



UvA-DARE (Digital Academic Repository)

Recognizing child sexual abuse

Bosschaart, T.F.

[Link to publication](#)

Citation for published version (APA):

Bosschaart, T. F. (2018). Recognizing child sexual abuse: An unrelenting challenge

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <http://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

11

General discussion

General discussion

In this thesis we studied the diagnostic value of different aspects in the psycho-medical evaluation of alleged child sexual abuse (CSA) and we assessed the pediatric assessment of alleged CSA (part I). Subsequently, in part II, we focused on the psychosocial and physical complaints, the sexual behavior and sexual knowledge, and the outcomes of the physical examinations in children involved in the Amsterdam Sexual Abuse Case (ASAC).

In part I we delineate that it is difficult for clinicians to recognize CSA in children as in most cases there is no disclosure, often there are only non-specific symptoms (assuming that there are symptoms), often anogenital examination is not contributive and tests for STIs and pregnancy are negative. Therefore, in the Dutch guideline, it is recommended that alleged CSA is assessed systematically by multidisciplinary teams with expertise in CSA. The Child Sexual Behavior Checklist (CSBI) is an instrument to assess sexual behavior in children but cannot be used on its own to distinguish between sexually abused and non-abused children. When evaluating the outcomes of the assessment of alleged CSA at the outpatient department (OPD) we found that children's disclosures of CSA are a valuable part in the evaluation. While reviewing studies on CSA and functional somatic symptoms we found that a considerable amount of relevant information was not reported, and a wide variety in study designs, definitions, origins of samples, and the methods and instruments used for data collection. The diversity in methods used in studies on this subject makes it impossible to combine prevalence rates quantitatively and to compare results between studies.

Among the 125 children included in the ASAC-study (part II) we found that many proven victims of CSA show no psychosocial symptoms, worrisome sexual behavior or knowledge, or signs at anogenital examination.

Clinical experts identified signs of post-traumatic stress disorder (PTSD), regression in continence skills (not otherwise explained), and problems triggered by exposure to the perpetrator or the abuse location as concerning symptoms for CSA. Less concerning symptoms were designated as worrisome if they were numerous and there was no clear explanation for these non-specific symptoms.

Among the 125 children included in the mixed method study on sexual behavior and knowledge, we found worrisome or very worrisome sexual behavior or knowledge in 37% of the children.

And even though, anogenital findings specific for CSA are often lacking, deviant behavioral reactions during physical examination were reported significantly more frequently in children who experienced anal/vaginal penetration. Precise observation of a child's behavior during physical examination is recommended.

Based on the outcomes of our studies we were able to make recommendations for clinical practice and future research in the field of CSA. These will be discussed in the following paragraphs.

Recommendations for clinical practice

There are many barriers that withhold professionals to investigate suspected abuse and CSA, such as insufficient experience in discussing and/or investigating suspected abuse, fear to damage confidence between patient and professional, fears for a legal consequences, and fears for possible aggression⁸. Nevertheless, this should not withhold professionals to investigate suspected CSA.

Indications for pediatric examination for alleged CSA

Referring every child with psychological or unexplained physical symptoms for CSA-evaluation, is impractical. Clinicians who care for these children need to be aware of the diverse and non-specific psychosocial and physical symptoms which can be displayed in CSA-victims and should be alerted by other signs or symptoms matching with CSA. If other signs and symptoms are noted, which are consistent with CSA, direct referral for further evaluation is required. Examples are a disclosure of CSA, anogenital injury not explained by an accident, pregnancy without a history of consensual sexual contact with a peer, and/or an STI not explained by non-sexual transmission. Other examples where referral is appropriate are: children diagnosed with a PTSD, without explanatory event; children showing atypical behavioral problems without explanation or atypical sexual behavior; or children showing age-inappropriate sexual knowledge. One needs to keep in mind that absence of symptoms concerning for CSA never excludes CSA, and that most symptoms are non-specific; thus other causes need to be considered.

Systematic and multidisciplinary assessment

Since diagnosing CSA is so difficult, it is important that alleged CSA in children is evaluated multidisciplinary and systematically. The assessment should include a medical and psychosocial history, physical examination (including anogenital examination), child interview (with focus on a child's sexual knowledge and behavior, and other psychologic or psychiatric symptoms) and testing for STIs.

A multidisciplinary team should at least have the availability of medical and psychological expertise. Clinicians involved need knowledge of the facts on symptoms related to CSA and other types of maltreatment, age-appropriate child (sexual) development, physical symptoms and (normal) anogenital anatomy. Wallace and colleagues have shown that a multidisciplinary approach can be effective in evaluating child abuse⁹. Furthermore, the American Academy of Pediatrics recommends that pediatricians “seek a second expert opinion in cases of CSA when the child’s anal or genital examination is thought to be abnormal”¹⁰. We would prefer to extend this advice to include multidisciplinary consultations in all cases of confirmed or suspected CSA.

