

Do no more harm: The psychological stress of the medical examination for alleged child sexual abuse

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Aim: Currently, there is some controversy that the medical examination following allegations of child sexual abuse may further traumatise the child. Access for children to appropriate care may be hindered if decisions about referral are influenced by personal beliefs, rather than by recognition of the potential health and psychological benefits of the assessment. We aimed to study the expectations and emotional responses of children and their parents to the medical examination.

Methods: We conducted a prospective quantitative and qualitative study at the Children's Hospital at Westmead. Participants completed questionnaires pre-examination and post-examination, including Children's Anxiety and Pain Scales. Clinicians recorded a Genital Examination Distress Scale and a questionnaire about potentially prognostic variables.

Results: Parents found the medical examination significantly less stressful than they had anticipated. They highlighted the importance of being involved in the process, the child's reaction, staff attitudes and the doctor's explanations. Although most parents expected that the medical would be stressful for their child, this did not correlate with the children's reports of feeling scared beforehand. Increased parental and child distress were significantly associated with the child being 12 years or older. The type of abuse was not significantly linked to any of the parent or child self-reports.

Conclusion: Our findings indicate that the medical examination is not as stressful as expected and support the recommendation that timely medical assessment by appropriately trained professionals should be offered for all children following allegations of sexual abuse.

Key words: child abuse; examination; physical; psychological; sexual; stress.

In the evaluation of children following allegations of sexual abuse, medical professionals working in this field consider medical assessment, including anogenital examination when indicated, to be standard care.¹⁻⁴ Currently, there is some controversy that the anogenital examination may further traumatise the child.⁴⁻⁸ Misinformation and confusion exist about the purpose and nature of the examination, including perceptions that it may be invasive or frightening.^{3,9,10} Misperceptions may

be communicated with or even held by parents and carers. Decisions by referring agencies, for example, police, statutory child protection and health, may be influenced by personal beliefs rather than scientific selection criteria.^{3,11} The potential health and psychological benefits of the assessment, including reassurance for children that they are healthy and their bodies are not irreparably damaged, screening for sexually transmitted infections, pregnancy prophylaxis and the gathering of important forensic evidence, are often overlooked.^{4,12-15}

Strategies aiming to minimise any negative impact of the medical evaluation include: addressing parental anxieties, involving both parent and child in the decision whether to perform a medical (and when),¹⁶ explaining the procedure, providing anticipatory guidance that the findings may be normal¹⁷⁻²⁰ and that the examination is not being performed to 'confirm' abuse, using empowering techniques with the child, debriefing both child and parent afterwards and reassuring them about the findings.^{10,21} Sedation is used if required, but there is some reluctance to use sedation to allay fear, because the child may sense a loss of control or have an experience resembling the dissociation process that can occur during sexual abuse.^{7,8}

There is limited research on this topic. Steward *et al.*²² interviewed mothers and their daughters aged 3-15 years before and after examination concerning their knowledge and feelings about colposcopic anogenital examinations. Although they

Key Points

- 1 For parents, the medical examination following allegations of child sexual abuse was significantly less stressful than anticipated.
- 2 Increased parental distress was linked with lack of knowledge about the medical, and with the child being 12 years old or older, but not with type (severity) of abuse.
- 3 Both parents and children emphasised the importance of staff attitudes, explanations offered and the relationship between the doctor and the child. This has implications for clinician training and practice.

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found that mothers and children were poorly prepared for the examination, they concluded that the children were not retraumatised by the examination and did not consider it to be painful. While children were less distressed after the examination, their mothers' feelings did not shift, although for at least 54%, the examination provided reassurance about their child's health. Mears *et al.*²³ also found adolescents' post-examination perceptions more positive than their pre-examination anticipation.

