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Research article

A review of the literature on good practice considerations for initial health system response to child and adolescent sexual abuse

Elena T. Broaddus-Shea^{a,*}, Kerry Scott^b, Megin Reijnders^c, Avni Amin^c^a Department of Family Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO, USA^b Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA^c Department of Reproductive Health and Research, World Health Organization, Avenue Appia 20, 1211 Geneva 27, Switzerland

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ABSTRACT

Background: Healthcare workers play an important role in responding to the needs of the millions of children and adolescents who experience sexual abuse around the globe. A supportive child and adolescent-centered initial response is crucial for the physical and emotional wellbeing of survivors.

Objective: In 2017, the World Health Organization (WHO) published clinical guidelines for responding to child and adolescent sexual abuse. The review described in this paper informed the development of good practice statements on how best to deliver health care to survivors.

Participants and setting: This review examined the values and preferences of children and adolescents who were sexually abused, and of their caregivers and healthcare workers, regarding: 1) initial response to children and adolescents who have been sexually abused; and 2) obtaining medical history, conducting physical examination, and documenting examination findings.

Methods: Searches were conducted in Scopus, Pubmed, and the WHO's Global Index Medicus (1 January, 1995–15 July 2016). All articles in English that indicated preferences of survivors, caregivers and/or healthcare workers in ensuring empathetic and trauma-informed care were included.

Results: Sixty-two articles were included and analyzed thematically. Key findings included the importance of providing care to survivors in a manner that respects the child or adolescent's autonomy and wishes, ensures privacy and confidentiality, and makes services and facilities appropriate and welcoming.

Conclusions: Findings indicate how evidence-based recommendations can be delivered in a child or adolescent-centred and trauma-informed manner.

1. Introduction

Globally, children and adolescents experience sexual abuse at an alarming rate. Meta-analyses estimate that 18% of girls and nearly 8% of boys will experience some form of sexual abuse during their childhood, including sexual assault or rape (Stoltenborgh, Bakermans-Kranenburg, Alink, & IJzendoorn, 2015). Prevalence rates in low- and middle-income country (LMIC) settings are estimated to be even higher. A study conducted in Cambodia, Haiti, Kenya, Malawi, Swaziland, Tanzania, and Zimbabwe indicated that over 25% of children and youth had experienced some form of sexual violence, and the rate was as high as 37.6% among girls in Swaziland (Sumner et al., 2015).

* Corresponding author at: PO Box 5093, Eagle, CO, USA.

E-mail address: elena.broaddus@cuanschutz.edu (E.T. Broaddus-Shea).

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Children and adolescents exposed to sexual abuse are at risk for a wide range of immediate and long-term negative health impacts, including physical, psychological, behavioral, and sexual ill health (Maniglio, 2009). Research indicates that survivors of childhood sexual abuse may exhibit changes in neurological brain structures and are more likely to experience anxiety, depression, substance abuse, and other mental and behavioral problems (Blanco et al., 2015). Ensuring that children and adolescents who have or may have been exposed to sexual abuse receive early and effective trauma-informed medical and psychological care is therefore crucial, and health workers play an essential role in this response (Blanco et al., 2015; Ko et al., 2008; Veenema, Thornton, & Corley, 2015).

To inform the World Health Organization (WHO)'s 2017 guidelines on responding to children and adolescents who have been sexually abused (World Health Organization, 2017), a review was commissioned to examine the values and preferences of survivors, their caregivers and healthcare workers. This paper describes some of the findings of this review.

In particular, it focuses on the following two research questions:

- 1 What are the guiding principles for a child- and adolescent-centered and gender-sensitive initial response to those who have or may have been sexually abused?
- 2 What are child- and adolescent-centered, gender-sensitive and trauma-informed clinical care practices to: a) obtain medical history and conduct forensic interviewing; b) conduct a physical exam and forensic investigation; c) document medical history and physical and forensic examination findings?

2. Methods

2.1. Search strategy

Three databases were searched: Scopus, Pubmed, and the WHO's Global Index Medicus. We selected keyword search terms based on concepts in each research question. These concepts included "child or adolescent," "sexual assault," "health care," "first line or initial response," "preferred or best practice," and "medical information and documentation." The final set of search terms was reviewed by a public health informationist and is included as supplementary material. Four different searches were run in Scopus using combinations of the keyword terms corresponding to each question. We then translated these searches into syntax appropriate for the other two databases and ran them with the addition of a filter to target literature from low- and middle-income countries. All hits published between January 1st, 1995 to July 15th, 2016 were retrieved from the three databases and exported to Endnote (version X7) (Thomson Reuters, 2016). After removing duplicates, the titles, authors, abstracts, and journal titles for all unique references were exported to Microsoft Excel for screening.

This search also included a scoping review to identify articles on two further topics: increasing timely uptake of health services among children and adolescents who experience sexual abuse, and creating an enabling health system environment to support providers in treating child and adolescent sexual abuse survivors. These articles were analyzed separately and are presented in a longer report; however they are not included in this manuscript.

2.2. Inclusion and exclusion criteria

Articles were included if they met any of the following four criteria: (1) Primary research on values and preferences for a child and adolescent-centered and gender-sensitive initial response to those who have or may have been sexually abused; (2) Primary research on health care initial responses to children or adolescents who have or may have been sexually abused, including: resources on best practices to obtain medical history, conduct forensic interviewing, conduct a physical examination and conduct forensic investigation and resources on the documentation of the medical history, physical and forensic examination findings.

Exclusion criteria were: (1) Articles on the prevention of sexual assault; (2) Resources on the treatment and rehabilitation of sexual assault perpetrators; (3) Articles focused on adults who have experienced sexual assault (including adult survivors of child sexual abuse); (4) Articles focusing on the long term rehabilitation or life experiences of child sexual abuse survivors; (5) Articles on predicting risk for sexual assault; (6) Non evidence-based material, such as commentaries, editorials or calls for future research; (7) Articles focusing on non-sexual abuse; (8) Studies documenting or assessing the extent of the problem; (9) Medical case reports of individual children or adolescents who have experienced sexual abuse; (10) Literature not in English; and (11) Articles not accessible in softcopy within two weeks of a request from the copyright library.

