tries to look at people when they are nude or undressing | 26.8 |
| 2- to 5-year-old girls | | |
| 2 | Stands too close to people | 25.8 |
| 7 | Touches or tries to touch their mother's or other women's breasts | 43.7 |
| 12 | Touches sex (private) parts when at home | 43.8 |
| 19 | Tries to look at people when they are nude or undressing | 26.9 |
| 6- to 9-year-old boys | | |
| 12 | Touches sex (private) parts when at home | 39.8 |
| 19 | Tries to look at people when they are nude or undressing | 20.2 |
| 6- to 9-year-old girls | | |
| 12 | Touches sex (private) parts when at home | 20.7 |
| 19 | Tries to look at people when they are nude or undressing | 20.5 |
| 10- to 12-year-old boys | | |
| 35 | Is very interested in the opposite sex | 24.1 |
| 10- to 12-year-old girls | | |
| 35 | Is very interested in the opposite sex | 28.7 |

sample were also asked whether they agreed with the item, "It is normal for children to have sexual feelings and curiosity?" Using the multiple regression procedure described above, ie, controlling for the effects of age, gender, family income, and maternal education, the relationship of this question to CSBI mean was significant, $F = 2.2$, $R^2 = .015$, $P < .03$, and this question accounted for 1.5% of unique variance.

Based on the demographic analyses reported here, as well as gender-different patterns in the endorsement of certain items, both age and gender were judged to be important variables upon which to standardize the CSBI. Norms based on racial groups were not derived given the insignificant contribution of race after the influence of maternal education and family income were considered. The lack of ethnic differences also supports the combination of Minnesota and California samples.

### Sexual Behavior and Other Behavior Problems

Both internalizing and externalizing T scores from the CBCL were significantly related to the total sexual behavior score on the CSBI, even when first removing the contribution of age, gender, family income, and maternal education, ie, $F = 5.5$, $R^2 = .14$, $P < .0001$, and $F = 7.8$, $R^2 = .18$, $P < .0001$, respectively.

### Comparability to Earlier Versions

Table 6 presents the simple endorsement frequencies of the identical and similar items that were shared across at least two of the three versions of the CSBI. Because the mean ages of each of the sample differed slightly, analysis of covariance was used to examine sample differences across each item while covarying out the effects of age. There were no significant ($P < .05$) differences on any item, further supporting the reliability of these behavior ratings. In addition, a simple review of endorsement frequencies notes that only 24 out of 92 possible two-group comparisons differed by >5%.

## DISCUSSION

The frequencies of a broad range of sexual behaviors in 2- to 12-year-old children were rated by their mothers. The results were extremely consistent with earlier research, and clearly indicate that children exhibit numerous sexual behaviors at varying levels of frequency.[2,8] Sexual behaviors that appear to be the most frequent include self-stimulating behaviors, exhibitionism, and behaviors related to personal boundaries. Less frequent behaviors are clearly the more intrusive behaviors.

Sexual behavior showed an inverse relationship with age, with overall frequency peaking at year 5 for both boys and girls, and then dropping off over the next 7 years. This is reflected in the relatively large number of behaviors endorsed by at least 20% of caregivers for the 2- to 5-year-old group. One could consider these behaviors to be developmentally related and within normal limits.

It is important to remember that children's behavior must be interpreted in light of individual and family variables. The same is true for sexual behavior. For example, in addition to the significant inverse relationship with age, sexual behavior appeared to be directly and significantly related to maternal education as well as a maternal attitude about the normalcy of sexual behavior in children. Mothers with more years of education and who reported their belief that sexual feelings and behavior in children was normal, reported more sexual behavior. This observed relationship of reported sexual behavior to education and social class has been reported earlier.[16]

Reasons for this could include more liberal attitudes toward sexuality in better educated families, which may be related to a greater comfort in reporting the pressence of sexual behaviors in their child. Better educated parents may also be in a position to be more observant of their children, thus witnessing behaviors that less observant, or more preoccupied parents might miss.


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**TABLE 6.** Rank-Order of Endorsement Frequencies for Shared Items of Three CSBI Versions[a]