Waibel-Duncan *et al.*⁹ found that the majority of parents/carers were inadequately prepared for their child's anogenital examination, mostly reporting that they received no information prior to the clinic visit. Many adults incorrectly assumed that there would be a relatively invasive and painful internal pelvic examination. Misconceptions and general lack of information tended to exacerbate adult feelings of powerlessness contribute to their anxiety and correspond to high levels of distress in their children. Three factors seemed to limit the adult's ability to share relevant information with their child: lack of knowledge, emotional duress (being advised to withhold information) and inability to communicate medical information to their child. Prior¹⁴ found that children wanted to be informed about the medical evaluation and that explanation served to protect against fear.

Lazebnik *et al.*²⁴ interviewed 99 children about the degree of pain and fear associated with the medical evaluation, the kindness of the doctor, general fear of doctor visits and degree of fear associated with a hypothetical second examination. Fifty-seven percent reported some pain, 14% a lot; 50% had some fear, 14% a lot. Fear was most highly related to past negative medical experiences.

The aim of this study was to examine the parent and child expectations and perceptions before and after the medical examination following allegations of sexual abuse, to test the level of parental knowledge about the nature of the examination and to assess the children's pain responses to the anogenital examination.

Materials and Methods

We conducted a prospective study over a 2-year period, from April 2002 to December 2004, with a 6-month break in 2004.

Subjects

The Child Protection Unit at The Children's Hospital at Westmead (Sydney, Australia) is a tertiary referral centre providing services to children and their families where there are concerns of child abuse and neglect. The initial assessment for child sexual abuse is provided jointly by a doctor and a sexual assault counsellor and includes a discussion about the abuse, its impact and supportive counselling. The doctor completes a standard Child Sexual Assault Medical Protocol (NSW Department of Health, 2nd edition, March 2002). The medical examination, (hereafter referred to as 'the medical'), is performed in the presence of the counsellor and usually the accompanying supportive adult. It includes a general physical examination, with inspection of the anogenital region if indicated. Speculum examination (postpubertal girls) is rarely required. The

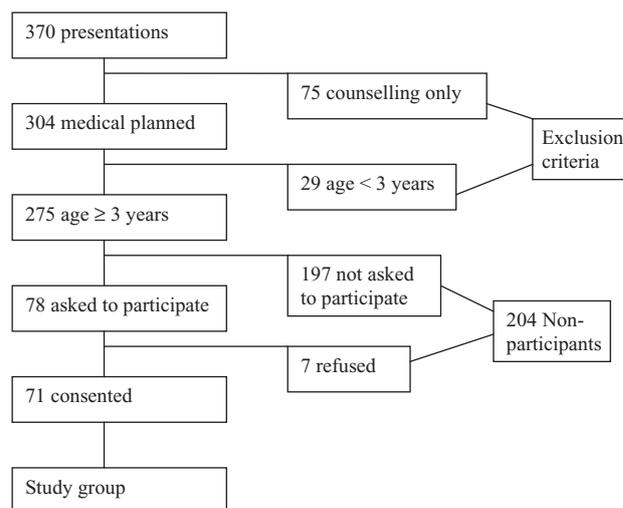


Fig. 1 Study participants.

colposcope is used as a source of light and magnification. Where indicated, specimens are collected for forensic or other laboratory investigations, including vaginal swabs and/or blood samples. Some children require injections (hepatitis B prophylaxis).

Children presenting to Child Protection Unit for assessment of suspected sexual abuse were eligible to participate in the study. Exclusion criteria were presentation for counselling only and children age less than 3 years (measurement instruments have not been validated for use in this population). There were 379 presentations for assessment of suspected child sexual abuse during the study period; 75 received counselling only and 29 were age less than 3 years, resulting in an eligible sample of 275. Of these, only 78 were approached and 71 consented to participate in the study (Fig. 1). Written informed consent was obtained from all participants and the Hospital Ethics Committee approved the study.