In the Netherlands expertise on CSA can be found in the centers for sexual abuse (in Dutch: ‘Centra voor Seksueel Geweld’, CSG) and the national expertise center on child maltreatment (in Dutch: ‘Landelijk Expertise Centrum Kindermishandeling’, LECK). The CSG provides medical, psychological and legal help for all victims of sexual abuse (both children and adults) who were abused up to and including seven days prior. The LECK is an expertise center where forensic, medical and pediatric expertise are integrated. The LECK can also be consulted for cases in whom the abuse was more than seven days ago. The highest level of evidence for CSA is forensic evidence (for example DNA-traces) or CSA recorded on child pornographic images (photographs or videos). However, in most cases this kind of evidence for CSA is lacking. The second best reference standard is therefore a multidisciplinary assessment combining forensic, pediatric and psychosocial evaluation of a case. We need to keep in mind that the diagnostic value of this multidisciplinary approach is uncertain.

Medical history

Physical complaints

There is scientific evidence that CSA is associated with poor health outcomes in later life^{3,11-16}. Physical complaints were reported frequently in our studies (50-59.7%^{17,18}). However, so far, the physical complaints reported in our studies were nonspecific for CSA. Our systematic review on the association between FSS in children and CSA showed a too wide variety in studies. Based on current literature, no firm conclusion on the association between CSA and FSS could be drawn.

Psychosocial symptoms

Numerous studies have reported associations between childhood sexual abuse and psychological and psychiatric disorders in adults, such as substance abuse, self-injurious behavior, post-traumatic stress disorder (PTSD), and (sexual) behavioral problems^{2,7,19-28}. Several previous studies have likewise found that children exhibit many different, and widely varying, symptoms. So far, no specific pattern of psychosocial symptoms that

indicates CSA has been identified in young children²⁹⁻³¹. A number of factors appear to be associated with increased distress after CSA: specific aspects of the abuse (nature, frequency, duration, severity, and relationship with perpetrator), environmental factors (how safe is the child?), and the child's character²⁹. These could be explanations for why certain children manifest problems and others do not.

The absence of a clear pattern in symptoms makes the interpretation of psychosocial symptoms difficult. When evaluating psychosocial symptoms less concerning for CSA in young children, we need to take into account possible triggers, the total number of reported problems, and whether there are other possible explanations. A combination of multiple less concerning psychosocial symptoms can raise concerns if there is no other plausible cause.

Many of the children who are abused do not show psychological problems, neither physical injuries³²⁻³⁹, which is in line with our findings⁴⁰. Since some CSA-related symptoms may take time to develop, it would be wise to monitor such problems in children over time.

Post-traumatic stress disorder (PTSD)

In adults a history of CSA is associated with PTSD^{2,20-22}. Finding signs of PTSD (intrusion and avoidance) in our sample was not surprising. Approximately one quarter of children develop PTSD after interpersonal traumas such as CSA⁴¹. However, the review of Alisic and colleagues (2014), included only one sample with preschool children younger than four years of age⁴¹. The clinical manifestation of PTSD differs in young children, older children and adults⁴². A child's developmental stage must therefore be taken into account when evaluating PTSD⁴²⁻⁴⁴. In general, the rates of PTSD in preschool children appear to be lower than those in older children exposed to trauma⁴⁴, and three third do not develop PTSD⁴¹. This may be because young children are relatively protected by cognitive and perceptual immaturity or because the criteria themselves are not developmentally sensitive enough⁴⁴. Studies have shown that children with PTSD show significantly more developmental regression, such as continence skills regression, than children without PTSD who experienced the same trauma^{45,46}. Perhaps signs of such regression in young children could also be interpreted as signs of PTSD. Literature on the prevalence of PTSD after CSA in very young, preschool children is lacking.

Sexual Behavior

In a comprehensive review by Kendall-Tacket et al, 1993, which also includes young children (<6 years of age), sexual behavior problems in 28% of the CSA-victims was found³¹. However, this study is based on older data, possibly a review of more recent research could bring new insights.

Although sexual behavior problems are more often reported in CSA-victims than in non-abused children, there is no single specific sexual behavior that is indicative of sexual abuse⁴⁷. Other origins of developmentally inappropriate sexual behaviors, including physical abuse, family violence, and other types of maltreatment, are known to be possible⁴⁷⁻⁵¹. Nevertheless, evaluating a child's sexual behavior is recommended as part of the assessment for alleged CSA in children and therefore it is important that pediatricians who do evaluations of alleged CSA are aware of normal, developmentally appropriate variations in children's sexual behaviors¹⁰.

Nevertheless, as sexual behavior problems are frequently reported among children in whom CSA is suspected it is important that a systematic assessment follows.

Sexual knowledge

Possibly, age- inappropriate sexual knowledge in children might be a better indicator for CSA than sexual behavior. On the whole, young children have very little sexual knowledge. They only possess certain basic knowledge of genital differences, gender identity, sexual body parts, and non-sexual functions of the genitals. Knowledge of pregnancy, birth, reproduction, and adult sexual behavior is very limited and decreases in that order. Younger children generally know less than older ones⁵².

There are several reasons why age-inappropriate sexual knowledge may be a more useful discriminant for assessing CSA than sexual behavior. Sexual knowledge can be more objectively measured, measurements need not depend on caregivers' observations, and although the extent of knowledge may depend partially on the extent of experience, knowledge of sexuality is likely to be less dependent on abuse-related variables⁵⁰. Although, there could be a multitude of reasons why sexual knowledge differs between children, such as differences in parental-provided sex education, exposure to sexual-related information from peers and siblings and exposure to sexuality via media. These limitations would limit the conclusions that could be drawn from an assessment indicating age-inappropriate sexual knowledge.