2.3. Screening, data extraction, and analysis

Three researchers conducted an initial title and abstract screening. The first 20% of the titles and abstracts were allocated to two of the three reviewers and screened by both to identify and resolve any differences in the application to the inclusion and exclusion criteria. The remaining titles and abstracts were allocated to one of the three screeners for assessment. The full texts of articles that passed through the initial screening were retrieved and screened a second time by two of the three reviewers. Articles meeting the inclusion criteria were retained for inclusion in the study and passed on to the data extraction phase.

We extracted data on: (1) general characteristics, (2) article summary, and (3) specific findings relevant to the research questions. General characteristics included: study location, type of participants (i.e. children/adolescents, caregivers, or providers); age group of children/adolescents (i.e. children, adolescents, or mixed), and sex of participants. The article summary consisted of: research

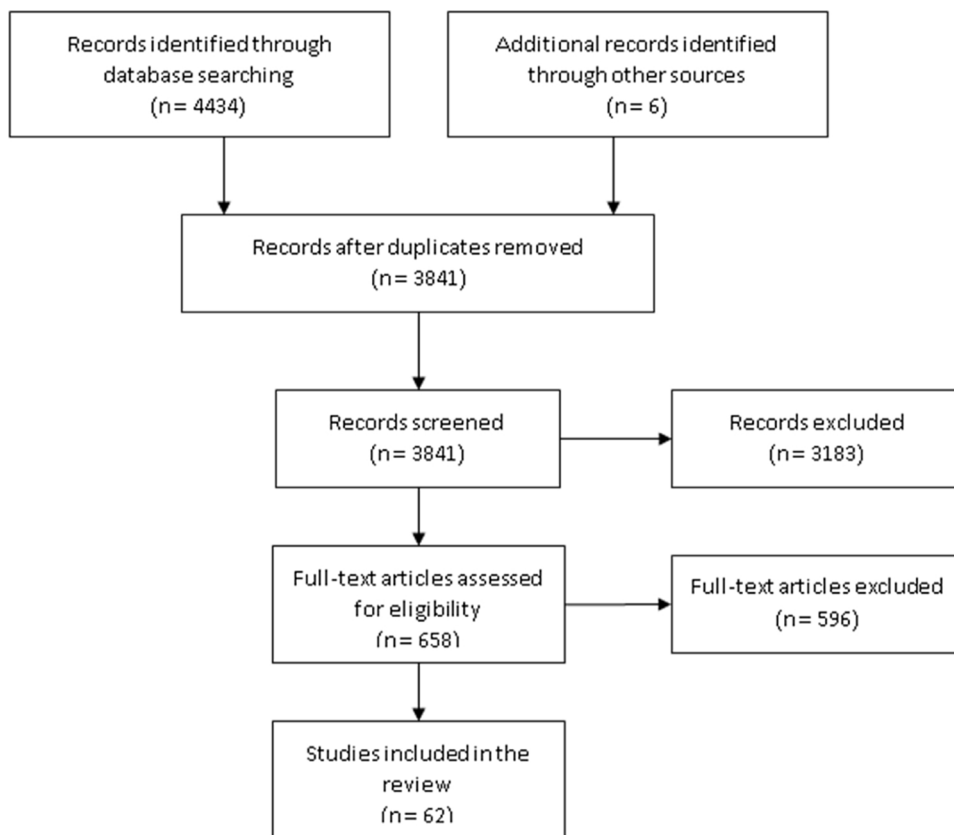


Fig. 1. PRISMA diagram of literature search and selection process.

methodology (qualitative, quantitative or record review; details on research, including sample size), specific research question or objective of the article and main findings.

Relevant extracted data for each article was compiled according to the research question that it corresponded to. We then conducted an iterative thematic analysis of the data available for each question. After identifying key themes within the primary literature data, we examined how each of these themes was articulated in the context of response to child and/or adolescent sexual abuse.

3. Findings

As shown in the PRISMA flow diagram in Fig. 1, a total of 3841 unique references were identified, 658 of which were included after initial title and abstract screening. Full-text review resulted in the removal of another 596 references, yielding 62 articles that met the inclusion criteria. Tables providing detailed information for each article are available as supplementary material.

Characteristics of studies corresponding to each research question are summarized in Table 1. The majority of the studies were carried out in high-income countries. For most questions, we reviewed a combination of quantitative and qualitative studies as well as some that used a mixed-methods approach or reviewed routine data and records. Most focused on child or adolescent survivors of sexual abuse, except for studies corresponding to the documentation of medical history and examination findings where the study participants were usually healthcare workers. Most studies also included both children and adolescents who had been sexually abused and included both boys and girls, although examination of sex breakdowns within studies indicated that the majority of participants were usually female.

3.1. Findings for question 1. Guiding principles for initial response to sexual abuse

From 22 studies that included findings responding to the first research question, thematic analysis identified ten themes on principles for how clinical care should be delivered to sexually abused children and adolescents. Table 2 presents these themes. These broad principles apply to all aspects of the clinical response. They are therefore, echoed for findings that correspond to how to obtain medical history, conduct examinations and document evidence.

Table 1
Characteristics of studies included in review for each research question*.