Measuring instruments

Participant parents or accompanying adults acting in a parental role (hereafter referred to as 'parents') were invited to complete questionnaires before and after the medical (Appendix I). Children were asked open-ended questions, to capture a range of feelings, and completed Children's Anxiety and Pain Face Scales²⁵ before and after the medical. Children's and parent's reports of pain and distress do not always agree^{26,27} and their expectations were assessed separately.

The examining doctor completed a questionnaire about potentially prognostic variables^{3,4} and recorded a Genital Examination Distress Scale (GEDS), which is a validated instrument with high interrater reliability developed to measure observations of agitated and verbally mediated emotional distress during the anogenital phase of a child sexual abuse examination. It measures the presence of seven items, including nervous behaviour, verbal pain and verbal fear.^{28,29}

Statistics

We used the chi-squared test to analyse the association between both parent and child responses to a number of variables including demographic factors, abuse-related factors and assessment-related factors. Parent responses to the questionnaires and child responses to the Children's Anxiety and Pain Scales were grouped for analysis in two different ways: 'not at all' versus 'any' (slightly, moderately, significantly and extremely) and 'not at all, slightly and moderately' versus 'significantly and extremely'. The GEDS data was analysed in relation to parent and child responses. All statistical analyses were performed with SPSS version 13.0 (SPSS Inc., Chicago, IL, USA) for Windows (2004) SPSS Inc. *P* values <0.05 were considered statistically significant.

Results

Demographic, assessment and abuse details were analysed for participants and non-participants (Table 1). There were two significant differences between the two groups: families seen on the day of referral were less likely to be asked to participate (*P* < 0.05) and participants were more likely to have a medical; 70 of the 71 participants had a medical compared with 173 of 204 non-participants (*P* < 0.01).

The study group consisted of 64 girls and seven boys; 35 were age less than 12 years, 36 were 12 years or older. The parent questionnaires were completed by 53 mothers, eight fathers,

five grandmothers and one stepfather. When asked what they thought was involved in a medical examination for child sexual assault, 61% referred to having a check-up, genital examination, tests and/or counselling; 18% did not know or were unsure and 13% mentioned an internal examination (e.g.: 'worry that it might do more damage internally'). One parent expected confirmation that the child had been touched. Four children had no parent present.

Parent reactions

Significant or extreme levels of stress were expressed before the medical by 57% of parents, but experienced by only 22% during the medical (*P* < 0.05). Many (57%) expected it to be significantly stressful for their child, only 17% found it was (*P* < 0.05). Similarly, 87% anticipated some pain for their child, but only 48% thought it was painful (*P* < 0.01) (Fig. 2).

Lack of knowledge was associated with significant levels of parental stress before the medical (*P* < 0.01). However, these parents were less likely to find the actual experience stressful for their child (*P* < 0.01) and their children were less likely to be scared during the medical (*P* < 0.01).

Parents highlighted the importance of staff attitudes (both counsellor and doctor)

- 'Calm'
- 'No apparent judgment of situation'
- doctors' explanations
- 'Being told what was happening at all times'

Table 1 Comparison of participants with eligible non-participants

	Participants <i>n</i> = 71		Non-participants <i>n</i> = 204		<i>P</i> value
	<i>n</i>	(%)	<i>n</i>	(%)	
Gender female	64	(90)	173	(85)	NS
Age 3 years to less than 12 years	35	(49)	123	(60)	NS
Age 12 years or older	36	(51)	81	(40)	NS
Identified as Aboriginal	4	(6)	16	(8)	NS
Non-English speaking background	4	(6)	17	(8)	NS
Living with family/relatives	69	(97)	193	(95)	NS
No support person present	4	(6)	17	(8)	NS
Seen on day of referral	33	(47)	126	(62)	<0.05
Out of hours presentation	15	(21)	64	(31)	NS
No disclosure	1	(1)	13	(6)	NS
Penetrative abuse	51	(73)	131	(69)	NS
Abuse: touched genital region	13	(19)	27	(14)	NS
Abuse details unclear	5	(7)	16	(8)	NS
Most recent abuse <1 week ago	35	(50)	103	(54)	NS
Only one incident abuse disclosed	36	(51)	109	(57)	NS
Offender male(s)	66	(94)	181	(95)	NS
Offender related to child	21	(30)	55	(29)	NS
Offender known to child	50	(71)	152	(80)	NS
Medical done*	70	(99)	173	(91)	<0.01
Forensic swabs collected	29	(41)	49	(26)	<0.01

*One child who consented to the study refused to be medically examined. NS, not significant.