To be able to express sexual knowledge, children need to have a certain level of speech development. However, clinicians need to keep in mind that young children might be talking, but they still do not have the words to express their experiences. For example, young children do not know words like ejaculation and might describe ejaculation as peeing, a word they do know⁵⁰.

Child interview

The first step for a professional is to tell a child that it is okay if the child talks to you, about anything. It might be helpful if parents tell the child before the interview that it is alright to talk to the interviewer.

Secondly, professionals should not hesitate to ask about traumatic experiences of the child, and get to the point. Carefully observe the child's behavior during the interview; a child might say 'no' while his body language tells you the opposite.

Children's reports of CSA are extremely important, maybe even the most important, in any abuse case, whether or not a physical or laboratory finding is present⁵³, as there are almost never any eyewitnesses of the abuse. Fears, shame and linguistic or verbal limitations can withhold children from disclosing CSA. Hence, an important part of the assessment in cases of alleged CSA is the child interview. It is necessary that children are carefully interviewed by skilled professionals trained to interview children about possible abuse⁵⁰ separated from the parents to avoid parental influence on the child's statements¹⁰. The positive and negative predictive value of abuse disclosure are strongly influenced by the way children are interviewed⁵⁴. Approaching the child at his own level in terms of development, readiness to disclose, culture and language⁵⁵, using free recall (open ended) questions and so called "How" questions (which are likely to elicit evaluative information), and avoiding misleading and direct questions (as they generally increase false positive rates, especially in younger/preschool children) are some key elements^{10,54,56,57}.

Anogenital examination

Besides a medical and psychosocial history, and the child interview, the physical examination is an integral part of the assessment. However, most genital injuries in CSA heal with little or no residua, unless the injuries are severe. When children are physically examined more than 72 hours after the last abuse, physical signs specific for CSA, are only found in a small minority of cases, 4 to 5%^{58,59}. This corresponds with our findings^{17,18}.

Physically examining children for alleged CSA requires training and special skills. Interpreting anogenital findings is difficult and only limited number of signs indicate penetrative trauma. Genital examinations should always be documented photo or video graphically. This allows clinicians to consult (forensic) experts without burdening a child with additional examinations.

Considering the fact that findings at physical examination indicative for CSA are very rare in children, it is important to carefully observe the child's behavior during the examination. We found that deviant behavior during anogenital examination might be a good

indicator of CSA. Especially sudden behavioral changes observed during the anogenital examination, such as anxiety, panic attacks or shutting down, and ‘too easy and outgoing’ reactions seem important. Though this topic is not yet studied extensively, some other studies found that non-abused children do not perceive the anogenital examination very distressing⁶⁰. In children examined for alleged CSA it appears that significantly more stress was reported by older children (12 years and above⁶¹. Whereas other studies found that anogenital exams are not re-traumatizing or perceived as ‘strongly negative’^{62,63}. However, anxious feelings prior to the examination seem to increase anxious behaviors during the examination⁶⁴. Knowledge of preschool children’s perceptions of the anogenital examination and the best way to prepare these children is lacking.

Laboratory testing

The last part of the assessment is often laboratory testing for sexually transmitted infections (STI) and pregnancy (when applicable). However, finding an STI does not necessarily indicate CSA. For instance, some infections, *Condyloma acuminata* or Herpes simplex type 1 or 2 infections, can be spread by both non-sexual and sexual transmission. Therefore additional information is required to interpret these infections⁵³. Infections likely to be caused by sexual contact, if confirmed by appropriate testing, and perinatal transmission has been ruled out are gonorrhea, syphilis, chlamydia, HIV (if transmission by blood or contaminated needles has been ruled out), or *Trichomonas vaginalis*⁵³.

Using instruments during the assessment

Measuring sexual behavior

Examining sexual behavior is part of the total assessment of alleged CSA in children. The Child Sexual Behavior Inventory (CSBI), is an instrument used to measure sexual behavior in children. However, based on our review, we found that the CSBI only has a limited ability to distinguish abused from non-abused children in children with alleged CSA. This can be explained by four reasons: 1. The CSBI only screens for symptoms and does not ask about a child’s experiences; 2. Only one third of the sexually abused children have sexual behavior problems³¹, meaning that two third of the abused children do not display sexual behavior problems; 3. There is not one specific sexual behavior that is indicative for CSA, and there are many other explanations for the behavior⁴⁷⁻⁵⁰; and 4. It is likely that there are several cases of suspected CSA in whom the reason for the suspicion of CSA is based on observed atypical sexual behavior. Possibly the CSBI-scores of the entire sample of children with suspected CSA were higher on average compared to the normative population, as was also reported in psychiatric control samples⁶⁵. This is an important point – there could be circularity that is impacting the accuracy of the CSBI in this context. When atypical sexual behavior is the reason for suspecting CSA this may lead to false positive accusations, as there are numerous other explanations for the displayed behavior⁴⁷⁻⁵⁰.

Based on what was published on the reliability of the CSBI in general, the CSBI seems to be a reliable instrument to objectively measure a child's sexual behavior. However, the CSBI measures sexual behavior observed by a caregiver who answers the questionnaire. The CSBI relies on what is observed (and reported) by the caregiver and is therefore not fully objective.