	Number Studies	Location	Methodology	Focal Group**	Ages of Survivors Addressed	Gender of Survivors Addressed
Q1	22	16 High-Income (7 USA; 2 UK; 2 Canada; 2 New Zealand; 1 Australia; 1 France; 1 Hong Kong) 6 LMIC (3 South Africa; 2 India; 1 Kenya)	7 Qualitative 7 Quantitative 4 Mixed-Method 4 Record Reviews	16 Child or Adolescent Abuse Survivors 9 Caregivers 3 Healthcare Workers 4 Record Reviews	15 Children and Adolescents 3 Adolescents 2 Children 2 Do Not Specify	13 Male and Female 3 Female 6 Do Not Specify
Q2A	19	17 High-Income (9 USA; 6 Israel; 2 Canada) 2 LMIC (1 South Africa; 1 Malaysia)	12 Quantitative 5 Qualitative 2 Mixed-Methods	18 Child or Adolescent Survivors 2 Healthcare Workers 1 Caregivers	9 Children 8 Children and Adolescents 1 Does not Specify	17 Male and Female 2 Female
Q2B	26	23 high-Income (17 USA; 2 Israel; 1 Australia; 1 France; 1 Norway; 1 New Zealand) 3 LMIC (1 South Africa; 1 India; 1 Malaysia)	17 Quantitative 6 Qualitative 2 Mixed-Methods 1 Record Review	24 Child or Adolescent Survivors 9 Caregivers 2 Healthcare Workers 2 Non-abused Children or Adolescents	18 Children and Adolescents 2 Children 1 Adolescents 4 Do Not Specify 2 Age Not Applicable	14 Male and Female 11 Female 1 Did not Specify
Q2C	12	10 High-Income (5 USA; 2 UK; 2 New Zealand; 1 Canada) 2 LMIC (1 India; 1 Philippines)	4 Record Reviews 3 Quantitative 2 Qualitative 3 Mixed-Methods	7 Healthcare Workers 4 Child or Adolescent Survivors 2 Caregivers 4 Record Reviews	7 Children and Adolescents 2 Children 1 Adolescents 2 Age Not Applicable	6 Male and Female 2 Female 7 Do Not Specify 2 Gender Not Applicable

* Author information and other detailed information for each article is available in the supplementary material.

** Because studies often had more than one focal population, these numbers sum to more than the total number of studies.

Table 2
Key themes describing principles for initial response.

Emergent themes regarding child and caregiver preferences for initial response	Primary sources
<ul style="list-style-type: none"> Receiving clear information and explanation about what to expect during the initial response process, future steps, and any follow-up 	(Campbell et al., 2013; Collings, 2011; Davies & Seymour, 2001; Davies et al., 2001; Du Mont, Macdonald, Kosa, & Smith, 2016; Jones, Cross, Walsh, & Simone, 2007)
<ul style="list-style-type: none"> Receiving timely care without having to endure long wait times or delays in initiation of medical treatment 	(Davies et al., 2001; Du Mont et al., 2016, 2014; Röhrs, 2011; Wangamati et al., 2016; Watkeys, Price, Upton, & Maddocks, 2008)
<ul style="list-style-type: none"> Having confidentiality & privacy respected, including while waiting to be seen, and concerns about confidentiality addressed 	(Du Mont et al., 2014; Röhrs, 2011; Wangamati et al., 2016)
<ul style="list-style-type: none"> Having their autonomy and wishes respected, including not feeling pressured to disclose information or undergo procedures 	(Campbell et al., 2013; Collings, 2011; Davies et al., 2001; Du Mont et al., 2016; Wangamati et al., 2016)
<ul style="list-style-type: none"> Receiving a non-judgmental response that communicates that the survivor is believed 	(Campbell et al., 2013; Collings, 2011; Du Mont et al., 2016; Jones et al., 2010) ¹⁵
<ul style="list-style-type: none"> Receiving a response that prioritizes the child or adolescent's safety and needs and ensures that no further harm occurs 	(Collings, 2011; Palusci, Cox, Shatz, & Schultze, 2006)
<ul style="list-style-type: none"> Being carefully and respectfully listened to by health workers, including positive affirmation about their decision to disclose if the child or adolescent discloses abuse 	(Campbell et al., 2013; Du Mont et al., 2016; Jones et al., 2010)
<ul style="list-style-type: none"> Receiving psychosocial support (including efforts to absolve any feelings of guilt or blame) for both the child and caregiver, and receiving resources for the caregiver that will ensure they are equipped to support the child emotionally 	(Campbell et al., 2013; Denis et al., 2016; Du Mont et al., 2016, 2014; Jones et al., 2010; Rosenthal, Feiring, & Taska, 2003; Runyon, Spandorfer, & Schroeder, 2014; Sowmya, Seshadri, Srinath, Girimaji, & Sagar, 2016; Wangamati et al., 2016)
<ul style="list-style-type: none"> Having assessment and treatment of the child or adolescent's medical and psychological needs prioritized, including any injuries or conditions unrelated to abuse 	(Denis et al., 2016; Girardet et al., 2006; Röhrs, 2011; Sowmya et al., 2016)
<ul style="list-style-type: none"> Being in an environment that is as un-intimidating and appealing to children as possible (child-friendly) 	(Jones et al., 2010, 2007)

3.2. Findings for question 2a. Obtaining medical history and forensic interviewing

3.2.1. Importance of rapport

Four studies from Israel and one from the United States documented the importance of interviewers building rapport with child or adolescent abuse survivors (Ahern, Hershkowitz, Lamb, Blasbalg, & Winstanley, 2014; Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006; Hershkowitz, 2009; Jones et al., 2010; Katz, 2015). Findings from these studies highlight that children and adolescents feel more comfortable and are more likely to share information if they are asked open-ended questions about themselves and neutral events prior to starting the substantive portion of a forensic interview (Ahern et al., 2014; Hershkowitz et al., 2006;

Hershkowitz, 2009; Jones et al., 2010; Katz, 2015).