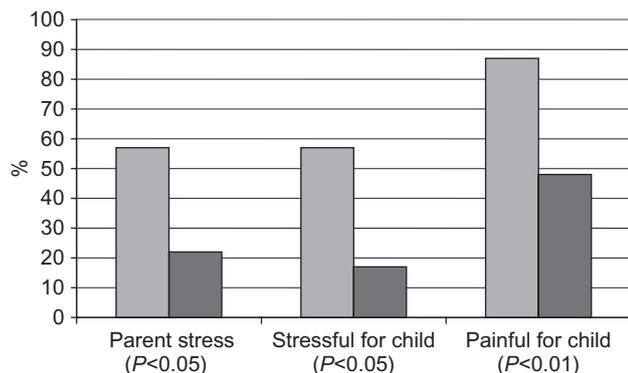


Fig. 2 Parent responses. (□) Before and (■) after.

and the child's reaction

- 'Listening to how uncomfortable she was'
- 'Seeing her smile'
- 'Not seeing her in pain'

There was a significant correlation between parents experiencing significant stress and their child feeling scared during the medical ($P < 0.05$).

Involvement in the process was important for parents

- 'When I was holding her hand and giving her a cuddle'
- Parents who were not present during the medical were more likely to expect and perceive that it was painful (both $P < 0.05$).
- 'The fact that I wasn't able to see or hold on to her. I was in tears. Trouble breathing.' (This parent had been asked to leave the room by the child)

Child responses

Although 97% of parents expected the medical would be stressful for their child, only 66% of children reported feeling scared before the medical ($P < 0.05$). Negative feelings expressed by children (54%) included embarrassment

- '... I don't want anyone looking at my body ...'
- references to medical equipment and procedures
- 'Not actually feeling ready for anything touching me down there and that it may hurt a bit'
 - 'I didn't want to have it because last time there was a video'
 - 'All those medical tools and if anything they do will hurt' the 'unknown'
 - 'I feel scared about it because I don't know what's going to happen'

and the outcome

- 'I feel a bit worried and frightened because of the results'
- 'I feel scared frightened and worried because I think that nobody would believe me'

A positive response was given by 24%

- 'I am feeling confident about this checkup. I am okay with what will come out of it'

Children experienced less pain and felt less scared than they had anticipated, but the differences were not statistically significant. Important alleviating factors for children included their support person

- 'Me relaxing having Mum there'

- 'Sitting on Mummy's lap'
- the doctor's explanations
- 'I felt better when she (doctor) talked me through the checkup'
 - 'The way the doctors told me that it wasn't going to hurt' and the feedback
 - '... that I was normal like any other person'
 - '... that the doc told me I was okay'
 - 'The fact that I was all clear'
- Most children (76%) indicated that nothing had made it worse
- 'No, it was all better than I thought'
- Negative comments referred mainly to injections and blood tests rather than to the anogenital phase of the examination.

GEDS

Clinician observations were not significantly linked to the child's age or findings, but nervous behaviour and verbal statements of pain were reported more often when the abuse was penetrative ($P < 0.05$). Four of the ten children who expressed verbal pain during the medical did not report any pain when questioned afterwards. Verbal statements of fear were less likely if the mother was present during the medical ($P < 0.01$).

