SYSTEMATIC REVIEW
IN PUBLIC HEALTH

Prevalence and management of child sexual abuse cases presented at Nigerian hospitals: A systematic review

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Abstract

Introduction: Aim of this study was to review all suspected sexual abuse (SA) cases presenting at Nigerian hospitals, in order to examine both the prevalence of child sexual abuses (CSA) cases and the availability of hospital protocols and medical and forensic services for their evaluation, management and follow-up.
Methods: A systematic review of literature including only studies published in English from 2006 to 2016 and cited in the Medline, Scopus and Web of Science databases was carried out.
Results: A total of 16 hospital-based studies were included. Out of the total of 166,985 suspected SA cases presented at hospitals, only 1,553 (0.93%) of them were confirmed. Most of them (*n* = 1,164, 74.95%) occurred in children (< 18 years) and majority of the CSA victims were female (*n* = 1,155, 99.23%). HIV screening (*n* = 13, 81.25%) and vaginal swab (*n* = 8, 50%) were the most common investigations carried out by clinicians, whereas the most common medical treatments offered by the health facilities were emergency contraceptives (*n* = 8, 50%) and HIV post exposure prophylaxis (*n* = 7, 43.75%), with only a quarter of the cases (*n* = 4, 25%) offering any form of psychological counseling to victims and/or their parents. Written protocol for CSA evaluation and management was absent in nearly all of the health facilities.
Conclusions: In Nigeria, healthcare and forensic management of CSA are poor, probably due to late presentation of victims at the hospital and to negligence on the part of health and security personnel. CSA is also possibly under-reported, with serious implications for the child and society. Prevention, proper medical treatment, management and follow-up for victims and their families, as well as making the perpetrators answerable for their crimes are highly recommended measures to tackle this issue.

KEY WORDS: Child abuse, sexual; health services; Nigeria; psychological trauma; public health; sexual assault; violence.

Riassunto

Introduzione: L'obiettivo di questo studio è stato quello di fare una revisione di tutti i casi di sospetto abuso sessuale che si sono presentati negli ospedali nigeriani, per esaminare sia la prevalenza dei casi di abuso sessuale nei bambini che la disponibilità di protocolli ospedalieri e servizi medici e forensi per la loro valutazione, gestione e follow-up.
Metodi: È stata effettuata una revisione sistematica della letteratura che ha incluso soltanto studi pubblicati in inglese dal 2006 al 2016 e citati nelle banche dati Medline, Scopus e Web of Science.
Risultati: Un totale di 16 studi su base ospedaliera sono stati inclusi. Dei 166.985 casi totali di sospetta violenza sessuale che si sono presentati in ospedale, solo 1.553 (0.93%) sono stati confermati. La maggior parte di essi (*n* = 1.164, 74,95%) si è verificata nei bambini (< 18 anni) e la maggior parte dei casi di violenza sessuale nei bambini ha interessato soggetti di sesso femminile (*n* = 1.155, 99,23%). Lo screening per HIV (*n* = 13, 81,25%) ed il tampone vaginale (*n* = 8, 50%) sono stati gli esami diagnostici più comunemente richiesti dai medici, mentre le terapie mediche più comunemente somministrate dalle strutture sanitarie sono state la contraccezione d'emergenza (*n* = 8, 50%) e la profilassi post-esposizione per l'HIV (*n* = 7, 43,75%), con una qualche forma di consulenza psicologica offerta alle vittime e/o ai loro genitori soltanto in un quarto dei casi (*n* = 4, 25%). Un protocollo scritto per la valutazione e la gestione dei casi è risultato assente in quasi tutte le strutture sanitarie.
Conclusioni: In Nigeria, la gestione sanitaria e medico legale dei casi di abuso sessuale nei bambini è scarsa, probabilmente per il ritardo nella presentazione delle vittime in ospedale e per la negligenza da parte del personale sanitario e responsabile della sicurezza. I casi di abuso sessuale nei bambini sono anche forse poco denunciati, con una serie di implicazioni per il bambino e la società. La prevenzione, l'appropriato trattamento medico, la gestione ed il follow-up delle vittime e dei loro familiari, cosi come assicurare alla giustizia i colpevoli di tali crimini sono misure altamente raccomandate per contrastare questo problema.