3.2.2. *Feeling supported and not judged*

A total of 9 studies reported findings that indicate the importance of a non-judgemental response. These included eight studies from high-income countries—Israel (N = 4), the United States (N = 3), and Canada (N = 1)—and one study from Malaysia. These studies documented the importance of interviewers making supportive comments, including affirming the child or adolescent's emotions and information provided in response to questions (Ahern et al., 2014; Anderson, Anderson, & Gilgun, 2014; Hershkowitz et al., 2006; Hershkowitz, 2009; Katz, 2015; Lewy, Cyr, & Dion, 2015; Teoh & Lamb, 2013). One study from South Africa found that many child and adolescent rape survivors found the forensic interview beneficial when interviewers listened to them and gave them an opportunity to talk about their experience (Collings, 2011). Another study of US adolescent female rape survivors' experiences indicated the importance of providers being non-judgmental and not placing any blame on the survivor, particularly if she disclosed that drug or alcohol use preceded the assault (Campbell, Greeson, & Fehler-Cabral, 2013). Two studies from the US found that sexually abused children and adolescents often did not display strong emotions during forensic interviews, indicating that interviewers should not make assumptions about the veracity of the account based on a child's outward emotional condition (Castelli & Goodman, 2014; Sayfan, Mitchell, Goodman, Eisen, & Qin, 2008).

3.2.3. *Importance of clear, open-ended questions and non-repetition*

Three studies, all from the US, indicated that children and adolescents feel more comfortable and are more likely to share information if interviewers ask clearly worded, open-ended questions, check for understanding, and explain questions as much as needed (Anderson et al., 2014; Andrews & Lamb, 2014; Jones et al., 2010). Two of these also emphasized that questions should only be repeated if necessary due to lack of understanding (Andrews & Lamb, 2014; Jones et al., 2010), and one documented children's and adolescent's preferences to only have to answer questions and provide information once (Jones et al., 2010). Research in India also documented that adolescents were distressed by repeated questioning (Centre for Enquiry into Health and Allied Themes (CEHAT), 2012).

3.2.4. *Being asked questions in language of preference*

In one study from the US, service providers asserted the importance of conducting interviews in the child or adolescent's language of preference (Fontes & Tishelman, 2016). They also explained that there is a need to ensure that interpreters are well-trained on forensic interviewing.

3.2.5. *Having a sense of autonomy and control*

Two studies, one from the US and one from Israel, documented youth's preferences to have a sense of control over when and how they answered questions (Jones et al., 2010; Katz, 2015). Youth preferred not to be pushed to answer questions until they were comfortable, and to be able to answer questions in non-verbal ways.

3.2.6. *Importance of a child-friendly environment*

In one study from the US, youth explained that they preferred to have the option of drawing during an interview, and felt more comfortable if there were games and books available to them in the interview room (Jones et al., 2010). Similarly, a study from Israel found that children who were encouraged to draw during forensic interviews later described the interview as a more positive experience and reported more feelings of hope and success than children who did not draw (Katz, Barnett, & Hershkowitz, 2014). Another study from the US found that incorporating certified therapy canines into interviews buffered the stress that children experienced (Krause-Parello & Friedmann, 2014).

3.3. *Findings for question 2b: preferences for conducting a physical exam and forensic investigation*

In addition to the findings in 2a, the following apply to the physical exam specifically.

3.3.1. *The importance of a holistic assessment*

Findings from four studies from high income countries and one study from South Africa indicated the importance of the exam being an opportunity for child sexual abuse survivors and their caregivers to be reassured that they are physically well and as an initial step towards healing (Collings, 2011; Davies, Seymour, & Read, 2001; Duncan & Sanger, 2004; Marks, Lamb, & Tzioumi, 2009; Waibel-Duncan, 2004). Additionally, one study from France found that the primary concern of adolescents and young adults seeking care following a sexual assault was for trauma care and psychological support (Denis, Seyller, & Chariot, 2016). Finally, a study from the US found that among children and adolescents who underwent medical exams after alleged sexual assault, 26% had undiagnosed medical or psychological conditions that required intervention, while only 9% had physical findings indicative of abuse, demonstrating that unmet health needs may be as, if not more, common as forensic findings for alleged survivors of sexual abuse (Girardet, Giacobbe, Bolton, Lahoti, & McNeese, 2006).

3.3.2. *Concerns about delays in examination*

Little literature exists regarding child and caregiver preferences and experiences regarding optimal timing of exam, or timing in relation to potential harms or trauma to children. However, one study from New Zealand documented caregivers' concerns regarding

long delays prior to the exam (Davies et al., 2001).

3.3.3. *Fear and distress from not knowing what to expect from the examination*

Many studies from high-income countries and two from low-income countries (Kenya and South Africa), documented the fear and distress that child and adolescent sexual assault survivors feel in relation to not knowing what to expect next and the lack of knowledge about the exam (Marks et al., 2009; Collings, 2011; Davies et al., 2001; Duncan & Sanger, 2004; Gulla, Fenheim, Myhre, & Lydersen, 2007; Waibel-Duncan, 2001; Wangamati, Combs Thorsen, Gele, & Sundby, 2016). Multiple studies, including the previously mentioned two from Kenya and South Africa, indicate that survivors and caregivers prefer to feel that they are able to make a choice about having the exam and to have a sense of control over it (Collings, 2011; Davies et al., 2001; Mears, Heflin, Finkel, Deblinger, & Steer, 2003; Palusci & Cyrus, 2001; Waibel-Duncan, 2004; Wangamati et al., 2016). Two studies from the US and Israel found that having a supportive caregiver or other supportive adult in the room during the exam was helpful for the child's wellbeing (Marks et al., 2009; Ofir, Tener, Lev-Wiesel, On, & Lang-Franco, 2016). One study found that having a male care provider present in the examination room was a source of concern for prepubescent and pubescent girls (Waibel-Duncan & Sanger, 1999). In another study, respondents indicated their preference for a female examiner (Steward, Schmitz, Steward, Joye, & Reinhart, 1995).