Instruments for interviewing children

As discussed previously, the SKPI is a non-verbal technique which can be used during the child-interview. Unfortunately, until now the SKPI is not a validated tool to differentiate between abused and non-abused children. Research to validate the SKPI is in progress⁶⁶. Until the SKPI has been validated the instrument needs to be used carefully and we should be cautious in interpreting the outcomes.

The administration of non-verbal techniques like the SKPI in abuse interviews has been widely debated. The use of anatomical dolls, for example, is considered to encourage leading or suggestive lines of questioning, as well as over interpretation of a child's play⁶⁷. However, when non-verbal techniques are employed in accordance with a standardized protocol, using open and non-suggestive questions, they can be valuable instruments, especially in young children with limited verbal abilities⁶⁷. Professionals need to be trained to use such instruments adequately.

Previous research has shown that non-abused children respond with an open-minded and engaged attitude to the interview material⁶⁸. Sexually abused children have been found to show significantly more non-verbal reactions indicative of avoidance of the sexual meanings of pictures^{52,68}.

The American Professional Society on the Abuse of Children (APSAC) has developed guidelines for forensic interviewing of children on abuse. In this interview method the child's narrative is the central focus. However, forensic interviewing is a specialized skill. Pediatricians and child behavioral specialists need special training before applying this interview method.

Trauma treatment

Various studies show that children who were sexually abused have a higher chance on revictimization if they do not receive treatment⁶⁹⁻⁷¹. PTSD is an important mediator in the process of revictimization⁶⁹⁻⁷¹. Therefore it is important to prevent PTSD and otherwise treat PTSD adequately. Helping a child to cope with the traumatic experience decreases the chance on psychosocial problems and revictimization. PTSD can be treated adequately using Eye Movement Desensitization and Reprocessing (or EMDR) or Trauma Focused

Cognitive Behavioral Therapy (TF-CBT)^{72,73}. Unfortunately it is unclear whether all victims of CSA have access to adequate treatment to recover⁷⁴.

Recommendations from victims of CSA and parents of children with CSA

When developing the pediatric guideline on diagnostics in alleged CSA^{6,75}, we interviewed many victims of CSA and parents of children who were sexually abused. The majority of patients and parents indicated that they had waited a long time before they started to talk about the abuse, even often not before they were adults. After disclosing the abuse they frequently encountered closed doors and had to deal with professionals who did not know how to respond. For most patients and parents it took a long time before receiving the help they needed. Many did not feel heard, believed or supported. During focus group discussions they came up with some important advices for professionals:

CSA can be a blind spot for most people. Professionals need to be open and willing to see CSA and be alert for signals children give. Be aware that CSA exists in many different forms. CSA can be the cause of physical and behavioral problems in a child, be willing to notice the signals. Ask about striking behaviors or physical complaints. Name the signs you notice and that you are concerned. Explain that CSA happens and can cause physical or psychological problems in children. Children might say 'no' to direct questions for abuse, but this does not always mean CSA is not happening. Therefore, it is of major importance to come back to this topic at a later moment.

In case of a disclosure immediate professional help with expertise on CSA should be offered. A child's story should be taken seriously, despite of the content of their story. It is possible that the child thickens the story because he or she is scared not to be believed, or 'justify' why he or she did not resist. Unfortunately it happens that the story is not taken serious if a child is caught on a lie.

What to do differs per child. Some children respond best on a direct approach where others close down. There is not one method, question or answer by which CSA can be discovered. In general it is important to create a safe and trusting environment. The child needs to be in charge, for example by deciding who can be present during interviews or investigations. Make time to discuss your concerns and ask again about possible abuse at a later time. Other ways to create a safe environment is by approaching children in a child friendly manner, playful surroundings, games, and icebreakers. Children need to feel that they are being heard and believed. This can be done by involving children during the entire assessment.

A strong emotional response of the professional in reaction to a disclosure should be avoided. As result, a child may think that the professional is not able to cope with the story and stops telling. However, this does not mean that professionals should not show any emotional reactions, they should however, not predominate.

Children are often threatened or scared by the perpetrator to prevent them of disclosing. Children can be scared to lose control or that the threats of the perpetrator become a reality. Discuss clearly with the child about the consequences of a disclosure and try to comfort the child. Often the child and/or the parents feel the need to have a confidential adviser, who can assist them during the entire process. Make time, do what you say and say what you are doing.

Future research

To date, a generally accepted, scientifically valid way to diagnose or exclude CSA in young children is lacking^{30,31,76}. Recognition of CSA needs to be improved, as up to now, many cases of CSA are missed by professionals⁵. We would therefore recommend to focus future research on improving the recognition of CSA in children.

For future research in the field of CSA it is important that researchers develop internationally agreed definitions, and 'core sets' of instruments to determine and rule out CSA for research purposes. This would make it possible to interpret the results of studies performed to generate knowledge on associations between CSA physical or psychosocial symptoms and to make valid comparisons.