TAKE-HOME MESSAGE

In Nigeria prevalence of child sexual abuse among sexually-abused cases presented at hospital is high and, possibly, underestimated; however, it is urgent that policy-makers provide funding and health centers implement hospital protocols for giving appropriate medical and forensic management to victims and their families.

Competing interests - none declared.

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INTRODUCTION

The Child Rights Act adopted by Nigeria in 2003 [1] requires that children's well-being must be respected and considered paramount. However, the increased incidence of child sexual abuse cases has dominated the headlines in the media, causing a great deal of concern. Child sexual abuse (CSA) describes all acts directed at engaging a child directly or indirectly in non-age appropriate sexual behaviours either through intimidation or inducement. The World Health Organization (WHO) has defined child sexual abuse as 'the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of the society' [2]. Minahan considers CSA as occurring at an age when the child does not fully understand the nature of the act taking place and, therefore, lacks the cognitive, emotional and physical power to say no to the sexual behavior [3]. Features that characterize CSA include but are not limited to: asking or pressuring a child to engage in sexual activities (whether successful or not); indecent exposure of the genitals to a child; and child exposure to or involvement in pornography, physical (fondling, caressing, penetration, etc) or non-physical sexual contact with the child's genitals or other body parts.

The occurrence of CSA is a global and widespread phenomenon. A literature review showed that CSA is the third most common type of child maltreatment [4]. The 2009 WHO's report showed an annual global estimate of CSA at about 73 million (7%) for boys and 150 million (14%) for girls, affecting 1 in 4 girls and 1 in 6 boys before the age of 18 [5]. In 2008, the Centers for Disease Control and Prevention (CDC) reported that 772,000 children were abused or neglected all over the world, and approximately 9% of them were sexually abused [6]. The United States Department of Health and Human Services (USDHHS) reported that, in 2010, over 60,000 American children were sexually abused [7].

Africa is not an exception and, according to a WHO report, sexual abuse of females before the age of 15 accounts for between 7% and 21% of all CSA cases, whereas figures for adolescent males ranged between 3.4%-29.9% in some African countries [8]. Also, more than 41% of rapes reported in South Africa involved children under age 18 and it was suggested that 25% of girls are likely to be raped before the age of 16 [9]. In one Ugandan study, 72% of victims who presented to a hospital were aged 12 or below [10]. Similarly, a Kenyan study found that 50% of patients presenting to some sexual assault centres were under 14 years old [11]. Gwirayi reported an overall CSA prevalence rate of 56.3% among children attending urban secondary schools in Zimbabwe [12]. Likewise, an analysis of Demographic and Health Survey's data on 6,351 adolescents aged 18 years or below from six countries in sub-Saharan Africa, between 2006 and 2008, showed that prevalence of CSA ranged from 1.04% in Liberia to 5.84% in Zambia, with Uganda, Nigeria, Ghana, and Zimbabwe reporting a prevalence of 1.38%, 2.40%, 4.61%, and 4.96%, respectively [13].

Community-based surveys among in-school and out-of-school adolescents in Nigeria indicated high levels of CSA. In a study from Maiduguri, North-East Nigeria, a sexual assault rate of 77.7% was reported among female children workers with sexual assault being more likely in girls who were younger than 12 years [14]. Also, Kunuji and Essiet reported that about 14% and 35% of out-of-school adolescents in an urban slum in Lagos had been victims of rape and statutory rape, respectively [15]. Olley [16] and Manyike et al. [17], reported a prevalence of 55% and 40% among in-school adolescents in South-west and South-east Nigeria, respectively. Other studies were based on newspaper accounts indicating a high incidence of CSA in different parts of Nigeria [18, 19]. In Benin City, victims of sexual molestation comprised children aged 6-12 years and adolescents aged 13-19 years [20]. Another study showed

that 58% of rape cases reported in hospitals in Benin City concerned child victims [21]. Although female children were reported in literature as predominantly being sexually abused, incidence of sexual abuse on male children is on the increase as well [22].

CSA can take several forms. Giving away of young girls into marriage even before the onset of their menstrual cycle is still being practiced especially in the Northern part of Nigeria for religious and economic reasons. Child sexual abuse can manifest itself very frequently in the form of child prostitution. In this way, Uzuegbu observed the existence of a growing market for the trafficking of women and young children from Nigeria to Europe, America and some African countries for the illicit purposes of prostitution and pornography [23]. Female genital mutilation (FGM) referring to all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons, is another form of CSA that is rampant in Nigeria. The news media are getting flooded with cases of intra-familial child sexual abuses especially in the father-daughter relationships. Indeed, the majority of children and teen victims know the perpetrators, who are mostly male and often relatives, neighbours, or other trusted members of their social network [24, 25].