3.3.4. *Appropriate examination instrumentation and examination positions*

Several studies, all from high-income countries, indicated that use of colposcopes for examination was not a source of pain or distress for children (Gulla et al., 2007; Marks et al., 2009; Mears et al., 2003; Palusci & Cyrus, 2001; Siegel, Hill, Henderson, & Daniels, 1999; Steward et al., 1995). There were no studies that addressed the feasibility of accessing recommended instruments in low-resource settings, although one study from Kenya documented a lack of availability of even basic necessary materials, including gloves and electricity for lights during the examination (Wangamati et al., 2016). Regarding examination positions, only one primary research study was found, which indicated that a knee-chest position was associated with children experiencing less stress and pain (Marks et al., 2009).

3.3.5. *Distress linked to collecting DNA evidence*

Two studies, one from Norway and one from Australia, found that forensic swabbing of the genital area increased children's distress levels (Gulla et al., 2007; Marks et al., 2009). No studies from low-resource settings examined the feasibility of collecting DNA evidence, however one study from Kenya noted a lack of appropriate equipment for collecting forensic samples (Wangamati et al., 2016).

3.4. *Findings for question 2c: how to document medical history and physical and forensic examination findings*

3.4.1. *Preference for having a structured format for recording findings*

Four studies from high-income countries and one from India found that having a structured record format and providing staff with training was useful in improving quality of documentation of history, physical exam, and forensic findings (Bar-on & Zanga, 1996; Centre for Enquiry into Health and Allied Themes (CEHAT) (2012); Greaney & Ryan, 1998; Socolar, 1996; Socolar et al., 1998).

3.4.2. *Usefulness and concerns regarding photographic evidence*

One study noted the value of photographic documentation for allowing experts to make sound judgements about child sexual abuse cases, and found the need for improved quality of photographs (Starling, Frasier, Jarvis, & McDonald, 2013). Using photography to preserve visual evidence in child sexual abuse investigations is valuable for legal purposes, peer review, and can also avoid the need for repeat examinations (Adams et al., 2016; Davies & Seymour, 2001). However, three studies found that children, adolescents, and caregivers expressed concern over having photographs taken, due to reasons including feeling they did not have a choice and not knowing how the photographs would be used (Davies & Seymour, 2001; Davies et al., 2001; Jones et al., 2010).

3.4.3. *How to record the survivor statements*

One study noted the importance of recording all of a child's statements accurately in order to prevent false allegations, particularly in situations where an adult may try to influence a child's statements (Pillai, 2007). Another study from the Philippines found that a credible disclosure statement by the child was the most important factor that determined case outcomes once a case reached court (Sugue-Castillo, 2009).

3.4.4. *How to document medical signs*

Two studies emphasized the importance of ensuring that the forensic report include all details necessary for non-medical professionals to understand medical findings and to understand how and why the physician interpreted the evidence and arrived at their conclusion regarding abuse status (Greaney & Ryan, 1998; Mian, Schryer, Spafford, Joosten, & Lingard, 2009).

4. Discussion

These findings synthesize an extensive body of literature on the values and preferences of child and adolescent survivors of sexual abuse, their caregivers, and health care providers. The findings, though largely from studies conducted in high-income, high-resource settings, provide important insights into how evidence-based recommendations can be delivered in a gender-sensitive, child or

adolescent-centred manner which also empowers caregivers. Themes identified are consistent with principles articulated in the United Nations Convention on Rights of the Child and with providing a trauma-informed approach to care (Ko et al., 2008; UN General Assembly, 1989).

The findings highlight that an initial response to child and adolescent sexual abuse can reduce distress and anxiety of survivors by providing information about what to expect, providing timely care, respecting survivors' wishes and preferences, creating a child or adolescent friendly environment, and providing a non-judgmental validating response. In relation to the question of how best to take medical history in ways that minimize trauma, the findings highlight the importance of establishing trust and rapport, using language that is tailored to the age and abilities of the child, asking open-ended questions, and making the interview process child friendly. In relation to the question of ways to minimize distress during examination, the findings suggest the importance of timely examination, making the examination process comfortable, not doing unnecessary examination and investigations, and communicating about the examination to reduce anxiety. And lastly, the findings from studies in relation to documentation practices highlight the importance of using structured formats, recording detailed statements in using the words of survivors, asking permission for documenting photographic evidence, and including detailed documentation of medical signs.

This review highlights a number of research gaps. Most glaring is the under-representation of low- and middle-income (LMIC) settings in the research literature. While expert clinicians and program implementers in LMICs possess a wealth of knowledge on good practices in LMICs, much of this knowledge is tacit or written in records and program reports that are not widely available in peer reviewed publications. Therefore, documenting such good practices from LMICs is needed to bolster global knowledge and drive cross-country learning and evidence-based clinical responses to child and adolescent sexual abuse. Moreover, further research is needed to determine the extent to which the good practice principles identified in this review apply in LMIC setting, and what modifications may be needed in order for response to CSA to be culturally and contextually appropriate. Research is also needed to unpack the different experiences of marginalization (i.e. based on sex, ethnicity, sexual orientation, disability, migration) that can lead children and adolescents to experience clinical care differently and perhaps have different expectations of response to sexual abuse.

While this paper focuses on clinical care approaches that minimize harms and traumas and are sensitive to child- and adolescent-specific needs, it is important to acknowledge the need for more evidence on health systems that can ideally enable provision of such clinical care including in terms of training approaches, human resources, coordination mechanisms and monitoring and evaluation systems. In order to enable provision of trauma-informed care and sensitive initial response, resources, training, and a supportive health systems environment is required. Supportive health systems enable providers to deliver care that is child and adolescent-centered, gender-sensitive, and that minimizes trauma and distress during examination, history taking, and documentation. Strong and supportive health systems also help to ensure that providers are well-trained, and adequately mentored and supervised to provide care in the necessary manner. Also required is good coordination and collaboration with other sector services, such as child and social welfare, legal services, and law enforcement.