| Item No. (Abbreviated)[b] | CSBI-1[c] (N = 880) | CSBI-R[d] (N = 141) | CSBI-3[e] (N = 1114) |
|---|---|---|---|
| 11 Puts mouth on sex parts | .1 | 1.4 | .2 |
| 16 Asks others to engage in sex acts | .4 | 0.0 | .3 |
| 8 Masturbates with object | .8 | 2.8 | 3.9 |
| 18 Inserts objects in vagina/rectum | .9 | 2.8 | .8 |
| 10 Imitates intercourse | 1.1 | 0.0 | — |
| 15 Sexual sounds | 1.4 | 0.0 | 1.4 |
| 31 French kisses | 2.5 | 0.0 | 2.3 |
| 29 Undresses other people | 2.6 | 1.4 | 1.2 |
| 30 Asks to watch explicit TV | 2.7 | 1.4 | 7.7 |
| 20 Imitates sex behavior with dolls | 3.2 | 1.4 | 1.6 |
| 3 Wants to be opposite sex | 4.9 | 2.8 | 5.4 |
| 23 Talks about sexual acts | 4.7 | 2.8 | 5.3 |
| 1 Dresses like the opposite sex | 5.8 | 7.0 | 9.3 |
| 9 Touches others' sex parts | 6.0 | 9.8 | — |
| 17 Rubs body against people | 6.7 | 9.8 | 4.3 |
| 32 Hugs strange adults | 7.3 | 12.7 | 9.5 |
| 33 Shows sex parts to children | 8.1 | 11.3 | 5.3 |
| 13 Uses sexual words | 8.8 | 2.8 | — |
| 34 Overly aggressive, overly passive | 10.4 | 2.8 | — |
| 28 Talks flirtatiously | 10.6 | 1.4 | 4.9 |
| 5 Masturbates with hand | 15.3 | 19.6 | 12.4 |
| 22 Looks at nude pictures | 15.5 | 9.9 | 6.7 |
| 21 Shows sex parts to adults | 16.0 | 4.2 | 9.8 |
| 4 Touches sex parts in public | 19.7 | 28.8 | 14.4 |
| 35 Interested in the opposite sex | 23.0 | 9.9 | 17.1 |
| 19 Tries to look at people undressing | 28.5 | 23.9 | 21.4 |
| 7 Touches breasts | 30.7 | 35.3 | 27.3 |
| 27 Kisses children they don't know well | — | 8.5 | 4.5 |
| 24 Kisses adults they don't know well | — | 7.0 | 4.3 |
| 6 Draws sex parts | — | 2.8 | 2.3 |
| 14 Touches animals' sexual parts | 1.3 | 2.8 | 1.5 |
| 25 Gets upset by public displays of affection | — | 9.8 | 9.6 |
| 26 Overly friendly with men they don't know well | 7.1 | 2.8 | 2.8 |
| 36 Mouth on breasts | 2.6 | 0.0 | 3.0 |
| 2 Stands too close to people | 11.6 | 18.3 | 21.3 |
| 12 Touches sex parts at home | 45.8 | 39.5 | 38.4 |

[a] Only identical or similar items are included. The current version includes some new items.
[b] The entire items is not reprinted. The item number reflects the number of the item for the current version.
[c] Friedrich et al.[7]
[d] Friedrich.[8]
[e] Current version.

The lack of significance noted for ethnicity warrants some discussion. A purpose of this study was to deliberately assess a more ethnically and socioeconomically diverse sample than previous research on childhood sexuality. The fact that >22% of the sample was a member of an ethnic minority should have been sufficient to identify any differences that were present. Ethnic status did correlate significantly with family income in this sample ($r = .45$, $P < .0001$), and it may be that any unique variance ethnic status may have added was eliminated by entering family income in the first block of variables in the multiple regression analysis. Future research is needed to examine this question more precisely.

The direct relationship of reported family sexuality with sexual behavior was also noted in this study. This finding validates earlier research with the first version of the CSBI.[2] There are likely two pathways to this relationship. The more direct pathway is that a more relaxed family attitude regarding nudity or observing adult sexuality results in children in that family being more likely to exhibit sexuality. It may also be that a greater openness and honesty about one's own sexuality is related to more disclosure about one's child's sexual behavior. However, there is nothing in this data that indicates that parents should alter their family sexuality practices. Rather, the data affirm the premise that the behavior of children is reflective of the context in which they are raised.

It is less clear how hours in day care are related to sexual behavior in children. However, children in day care are likely to be exposed to children who have been raised by parents whose attitudes toward child-rearing may be quite different than their own parents. Peer socialization around sexuality is as likely as other processes that are mediated by peers. The relationship of children's sexuality to hours in day care may reflect more chances to interact with children who vary regarding sexuality.

Sexual behavior was also significantly related to both family violence and total life stress, even after controlling for the effects of maternal education and family income. Both of these have been shown to be related to behavior problems in children,[15] and to the extent that sexual behavior can be problematic, it is likely that a similar connection exists. Life stress may reflect less consistent parenting and as a result may predispose a child to act out in a variety of ways. Family violence is a model for boundary problems


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and intrusive behavior. Although not examined directly in this study, family violence may also expose a child to adult sexuality in a manner not seen by a child growing up in a more protected environment.

Sexual behavior was directly related to other parent-reported behavior problems. This has been reported in earlier research,[2,17] and most likely is a reflection of the fact that sexual behavior and other behaviors occur along a continuum, with overlap occurring in children who are at either extreme. Although sexual behavior is normative, excessive sexual behavior appears related to other behavior problems, including sexual abuse.[7]

Although the sample of children was both large and reasonably diverse in terms of income and ethnicity, there are a number of cautions that need to be stated. First, despite our efforts at screening out children with a history or suspicion of sexual abuse, it may be that the final sample contained sexually abused children whose behaviors inflated the endorsement frequency. In addition, our information reflects parent observations, and as children get older, it is quite likely that their parents are not as aware of their child's behavior as they were when the child was younger and spent less time with peers. However, it is not likely that any research is forthcoming that directly asks children about their sexual behavior.

Hopefully, the information derived in this study can be used by pediatricians to provide guidance to parents about the relative normalcy of a large number of sexual behaviors in children. The information presented in Table 6 reveals a great deal of consistency across three studies and clearly indicates that there are many sexual behaviors exhibited by children, with some of them quite common, particularly if age is taken into consideration. Given the relationship between sexual behavior and sexual abuse, it is important for a pediatrician to be in a position to inform parents, for example, that simply because a 5-year-old boy touches his genitals occasionally, even after a weekend visit with his noncustodial parent, it does not mean he has been sexually abused. Rather, it is a behavior that is seen in almost two thirds of boys at that age. This same pediatrician may also be in a position to point out when a behavior or group of behaviors is very unusual, raises concern, and should be addressed.

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*Pediatrics* 1998;101;9-
DOI: 10.1542/peds.101.4.e9

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