First, as most psychosocial and physical symptoms are not specific for CSA, we recommend studying risk factors for CSA, whether there are recognizable symptom patterns in children after CSA, and how these symptoms can be measured objectively. Further we need to learn more on how to interpret physical and psychosocial symptoms. Prospective studies on physical and psychosocial symptoms, the outcome of the child-interview, and the anogenital examination (including behavioral observations), could be of value if the data is systematically collected and validated instruments are used where possible. The collected data should be reviewed by experts on CSA, both independently and as a multidisciplinary team (e.g. child-abuse pediatrician and child-behavioral specialist) blinded for the clinical conclusions and police information, if available. Ideally, the clinical samples should include children in whom CSA was proven by police investigations, children in whom pediatric assessment concluded a high suspicion and children in whom CSA is not likely. Such research could provide information to enable early detection of CSA, early recognition of its consequences, and the prompt provision of support.

Until now research has focused on sexual behavior in children. However, as discussed earlier, sexual knowledge is presumably a more objective and more readily measurable indicator compared to sexual behavior⁵⁰. Systematic research on sexual knowledge in children after CSA in comparison with non-abused controls is needed. This can create a better understanding of age-appropriate and -inappropriate sexual knowledge in children. Nevertheless, there are several reasons why sexual knowledge differs between children, for example differences in sex education, exposure to sexual-related information from peers and siblings and exposure to sexual media. If possible, all these factors should be taken into account. Non-verbal techniques such as the SKPI need to be evaluated further in order to create standardized, validated interview techniques for young children who are examined for possible CSA.

Third, as recommended by the Royal College of Pediatric and Child Health-guideline, there is an urgent need for comparative primary research studies on CSA and anogenital injuries (in both female and male children)⁵⁸. However, as anogenital injuries are rare we do not believe that this will increase the number of recognized cases of CSA. Perhaps studying children's behavioral reactions during examination is more promising. Therefore, research should focus on (normal) behavioral reactions of children during examination and compare children with CSA to non-abused children. It is advised that during the physical examination an observer is present to notice the child's reactions, preferably a child behavioral specialist. Based on our current knowledge children need to be prepared carefully and age adjusted before the physical examination. Though further research is needed to investigate how young children can be prepared best.

Fourth, the shortage of studies reporting on associations between CSA and physical complaints in children is striking. We recommend that future research should focus on the association of CSA and functional somatic symptoms in young, preferably preschool, children. Ideally a prospective cohort study investigating the association of CSA and functional somatic symptoms in young (preschool) children should be performed.

Fifth, due to the low prevalence of STIs in the pediatric population and the various transmission routes, it is difficult to examine the association between STI in children and CSA. To be able to give clear and valid recommendation large numbers of participants are needed in studies on STIs and CSA.

As discussed in our recommendations for clinical practice, alleged CSA should be examined systematically. Therefore, research should contribute to the development of sexual abuse case protocols to enable clinicians to improve CSA assessments and to simultaneously collect standardized data on CSA assessment for research purposes. The knowledge

gained from such research could additionally be helpful in creating a rating system for psychosocial symptoms that are more concerning or less concerning for CSA.

And finally, as a disclosure of CSA is such an important element we should study how children can be best empowered to talk about abuse and how parents can help their child to talk about sexual abuse. Educating children in schools and through social media might be helpful. This was also one of the recommendations of the experience experts we spoke during the development of the Dutch guideline on diagnostics in alleged child sexual abuse ^{6,75}.

Conclusions

Confirming or excluding CSA in children is difficult, especially when children are very young, (preverbal age). With our studies we tried to improve the recognition of CSA. The most important conclusions to draw from this thesis are mentioned below.

- We were unable to identify a clear symptom pattern indicating CSA.
- However, evaluating expert opinions showed that there are symptoms which can be considered more or less concerning: PTSD symptoms, regressions in continence and other cleanliness skills were designated by experts as symptoms more concerning for CSA, unless other explaining stressors are present.
- All other psychosocial symptoms may raise concerns for CSA if they are numerous and unexplained.
- We advise clinicians to assess children presenting with sexual behavior problems and age-inappropriate sexual knowledge thoroughly for CSA, but also keep in mind other possible explanations.
- Signs of CSA at anogenital examination, STI and positive pregnancy tests are rarely found. However, observing children's behavioral responses during anogenital examination might be of value.
- Evaluating alleged CSA should be done systematically, multidisciplinary, and over time, to evaluate a child's development, and any progression of symptoms.
- So far, there are no validated instruments for the diagnosis of CSA. The CSBI can be used to measure sexual behavior but should not be used on its own to differentiate between children with and without a history of CSA. The SKPI needs to be validated and until then used cautiously.
- Be aware, CSA happens, but this is not always visible. Many victims do not display physical or psychosocial problems. "It's normal to be normal" does not only count for the anogenital examination.
- Children's disclosures are essential and therefore techniques and instruments to talk with children about abuse should be improved, and children should be empowered to talk about abuse, this might be the only evidence in many cases.