Other contributing factors

Increased parental and child distress were significantly associated with the child being 12 years and older ($P < 0.01$). Older children were more likely to understand why they were having a medical ($P < 0.01$), have concerns about their body ($P < 0.01$), have physical findings on genital examination (genital findings) ($P < 0.05$), acute physical findings elsewhere on their body (non-genital findings) ($P < 0.01$) and collection of forensic swabs ($P < 0.01$). However, 40% of children age under 12 years also had genital findings on examination, although some of these findings were non-specific.

Penetrative abuse was alleged by 32/36 older children and 19/35 younger children ($P < 0.01$), but the type of abuse was not significantly linked to any of the parent or child responses or to the presence of findings.

Other factors that were significantly associated with increased parent or child reports of stress and pain included: parental intellectual disability, child intellectual disability, only one incident of abuse, report of pain during the abuse, referral by police or statutory child protection, child expressed concerns about their body, presence of genital findings, collection of forensic swabs and having blood collected or injections given (Tables 2–4).

Factors associated with less stress or pain included: the alleged offender living with or being related to the child, examination by a paediatric trainee, use of the colposcope and use of the knee-chest position during the examination (Tables 3 and 4).

Factors that were not statistically significant included the use of verbal threats or physical violence by the offender, assessment outside normal working hours, disclosed history of previous sexual assault of the accompanying adult, past painful medical procedures and the presence of acute non-genital findings on examination (Tables 3 and 4).

Table 2 Association between demographic factors and parent and child responses about medical

Factor	Yes (%)	Significant associations
Gender female	90	NS
Age 12 years or older	51	Parent expected stressful for child $P < 0.05$ Parent thought stressful for child $P < 0.01$ Parent expected painful for child $P < 0.05$ Parent thought painful for child $P < 0.01$ Parent found stressful $P < 0.05$ Child expected painful $P < 0.01$ Child scared before $P < 0.01$ Child scared during $P < 0.05$
Identified as Aboriginal	6	NS
Non-English speaking background	6	NS
Living with family/relatives	97	NS
Parent intellectual disability	7	Parent found significantly stressful $P < 0.05$
Child intellectual disability	10	Child expected painful $P < 0.05$ Child found painful $P < 0.05$ Child scared before $P < 0.05$ Child scared during $P < 0.05$

NS, not significant.

Discussion

This is a prospective study of the impact of the medical examination following allegations of child sexual abuse. Our findings show that the medical examination is not as stressful as expected.

Parents showed a significant shift, perceiving and observing less pain and stress for their child than they had anticipated and experiencing lower levels of personal stress than they predicted. Overall, children were less distressed than their parents, similar to Waibel-Duncan's finding³⁰ that children had relatively low levels of worry about the medical and were not concerned about their parent's emotional distress during the medical. Our qualitative data suggest that the child's reaction had a significant effect on parental perception: when the parent observed that their child did not show distress, the parent was able to calm down.

Parents who were not present during the medical were more likely to perceive that it was painful. The parent's own past experiences may be relevant, as well as the specific dynamic that led to them not being in the room, but this finding also supports the view that the examination process can potentially allay parental anxieties and offer reassurance. Several children specifically indicated that having their mother there made it less stressful. Children were less likely to express verbal fear if their mother was present. While one would assume that children are less distressed if their parents are present, an alternative explanation could be that children may be reluctant to express fear in case they upset their parent. Gully²⁸ found that verbal expression of fear was linked with increased age of the child, but our clinician observations were not significantly linked to the child's age.