Strengths of this review include the breadth of topics covered and the use of thematic analysis methods to synthesize information from a large amount of literature using many different study designs and methodologies. The thorough approach to searching and screening is also a strength. Although not intended to be a systematic review, methods used were rigorous and guided by the Prisma recommendations (Liberati et al., 2009). However, given the heterogeneity of the studies included, we were unable to assess the strength of the evidence using standard quality appraisal criteria. While quality appraisal was not necessary to achieve our goal of identifying recurring themes related to values and preferences, our inability to comment on the quality of the evidence in these areas is a study limitation.

The findings from this review were presented to a group of experts who constituted the guidelines development group of the WHO guidelines for responding to child and adolescent sexual abuse. The group deliberated on these findings as well as on their own practical experience and knowledge of the field. Based on the evidence and consensus of the guidelines development group, good practice suggestions and guiding principles were developed for four specific aspects of clinical care: provision of child and adolescent-centered and gender-sensitive initial response or first-line support; medical history taking to minimize additional trauma and distress; physical examination approaches to minimize additional trauma and distress; and documentation to minimize trauma and distress. These good practice suggestions were also additionally bolstered by guiding principles derived from international human rights instruments such as the Convention on the Rights of the Child (CRC) and CEDAW that provide human rights normative standards for upholding rights of children and women including in the context of violence.

The good practice suggestions provide a detailed set of suggestions on how to deliver effective clinical interventions in a rights-based, gender-sensitive, child or adolescent-centered and ethical way. This aspect of care is as critical to clinical care as evidence-based clinical interventions. The approach taken for these guidelines highlights the importance of triangulating evidence and of taking into consideration the views of beneficiaries as well as ethical and human rights standards in providing quality care to survivors of sexual abuse. Such care can go a long way in contributing to healing and recovery from the trauma of sexual abuse.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.chiabu.2019.104225>.