Abbreviations

ASAC	Amsterdam Sexual Abuse Case
CSA	Child sexual abuse
CSBI	Child Sexual Behavior Inventory
EMDR	Eye movement desensitization and reprocessing
FSS	Functional somatic symptoms
LECK	Landelijk Expertise Centrum Kindermishandeling
OPD	Outpatient department
PTSD	Post-traumatic stress disorder
SKPI	Sexual Knowledge Picture Instrument
STI	Sexually transmitted infection
TF-CBT	Trauma focused cognitive behavioral therapy

References

1. Stoltenborgh M, van IJendoorn, MH, Euser EM, Bakermans-Kranenburg MJ. A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child maltreatment*. 2011;16(2):79-101.
2. Maniglio R. The impact of child sexual abuse on health: a systematic review of reviews. *Clinical Psychology Review*. 2009;29(7):647-657.
3. Irish L, Kobayashi I, Delahanty DL. Long-term physical health consequences of childhood sexual abuse: a meta-analytic review. *J Pediatr Psychol*. 2010;35(5):450-461.
4. Paras ML, Murad MH, Chen LP, et al. Sexual abuse and lifetime diagnosis of somatic disorders: a systematic review and meta-analysis. *JAMA*. 2009;302(5):550-561.
5. Investigating Child Sexual Abuse. Children's commissioner for England;2017.
6. Teeuw AH, Vrolijk-Bosschaart TF, Langendam MW. [Guideline: Diagnostics for (alleged) child sexual abuse] Richtlijn: Kindermishandeling, Diagnostiek bij (een vermoeden van) Seksueel Misbruik bij kinderen; Nederlandse Vereniging voor Kindergeneeskunde (NVK). Utrecht2016.
7. Lindauer RJ, Brilleslijper-Kater SN, Diehle J, et al. The Amsterdam Sexual Abuse Case (ASAC)-study in day care centers: longitudinal effects of sexual abuse on infants and very young children and their parents, and the consequences of the persistence of abusive images on the internet. *BMC psychiatry*. 2014;14:295.
8. Pons AGA, Lie TMY, de Jong MM, van den Heuvel AA. Rapportage onderzoek onder artsen naar de werking van de meldcode huiselijk geweld en kindermishandeling. Ministerie van VWS;2015.
9. Wallace GH, Makoroff KL, Malott HA, Shapiro RA. Hospital-based multidisciplinary teams can prevent unnecessary child abuse reports and out-of-home placements. *Child abuse & neglect*. 2007;31(6):623-629.
10. Jenny C, Crawford-Jakubiak JE. The evaluation of children in the primary care setting when sexual abuse is suspected. *Pediatrics*. 2013;132(2):e558-567.
11. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *AmJPrevMed*. 1998;14(4):245-258.
12. Dong M, Giles WH, Felitti VJ, et al. Insights into causal pathways for ischemic heart disease: adverse childhood experiences study. *Circulation*. 2004;110(13):1761-1766.
13. Anda RF, Brown DW, Felitti VJ, Dube SR, Giles WH. Adverse childhood experiences and prescription drug use in a cohort study of adult HMO patients. *BMC public health*. 2008;8:198.
14. Felitti VJ. Adverse Childhood Experiences and Adult Health. *Academic pediatrics*. 2009;9:131-132.
15. Noll JG, Zeller MH, Trickett PK, Putnam FW. Obesity risk for female victims of childhood sexual abuse: a prospective study. *Pediatrics*. 2007;120(1):e61-67.
16. Vamosi M, Heitmann BL, Kyvik KO. The relation between an adverse psychological and social environment in childhood and the development of adult obesity: a systematic literature review. *Obesity reviews : an official journal of the International Association for the Study of Obesity*. 2010;11(3):177-184.
17. Vrolijk-Bosschaart TF, Brilleslijper-Kater SN, Widdershoven GA, et al. Physical symptoms in very young children assessed for sexual abuse: a mixed method analysis from the ASAC study. *Eur J Pediatr*. 2017;176(10):1365-1374.
18. Vrolijk-Bosschaart TF, Nagtegaal M, Zoetelief SE, et al. Clinical profiles of children assessed for alleged childhood sexual abuse at an outpatient paediatric department between 2012 and 2016. *Child abuse & neglect*. Submitted.
19. Beitchman JH, Zucker KJ, Hood JE, daCosta GA, Akman D. A review of the short-term effects of child sexual abuse. *Child Abuse Negl*. 1991;15(4):537-556.
20. Paolucci EO, Genus ML, Violato C. A meta-analysis of the published research on the effects of child sexual abuse. *The Journal of psychology*. 2001;135(1):17-36.
21. Briere JN, Elliott DM. Immediate and long-term impacts of child sexual abuse. The Future of children / Center for the Future of Children, the David and Lucile Packard Foundation. 1994;4(2):54-69.
22. Spataro J, Mullen PE, Burgess PM, Wells DL, Moss SA. Impact of child sexual abuse on mental health: prospective study in males and females. *The British journal of psychiatry : the journal of mental science*. 2004;184:416-421.