Table 3 Association between abuse-related factors and parent and child responses about the medical

Factor	%			Significant associations
	Yes	No	No data	
Alleged offender male(s)	93	1	6	*
Alleged offender lived with child (or visiting family)	31	65	4	Parent expected less stressful for child $P < 0.05$
Alleged offender related to child, including step relations – penetration was less likely if offender related ($P < 0.01$)	30	65	6	Parent thought less painful for child $P < 0.05$ Parent found less stressful $P < 0.01$ Child expected less painful $P < 0.05$ Child less scared before $P < 0.05$
Alleged offender previously known to child	70	20	10	NS
Penetrative abuse	72	18	10	NS
Abuse: touched genital region	18			NS
Only one incident abuse (vs. >1 incident)	51	41	8	Parent expected stressful for child $P < 0.05$ Parent expected painful for child $P < 0.05$ Parent thought painful for child $P < 0.01$ Child expected painful $P < 0.01$ Child scared before $P < 0.01$
Most recent abuse <1 week ago	49	39	11	NS
Report of pain during abuse	35	24	41	Parent less stressed before $P < 0.05$ Child found significantly painful $P < 0.05$ Child significantly scared during $P < 0.05$
Verbal threats by offender	30	30	41	NS
Physical violence by offender	18	41	41	NS

*Sample size too small for statistical testing. NS, not significant.

Table 4 Association between assessment-related factors and parent and child responses about the medical

Factor	Yes %	No	No data	Significant associations
Referred by police/statutory child protection (vs. by health or family member)	46	54	0	Parent stressed before $P < 0.05$ Parent found stressful $P < 0.05$ Child expected painful $P < 0.01$
Seen on day of referral	47	53	0	NS
Medical out of hours	21	79	0	NS
Examiner female	99	1	0	*
Examiner was paediatric trainee	16	84	0	Parent less stressed before $P < 0.05$
Health witness male	13	87	0	NS
No family support present for medical (all were age ≥ 12 years)	17	83	0	Parent expected significantly painful for child $P < 0.05$ Parent thought painful for child $P < 0.05$ Parent thought stressful for child $P < 0.01$
Mother not present during medical	30	70	0	NS
Disclosed history of previous sexual assault of accompanying adult	32	14	54	NS
Adult belief medical would confirm abuse	24	30	46	Child less scared during $P < 0.05$
Previous medical for child sexual abuse	8	0	92	Child scared during $P < 0.01$
Past painful medical procedures	31	51	18	NS
Child had understanding why there	69	18	13	Child scared during $P < 0.01$
Child expressed concerns about their body	41	35	24	Parent thought stressful for child $P < 0.05$ Parent thought painful for child $P < 0.01$ Parent found stressful $P < 0.05$ Child scared before $P < 0.01$ Child expected significantly painful $P < 0.05$
Colposcope used	25	75	0	Parent less stressed before ($P < 0.01$)
Colposcopy photos taken	4	96	0	*
Knee-chest position used	8	89	3	Parent found less stressful $P < 0.01$
Forensic kit collected	41	59	0	Parent thought painful for child $P < 0.05$ Parent found stressful $P < 0.05$ Child scared before $P < 0.05$
Blood taken/injections given	48	52	0	Parent thought stressful for child $P < 0.01$ Parent thought painful for child $P < 0.01$ Child found painful $P < 0.05$ Child scared before $P < 0.01$ Child scared during $P < 0.01$
Genital findings	46	51	3	Parent expected painful for child $P < 0.05$ Parent found significantly stressful $P < 0.05$
Acute non-genital findings (e.g. abrasions, bruises, burns, bites)	13	87	0	NS

*Sample size too small for statistical testing. NS, not significant.

Waibel-Duncan reported that older children were more concerned about the potential impact, findings and their privacy during the medical, while younger children were more interested in procedural information.³¹ She found increased adult distress was associated with younger aged children.³² In contrast, we found greater parent and child distress when the child was 12 years or older. Possible explanations include developmental factors, greater parental identification with older children and issues around privacy and embarrassment. Older children had more medical findings, more acute trauma and more forensic swabs collected, factors that could be associated with increased discomfort during examination, but also with greater distress because of the potential criminal, legal and personal implications.