References

- Adams, J. A., Kellogg, N. D., Farst, K. J., Harper, N. S., Palusci, V. J., Frasier, L. D., ... Starling, S. P. (2016). Updated guidelines for the medical assessment and care of children who may have been sexually abused. *Journal of Pediatric and Adolescent Gynecology*, 29(2), 81–87. <https://doi.org/10.1016/j.jpjag.2015.01.007>.
- Ahern, E. C., Hershkowitz, I., Lamb, M. E., Blasbalg, U., & Winstanley, A. (2014). Support and reluctance in the pre-substantive phase of alleged child abuse victim investigative interviews: Revised versus standard NICHHD protocols. *Behavioral Sciences and the Law*, 32(6), 762–774. <https://doi.org/10.1002/bsl.2149>.
- Anderson, G. D., Anderson, J. N., & Gilgun, J. F. (2014). The influence of narrative practice techniques on child behaviors in forensic interviews. *Journal of Child Sexual Abuse*, 23(6), 615–634. <https://doi.org/10.1080/10538712.2014.932878>.
- Andrews, S. J., & Lamb, M. E. (2014). The effects of age and delay on responses to repeated questions in forensic interviews with children alleging sexual abuse. *Law and Human Behavior*, 38(2), 171–180. <https://doi.org/10.1037/lhb0000064>.
- Bar-on, M. E., & Zanga, J. R. (1996). Child abuse: A model for the use of structured clinical forms. *Pediatrics*, 98(3), 429–433.
- Blanco, L., Nydegger, L. A., Camarillo, G., Trinidad, D. R., Schramm, E., & Ames, S. L. (2015). Neurological changes in brain structure and functions among individuals with a history of childhood sexual abuse: A review. *Neuroscience & Biobehavioral Reviews*, 57, 63–69.
- Campbell, R., Greeson, M. R., & Fehler-Cabrall, G. (2013). With care and compassion: Adolescent sexual assault victims' experiences in sexual assault nurse examiner programs. *Journal of Forensic Nursing*, 9(2), 68–75. <https://doi.org/10.1097/JFN.0b013e31828badfa>.
- Castelli, P., & Goodman, G. S. (2014). Children's perceived emotional behavior at disclosure and prosecutors' evaluations. *Child Abuse and Neglect*, 38(9), 1521–1532. <https://doi.org/10.1016/j.chiabu.2014.02.010>.
- Centre for Enquiry into Health and Allied Themes (CEHAT) (2012). *Establishing a comprehensive health sector response to sexual assault*. Mumbai, India: Centre for Enquiry into Health and Allied Themes.
- Collings, S. J. (2011). Professional services for child rape survivors: A child-centred perspective on helpful and harmful experiences. *Journal of Child and Adolescent Mental Health*, 23(1), 5–15. <https://doi.org/10.2989/17280583.2011.594244>.
- Davies, E., & Seymour, F. (2001). Medical evaluations in cases of suspected child sexual abuse: Referrals and perceptions. *New Zealand Medical Journal*, 114(1136), 334–335.
- Davies, E., Seymour, F., & Read, J. (2001). Children's and primary caretakers' perceptions of the sexual abuse investigation process: A New Zealand example. *Journal of Child Sexual Abuse*, 9(2), 41–56. https://doi.org/10.1300/J070v09n02_03.
- Denis, C., Seyller, M., & Chariot, P. (2016). Expectations and perceptions of care among victims of sexual assault who first seek care from emergency, primary care and gynaecological doctors. *Emergency Medicine Journal*, 33(2), 134–138. <https://doi.org/10.1136/emmermed-2015-204655>.
- Du Mont, J., Macdonald, S., Kosa, D., & Smith, T. (2016). Nonoffending guardian assessment of hospital-based sexual abuse/assault services for children. *Journal of Forensic Nursing*, 12(1), 35–38. <https://doi.org/10.1097/JFN.0000000000000101>.
- Du Mont, J., Macdonald, S., White, M., Turner, L., White, D., Kaplan, S., ... Smith, T. (2014). Client satisfaction with nursing-led sexual assault and domestic violence services in Ontario. *Journal of Forensic Nursing*, 10(3), 122–134. <https://doi.org/10.1097/JFN.0000000000000035>.
- Duncan, M. K. W., & Sanger, M. (2004). Coping with the pediatric anogenital exam. *Journal of Child and Adolescent Psychiatric Nursing*, 17(3), 126–135. <https://doi.org/10.1111/j.1744-6171.2004.tb00006.x>.
- Fontes, L. A., & Tishelman, A. C. (2016). Language competence in forensic interviews for suspected child sexual abuse. *Child Abuse and Neglect*, 58, 51–62. <https://doi.org/10.1016/j.chiabu.2016.06.014>.
- Girardet, R., Giacobbe, L., Bolton, K., Lahoti, S., & McNeese, M. (2006). Unmet health care needs among children evaluated for sexual assault. *Archives of Pediatrics and Adolescent Medicine*, 160(1), 70–73. <https://doi.org/10.1001/archpedi.160.1.70>.
- Greaney, H., & Ryan, J. (1998). Straddle injuries—is current practice safe? *European journal of emergency medicine: official journal of the European Society for Emergency Medicine*, 5(4), 421–424.
- Gulla, K., Fenheim, G. E., Myhre, A. K., & Lydersen, S. (2007). Non-abused preschool children's perception of an anogenital examination. *Child Abuse and Neglect*, 31(8), 885–894. <https://doi.org/10.1016/j.chiabu.2007.03.017>.
- Hershkwitz, I. (2009). Socioemotional factors in child sexual abuse investigations. *Child Maltreatment*, 14(2), 172–181. <https://doi.org/10.1177/1077559508326224>.
- Hershkwitz, I., Orbach, Y., Lamb, M. E., Sternberg, K. J., & Horowitz, D. (2006). Dynamics of forensic interviews with suspected abuse victims who do not disclose abuse. *Child Abuse and Neglect*, 30(7), 753–769. <https://doi.org/10.1016/j.chiabu.2005.10.016>.
- Jones, L. M., Atoro, K. E., Walsh, W. A., Cross, T. P., Shadoin, A. L., & Magnuson, S. (2010). Nonoffending caregiver and youth experiences with child sexual abuse investigations. *Journal of Interpersonal Violence*, 25(2), 291–314. <https://doi.org/10.1177/0886260509334394>.
- Jones, L. M., Cross, T. P., Walsh, W. A., & Simone, M. (2007). Do Children's Advocacy Centers improve families' experiences of child sexual abuse investigations? *Child Abuse and Neglect*, 31(10), 1069–1085. <https://doi.org/10.1016/j.chiabu.2007.07.003>.
- Katz, C. (2015). 'Stand by me': The effect of emotional support on children's testimonies. *British Journal of Social Work*, 45(1), 349–362. <https://doi.org/10.1093/bjsw/bct137>.
- Katz, C., Barnett, Z., & Hershkwitz, I. (2014). The effect of drawing on children's experiences of investigations following alleged child abuse. *Child Abuse and Neglect*, 38(5), 858–867. <https://doi.org/10.1016/j.chiabu.2014.01.003>.
- Ko, S. J., Ford, J. D., Kassam-Adams, N., Berkowitz, S. J., Wilson, C., Wong, M., ... Layne, C. M. (2008). Creating trauma-informed systems: Child welfare, education, first responders, health care, juvenile justice. *Professional Psychology: Research and Practice*, 39(4), 396.
- Krause-Parello, C. A., & Friedmann, E. (2014). The effects of an animal-assisted intervention on salivary alpha-amylase, salivary immunoglobulin A, and heart rate during forensic interviews in child sexual abuse cases. *Anthrozoos*, 27(4), 581–590. <https://doi.org/10.2752/089279314X14072268688005>.
- Levy, J., Cyr, M., & Dion, J. (2015). Impact of interviewers' supportive comments and children's reluctance to cooperate during sexual abuse disclosure. *Child Abuse and Neglect*, 43, 112–122. <https://doi.org/10.1016/j.chiabu.2015.03.002>.
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., ... Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *PLoS Medicine*, 6(7), e1000100.
- Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review*, 29(7), 647–657.
- Marks, S., Lamb, R., & Tzioumi, D. (2009). Do no more harm: The psychological stress of the medical examination for alleged child sexual abuse. *Journal of Paediatrics and Child Health*, 45(3), 125–132. <https://doi.org/10.1111/j.1440-1754.2008.01443.x>.
- Mears, C. J., Heflin, A. H., Finkel, M. A., Deblinger, E., & Steer, R. A. (2003). Adolescents' responses to sexual abuse evaluation including the use of video colposcopy. *Journal of Adolescent Health*, 33(1), 18–24. [https://doi.org/10.1016/S1054-139X\(03\)00043-0](https://doi.org/10.1016/S1054-139X(03)00043-0).
- Mian, M., Schryer, C. F., Spafford, M. M., Joosten, J., & Lingard, L. (2009). Current practice in physical child abuse forensic reports: A preliminary exploration. *Child Abuse and Neglect*, 33(10), 679–683. <https://doi.org/10.1016/j.chiabu.2009.06.001>.
- Ofir, S., Tener, D., Lev-Wiesel, R., On, A., & Lang-Franco, N. (2016). The therapy beneath the fun: Medical clowning during invasive examinations on children. *Clinical Pediatrics*, 55(1), 56–65. <https://doi.org/10.1177/0009922815598143>.
- Palusci, V. J., Cox, E. O., Shatz, E. M., & Schultze, J. M. (2006). Urgent medical assessment after child sexual abuse. *Child Abuse and Neglect*, 30(4), 367–380. <https://doi.org/10.1016/j.chiabu.2005.11.002>.
- Palusci, V. J., & Cyrus, T. A. (2001). Reaction to videocolposcopy in the assessment of child sexual abuse. *Child Abuse and Neglect*, 25(11), 1535–1546. <https://doi.org/10.1016/j.chiabu.2005.11.002>.