Low levels of disclosure in CSA victims have been also reported in literature [26–28]. Reasons for poor disclosure range from shame, anxiety, or fear [29] to likelihood of stigma, ridicule and/or reduction of their chances of getting married if the abuse was made public, especially amongst the female victims. The first point of contact for victims of sexual assault who decide to seek redress for the sexual infringement may be a police station or a medical facility, such as an emergency centre or an outpatient health centre. The type of reception and quality of service received by those who were bold enough to report their ordeal to law enforcement agents or visit healthcare facilities for treatment, will most likely determine if victims will complete follow-up visits as recommended or if others with whom they share their experience will be willing to use or recommend the same available services. This research, therefore, aimed to systematically review retrospective studies focusing on child sexual abuse cases presented at Nigerian hospitals, with the specific objectives of determining the prevalence of this phenomenon, the availability of hospital protocols for the evaluation, management and follow-up of CSA cases as well as the availability of medical and forensic services to CSA victims. The findings could give more valuable information to policy makers, in order to improve short and long-term measures for both clinical and forensic assistance to CSA victims and their families, in Nigeria as well as other sub-Saharan countries.

METHODS

In order to carry out this review, we followed the statements of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [30].

Study selection

Articles in scientific journals, excluding doctoral theses or book chapters, published only in English, and focused on studies reporting hospital-based cases of sexual abuse including CSA, presented for treatment at Nigerian hospitals, were retrieved using the Medline, Scopus, and Web of Science databases. Abstracts of all suitable articles were examined. The same selection criteria were applied for checking references of the selected publications to identify further reports not found by database searching. The search terms including '*sexual abuse' OR 'sexual assault', OR 'child rape' AND 'child',* and *'management' AND 'child sexual abuse',* and *'hospital-based' AND 'child sexual abuse'* with the term '*Nigeria*', were followed. Only studies published from 2006 to 2016 were considered.

Inclusion and exclusion criteria

In order to be included in this review, studies had to meet the following criteria: (A) focus on a sample of children and adolescents, including studies in which the mean age of par-

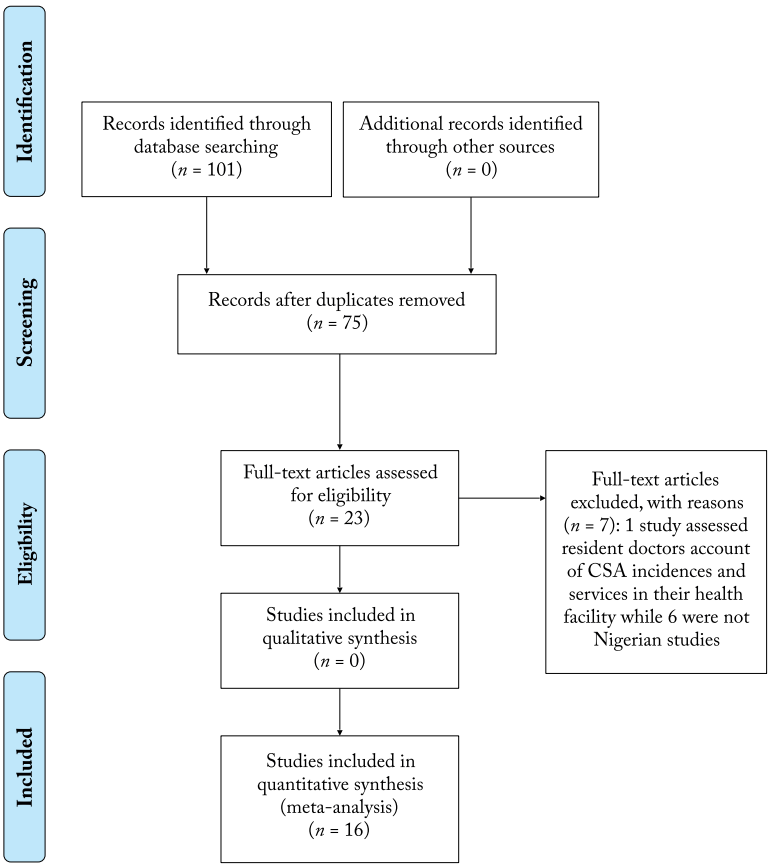

Figure 1. Flowchart of the selection of studies for inclusion in the review.