23. Maniglio R. Child sexual abuse in the etiology of depression: A systematic review of reviews. *Depression and anxiety*. 2010;27(7):631-642.
24. Afari N, Ahumada SM, Wright LJ, et al. Psychological trauma and functional somatic syndromes: a systematic review and meta-analysis. *Psychosomatic medicine*. 2014;76(1):2-11.
25. Rohde P, Ichikawa L, Simon GE, et al. Associations of child sexual and physical abuse with obesity and depression in middle-aged women. *Child abuse & neglect*. 2008;32(9):878-887.
26. Thurston RC, Chang Y, Derby CA, et al. Abuse and subclinical cardiovascular disease among midlife women: the study of women's health across the nation. *Stroke*. 2014;45(8):2246-2251.
27. Suglia SF, Clark CJ, Boynton-Jarrett R, Kressin NR, Koenen KC. Child maltreatment and hypertension in young adulthood. *BMC public health*. 2014;14:1149.
28. Huang H, Yan P, Shan Z, et al. Adverse childhood experiences and risk of type 2 diabetes: A systematic review and meta-analysis. *Metabolism*. 2015;64(11):1408-1418.
29. Briere JN, Elliott DM. Immediate and Long-Term Impacts of Child Sexual Abuse. *Sexual Abuse of Children*. 1994;4(2):54-69.
30. Finkelhor D, Berliner L. Research on the Treatment of Sexually Abused Children: A Review and Recommendations. *Journal of the American Academy of Child & Adolescent Psychiatry*. 1995;34(11):1408-1423.
31. Kendall-Tackett KA, Williams LM, Finkelhor D. Impact of sexual abuse on children: a review and synthesis of recent empirical studies. *Psychol Bull*. 1993;113(1):164-180.
32. Adams JA. Medical Evaluation of Suspected Child Sexual Abuse: 2011 Update. *Journal of Child Sexual Abuse*. 2011:588-605.
33. Adams JA, Harper K, Knudson S, Revilla J. Examination Findings in Legally Confirmed Child Sexual Abuse: It's Normal to be Normal. *Pediatrics*. 1994.
34. Berenson AB, Chacko MR, Wiemann CM, Mishaw CO, Friedrich WN, Grady JJ. A case-control study of anatomic changes resulting from sexual abuse. *American journal of obstetrics and gynecology*. 2000;82(4).
35. Heger AH, Ticson L, Velasquez O, Bernier R. Children referred for possible sexual abuse: medical findings in 2384 children. *Child Abuse Negl*. 2002;26:645-659.
36. Heger AH, Ticson L, Guerra L, et al. Appearance of the Genitalia in Girls Selected for Nonabuse: Review of Hymenal Morphology and Nonspecific Findings. *J Pediatr Adolesc Gynecol*. 2002;15:27-35.
37. Friedrich WN, Urquiza AJ, Beilke RL. Behavior problems in sexually abused young children. *Journal of pediatric psychology*. 1986;11(1):47-57.
38. Mian MW, W.; Klanjer-Diamond, H.; Lebaron, D.; Winder, C. . Review of 125 children 6 years of age and under who were sexually abused. *Child abuse & neglect*. 1986;10:223-229.
39. Conte JR. The Effects of Sexual Abuse on Children: Results of a Research Project. *Annals New York Academy of Sciences*. 1988.
40. Vrolijk-Bosschaert TF, Brilleslijper-Kater SN, Widdershoven GAM, et al. Psychosocial symptoms in very young children assessed for sexual abuse: A qualitative analysis from the ASAC study. *Child abuse & neglect*. 2017;73:8-23.
41. Alisic E, Zalta AK, van Wesel F, et al. Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: meta-analysis. *The British journal of psychiatry: the journal of mental science*. 2014;204:335-340.
42. Scheeringa MS, Myers L, Putnam FW, Zeanah CH. Diagnosing PTSD in early childhood: an empirical assessment of four approaches. *J Trauma Stress*. 2012;25(4):359-367.
43. Blom M, Oberink R. The validity of the DSM-IV PTSD criteria in children and adolescents: a review. *Clinical child psychology and psychiatry*. 2012;17(4):571-601.
44. Scheeringa MS, Zeanah CH, Cohen JA. PTSD in children and adolescents: toward an empirically based algorithm. *Depression and anxiety*. 2011;28(9):770-782.
45. Feldman R, Vengrober A. Posttraumatic stress disorder in infants and young children exposed to war-related trauma. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2011;50(7):645-658.
46. Perrin S, Smith P, Yule W. Practitioner Review: The Assessment and Treatment of Post-traumatic Stress Disorder in Children and Adolescents. *J Child Psychol Psychiat*. 2000;41(3):277-289.
47. Kellogg ND, Committee on Child Abuse Neglect, American Academy of Pediatrics. Clinical report--the evaluation of sexual behaviors in children. *Pediatrics*. 2009;124(3):992-998.