- 10.1016/S0145-2134(01)00287-3.
- Pillai, M. (2007). An evaluation of 'confirmatory' medical opinion given to English courts in 14 cases of alleged child sexual abuse. *Journal of Forensic and Legal Medicine*, 14(8), 503–514. <https://doi.org/10.1016/j.jflm.2006.11.006>.
- Röhrs, S. (2011). *"I feel for rape survivors, but I don't have the time. I'm always running."* Barriers to accessing post-rape health care in South Africa. Cape Town, South Africa: University of Cape Town, The Gender, Health & Justice Research Unit.
- Rosenthal, S., Feiring, C., & Taska, L. (2003). Emotional support and adjustment over a year's time following sexual abuse discovery. *Child Abuse and Neglect*, 27(6), 641–661. [https://doi.org/10.1016/S0145-2134\(03\)00104-2](https://doi.org/10.1016/S0145-2134(03)00104-2).
- Runyon, M. K., Spandorfer, E. D., & Schroeder, C. M. (2014). Cognitions and distress in caregivers after their child's sexual abuse disclosure. *Journal of Child Sexual Abuse*, 23(2), 146–159. <https://doi.org/10.1080/10538712.2014.869291>.
- Sayfan, L., Mitchell, E. B., Goodman, G. S., Eisen, M. L., & Qin, J. (2008). Children's expressed emotions when disclosing maltreatment. *Child Abuse and Neglect*, 32(11), 1026–1036. <https://doi.org/10.1016/j.chiabu.2008.03.004>.
- Siegel, R. M., Hill, T. D., Henderson, V. A., & Daniels, K. (1999). Comparison of an intraoral camera with colposcopy in sexually abused children. *Clinical Pediatrics*, 38(6), 375.
- Socolar, R. R. S. (1996). Physician knowledge of child sexual abuse. *Child Abuse and Neglect*, 20(8), 783–790. [https://doi.org/10.1016/0145-2134\(96\)00065-8](https://doi.org/10.1016/0145-2134(96)00065-8).
- Socolar, R. R. S., Raines, B., Chen-Mok, M., Runyan, D. K., Green, C., & Paterno, S. (1998). Intervention to improve physician documentation and knowledge of child sexual abuse: A randomized, controlled trial. *Pediatrics*, 101(5), 817–824. <https://doi.org/10.1542/peds.101.5.817>.
- Sowmya, B. T. S., Seshadri, S. P., Srinath, S., Girimaji, S., & Sagar, J. V. (2016). Clinical characteristics of children presenting with history of sexual abuse to a tertiary care centre in India. *Asian Journal of Psychiatry*, 19, 44–49. <https://doi.org/10.1016/j.ajp.2015.12.007>.
- Starling, S. P., Frasier, L. D., Jarvis, K., & McDonald, A. (2013). Inter-rater reliability in child sexual abuse diagnosis among expert reviewers. *Child Abuse and Neglect*, 37(7), 456–464. <https://doi.org/10.1016/j.chiabu.2013.01.002>.
- Steward, M. S., Schmitz, M., Steward, D. S., Joye, N. R., & Reinhart, M. (1995). Children's anticipation of and response to colposcopic examination. *Child Abuse & Neglect*, 19(8), 997–1005.
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R., & IJzendoorn, M. H. (2015). The prevalence of child maltreatment across the globe: Review of a series of meta-analyses. *Child Abuse Review*, 24(1), 37–50.
- Sugue-Castillo, M. (2009). Legal outcomes of sexually abused Children evaluated at the Philippine General Hospital Child Protection Unit. *Child Abuse and Neglect*, 33(3), 193–202. <https://doi.org/10.1016/j.chiabu.2008.09.004>.
- Sumner, S. A., Mercy, A., Saul, J., Motsa-Nzuza, N., Kwesigabo, G., Buluma, R., ... Moloney-Kitts, M. (2015). Prevalence of sexual violence against children and use of social services-seven countries, 2007-2013. *MMWR. Morbidity and Mortality Weekly Report*, 64(21), 565–569.
- Teoh, Y. S., & Lamb, M. (2013). Interviewer demeanor in forensic interviews of children. *Psychology, Crime and Law*, 19(2), 145–159. <https://doi.org/10.1080/1068316X.2011.614610>.
- Thomson Reuters. (2016). Endnote X7.8.
- UN General Assembly (1989). Convention on rights of the child. In U. Nations (Ed.). *Number 1577*. Geneva, Switzerland: United Nations.
- Veenema, T. G., Thornton, C. P., & Corley, A. (2015). The public health crisis of child sexual abuse in low and middle income countries: An integrative review of the literature. *International Journal of Nursing Studies*, 52(4), 864–881.
- Waibel-Duncan, M. K. (2001). Medical fears following alleged child abuse. *Journal of Child and Adolescent Psychiatric Nursing*, 14(4), 179–185. <https://doi.org/10.1111/j.1744-6171.2001.tb00311.x>.
- Waibel-Duncan, M. K. (2004). Identifying competence in the context of the pediatric anogenital exam. *Journal of Child and Adolescent Psychiatric Nursing*, 17(1), 21–28. <https://doi.org/10.1111/j.1744-6171.2004.00021.x> + 44.
- Waibel-Duncan, M. K., & Sanger, M. (1999). Understanding and reacting to the anogenital exam: Implications for patient preparation. *Child Abuse & Neglect*, 23(3), 281–286.
- Wangamati, C. K., Combs Thorsen, V., Gele, A. A., & Sundby, J. (2016). Post-rape care services to minors in Kenya: Are the services healing or hurting survivors? *Int J Womens Health*, 8, 249–259. <https://doi.org/10.2147/ijwh.s108316>.
- Watkeys, J. M., Price, L. D., Upton, P. M., & Maddocks, A. (2008). The timing of medical examination following an allegation of sexual abuse: Is this an emergency? *Archives of Disease in Childhood*, 93(10), 851–856. <https://doi.org/10.1136/adc.2007.123604>.
- World Health Organization (2017). *Responding to children and adolescents who have been sexually abused: WHO clinical guidelines*. Geneva, Switzerland: World Health Organization.