Severity of abuse was not significantly associated with any of our parent or child responses. Allard-Dansereau *et al.*³³ made a

similar finding. This suggests that it is the very fact that there was abuse (rather than the specific details) and that a medical is needed (rather than what the doctor actually does) that is stressful for parent and child. In contrast, clinician report of nervous behaviour was more likely if the abuse was penetrative. This raises the question whether clinicians' individual beliefs and personal experiences may influence their interpretation of the child's behaviour. Another possibility is that children may dissociate during the medical and not be in touch with their true feelings, while the clinician is recording what actually happened.^{3,8} Interestingly, four children expressed verbal pain during the medical but not on questioning afterwards, which would support this explanation.

Similarly to Allard-Dansereau,³³ our findings suggested that physician behaviour had an influence on the child's degree of distress. The emphasis parents and children placed on staff

attitudes, explanations offered and the relationship between doctor and child has implications for clinician training and practice. The medical for child sexual assault requires appropriate examination technique, but more importantly, interpersonal skills including communication, empathy, ability to assess and respond to individual parent and child reactions and anxieties, sensitivity and the use of strategies to help the child relax and feel more in control.^{2-5,10,21}

Parents were less stressed when the doctor was a paediatric trainee. This may reflect case selection bias for trainees, but also offers reassurance that trainees who have been through an appropriate training programme can effectively conduct child sexual abuse medical examinations. It was also interesting to note that use of the colposcope and/or the knee-chest position were not associated with increased reports of distress.

Our data linked parental stress to lack of knowledge about the medical examination. However, this lack of knowledge also correlated with both parent and child finding the actual examination experience less stressful. This raises issues about the timing and content of information provided to parents and children prior to attending for medical assessment. Increased education of staff in referring agencies is important to minimise inaccuracies and misconceptions about the medical examination. The development of referrer and parent education materials may be useful, but it is not clear how best to incorporate this into current practice, particularly for urgent referrals.

The main limitation of this prospective study is the low participation rate of eligible subjects. This may have introduced significant selection bias. The main reason for low participation was that staff did not invite families to participate. Factors that contributed to non-recruitment included frequent changes in staff members, staff not considering the study at the time of presentation, individual case characteristics (e.g. lack of clarity around the reasons for presentation), staff anxieties about the impact of research on families and the perception that families were too distressed to be asked. However, we believe that this does not detract from our finding that the medical examination was less stressful than expected, because our study group reported a very high level of significant or extreme parental distress prior to the examination. In addition, we included patients who presented acutely or after hours, in contrast to previous research in this area that has focused on booked presentations.^{9,24,30,31} This may have resulted in a more representative sample.

A further limitation is the generalisability of the results, as this study was conducted in a tertiary paediatric hospital in a specialist child protection service. The data may not extrapolate to other clinical services or to examination by staff with less experience or inadequate supervision.

Future research and quality assurance activities could include collecting qualitative data about the information parents would find useful, developing and implementing information packs and repeating a modified study to assess the impact of these changes. We could also look at the impact of colposcopic photography, which is used more frequently now than during the study period.³⁴

In summary, the findings from this study challenge the hypothesis that the medical examination for assessment of allegations of child sexual abuse may further traumatise the child

and show that the medical is not as stressful as expected and is often reassuring. They support offering timely medical assessment for all children following allegations of sexual abuse.

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Appendix I

Parent questionnaires

(A) Before the medical examination

- What do you think is involved in a medical examination for child sexual assault?
(Open ended question)
- How stressful do you think the medical examination will be for your child?
Not at all Slightly Moderately Significantly Extremely
(Circle one answer)
- How painful do you think the examination will be?
Not at all Slightly Moderately Significantly Extremely
- How stressed are you feeling about your child having a medical examination?
Not at all Slightly Moderately Significantly Extremely

(B) After the medical examination

- How stressful do you think the medical examination was for your child?
Not at all Slightly Moderately Significantly Extremely
- How painful do you think the examination was?
Not at all Slightly Moderately Significantly Extremely
- How stressful did you find the medical examination?
Not at all Slightly Moderately Significantly Extremely
- What made the medical examination more stressful for you?
- What made the medical examination less stressful?