48. Chaffin M, Berliner L, Block R, et al. Report of the ATSA Task Force on Children With Sexual Behavior Problems. *Child maltreatment*. 2008;13(2):199-218.
49. Everson MD, Faller KC. Base rates, multiple indicators, and comprehensive forensic evaluations: why sexualized behavior still counts in assessments of child sexual abuse allegations. *Journal of child sexual abuse*. 2012;21(1):45-71.
50. Brilleslijper-Kater SN, Friedrich WN, Corwin DL. Sexual knowledge and emotional reaction as indicators of sexual abuse in young children: theory and research challenges. *Child abuse & neglect*. 2004;28(10):1007-1017.
51. Allen B. Children with Sexual Behavior Problems: Clinical Characteristics and Relationship to Child Maltreatment. *Child psychiatry and human development*. 2017;48(2):189-199.
52. Brilleslijper-Kater SN, Baartman HEM. What do Young Children Know About Sex? Research on the Sexual Knowledge of Children Between the Ages of 2 and 6 Years. *Child Abuse Review*. 2000;9:166-182.
53. Adams JA, Farst KJ, Kellogg ND. Interpretation of Medical Findings in Suspected Child Sexual Abuse: An Update for 2018. *J Pediatr Adolesc Gynecol*. 2017.
54. Lyon TD, Ahern EC, Scurich N. Interviewing children versus tossing coins: accurately assessing the diagnosticity of children's disclosures of abuse. *J Child Sex Abus*. 2012;21(1):19-44.
55. Fontes LA, Tishelman AC. Language competence in forensic interviews for suspected child sexual abuse. *Child abuse & neglect*. 2016;58:51-62.
56. Lyon TD, Scurich N, Choi K, Handmaker S, Blank R. "How did you feel?": increasing child sexual abuse witnesses' production of evaluative information. *Law Hum Behav*. 2012;36(5):448-457.
57. Ahern EC, Stolzenberg SN, McWilliams K, Lyon TD. The Effects of Secret Instructions and Yes/no Questions on Maltreated and Non-maltreated Children's Reports of a Minor Transgression. *Behavioral sciences & the law*. 2016;34(6):784-802.
58. Royal College of Paediatric and Child Health. The Physical Signs of Child Sexual Abuse 2015. Located at: An evidence-based review and guidance for best practice, London.
59. Adams JA, Kellogg ND, Farst KJ, et al. Updated Guidelines for the Medical Assessment and Care of Children Who May Have Been Sexually Abused. *J Pediatr Adolesc Gynecol*. 2016;29(2):81-87.
60. Gulla K, Fenheim GE, Myhre AK, Lydersen S. Non-abused preschool children's perception of an anogenital examination. *Child abuse & neglect*. 2007;31(8):885-894.
61. Marks S, Lamb R, Tzioumi D. Do no more harm: The psychological stress of the medical examination for alleged child sexual abuse. *Journal of Paediatrics and Child Health*. 2009;45(3):125-132.
62. Stewart MS, Schmitz M, Steward DS, Joye NR, Reinhart M. Children's anticipation of and response to colposcopic examination. *Child abuse & neglect*. 1995;19(8):997-1005.
63. Lazebnik R, Zimet GD, Ebert J, et al. How children perceive the medical evaluation for suspected sexual abuse. *Child abuse & neglect*. 1994;18(9):739-745.
64. Rheingold AA, Davidson TM, Resnick H, Self-Brown S, Danielson CK. The relationship between knowledge and child and caregiver distress during the medical examination for child sexual abuse. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders*. 2013;22(5):552-571.
65. Friedrich WN, Fisher JL, Dittner CA, et al. Child Sexual Behavior Inventory: Normative, psychiatric, and sexual abuse comparisons. *Child maltreatment*. 2001;6(1):37-49.
66. Ham vK, Brilleslijper-Kater SN, Teeuw AH, Van der Lee JH, Rijn vRR, Goudoever vJB. Beyond words. The validation of the Sexual Knowledge Picture Instrument (SKPI) as a diagnostic instrument for child sexual abuse. in preparation.
67. Everson MD, Boat BW. Putting the anatomical doll controversy in perspective: an examination of the major uses and criticisms of the dolls in child sexual abuse evaluations. *Child abuse & neglect*. 1994;18(2):113-129.
68. Brilleslijper-Kater SN. Beyond words: Between-group differences in the ways sexually abused and nonabused preschool children reveal sexual knowledge. Enschede: Febodruk BV: Faculteit der Psychologie en Pedagogiek, Afdeling Orthopedagogiek, Vrije Universiteit Amsterdam; 2005.
69. Arata CM. From child victim to adult victim: a model for predicting sexual revictimization. *Child maltreatment*. 2000;5(1):28-38.
70. Barnes JE, Noll JG, Putnam FW, Trickett PK. Sexual and physical revictimization among victims of severe childhood sexual abuse. *Child abuse & neglect*. 2009;33(7):412-420.

71. Bramsen RH, Lasgaard M, Koss MP, Shevlin M, Elklit A, Banner J. Testing a multiple mediator model of the effect of childhood sexual abuse on adolescent sexual victimization. *The American journal of orthopsychiatry*. 2013;83(1):47-54.
72. Cohen JA, Mannarino AP, Knudsen K. Treating sexually abused children: 1 year follow-up of a randomized controlled trial. *Child abuse & neglect*. 2005;29(2):135-145.
73. Gillies D, Taylor F, Gray C, O'Brien L, D'Abrew N. Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents (Review). *Evidence-based child health : a Cochrane review journal*. 2013;8(3):1004-1116.
74. Dettmeijer-Vermeulen CE. On solid ground. Tackling sexual violence against children. [Op goede grond. De aanpak van seksueel geweld tegen kinderen.]. The Hague, The Netherlands: National Rapporteur on Trafficking in Human Beings and Sexual Violence against Children;2014.
75. Vrolijk-Bosschaart TF, Karst WA, Teeuw AH. De richtlijn Diagnostiek bij (een vermoeden van) seksueel misbruik bij kinderen. Vertaling Richtlijn naar de algemene praktijk. *Praktische Pediatrie*. 2017;1:25-28.
76. Duffy C, Keenan M, Dillenburger K. Diagnosing Child Sex Abuse: A research challenge. *International Journal of Behavioral Consultation and Therapy*. 2006;2(2):150-173.