ticipants was less than 18 years, or the upper limit of the age range of the sample was less than 41 years, if the study did not report the mean age of participants; (B) provide prevalence data on hospital-based childhood sexual abuse cases in Nigeria; (C) with regard to the abuses, provide data on types of hospital protocols and treatment provided for the evaluation, management and follow-up of CSA cases; d) provide details about investigations, and/or legal actions taken against perpetrators. Studies that did not meet the inclusion criteria were excluded from this review.

Study coding

A series of variables relating to the studies reviewed were recorded: (a) author(s) and year of publication; (b) study design; c) Nigeria's geopolitical zone. In addition, content was analyzed in order to identify: 1) Prevalence of SA cases among adults and children reported by retrieved hospital-based studies; 2) Investigations carried out and treatment provided to the victims; 3) Involvement of law enforcement agencies in prosecuting offenders. Each study was analyzed by the absolute (*n*) and relative (%) frequency for variables as follows: 1) Number of all suspected SA cases presented at hospital; 3) Prevalence of SA cases confirmed in adults and children (CSA); 4) Prevalence of CSA grouped by gender; 4) Mean age of confirmed cases of CSA; 5) Presence or absence of: i) Hospital protocol for evaluation, management and follow up of CSA cases; ii) Psycho-social support for CSA victims and/or their families; iii) Screening for Sexually Transmitted Diseases (STDs) and HIV; iv) Post-exposure prophylaxis for STDs and HIV; v) Pregnancy test and emergency contraception.

RESULTS

The process of selecting the studies in this review is shown in Figure 1. After the initial search (101 potential articles), 16 observational, retrospective studies were included;

Table 1. Authors, period covered in review, geopolitical zones, states, hospitals and departments represented in reviewed studies (*n* = 16 studies).

Authors and period covered	Type of study design	Geopolitical zones, state, city, hospitals and department
Abdulkadir et al., 2011 (1st Jan 2007 - 30th June 2008)[31]	Cross-sectional	*North Central Nigeria* GOP General Hospital, Suleja, Niger State.
Daru et al., 2011 (Jan 2001 - Dec 2003)[32]	Cross-sectional	Gynaecological Emergency Unit JUTH, Jos, Palteau State.
Ashimi et al., 2015 (Sept 2011 - Aug 2013)[33]	Longitudinal	*North West Nigeria* Gynecological Emergency Unit of a Tertiary Health Facility in a Birnin-Kudu, Jigawa State.
Bugaje, et al., 2012 (Aug 2008 - Oct 2009)[34]	Cross-sectional	ICH, Zaria, Kaduna State.
Hassan et al., 2016 (Jan 2010 - Dec 2014)[35]	Cross-sectional	UDTH, Sokoto, Sokoto State.
Chinawa et al., 2013 (Jan - Dec 2010)[36]	Cross-sectional	*South East Nigeria* CHOP EBSUTH Abakiliki, Ebonyi State.
Ekabua et al., 2006 (Jan 1998 to Dec 2001)[37]	Cross-sectional	Department of Obstetrics and Gynaecology, University of Calabar Teaching Hospital, Calabar, Cross River State.
Nwolisa et al., 2016 (Jan 2009 to Dec 2013)[38]	Cross-sectional	Paediatric Infectious diseases unit, Federal Medical Centre, Owerri, Imo State, Nigeria.
Olatunya et al., 2013 (Jan 2010 - March 2013)[39]	Cross-sectional	*South West Nigeria* CHOP, EKSUTH, Ado-Ekiti, Ekiti State.
Akinlusi et al., 2014 (Jan 2008 - Dec 2012)[40]	Cross-sectional	Gynaecology Clinic LASUTH, Ikeja. Lagos State.
Badejoko et al., 2014 (1st Jan 2007 - 31st Dec 2011)[41]	Cross-sectional	Children/Adult Emergency units OAUTHC, Ile-Ife, Osun State.
Ige & Fawole, 2012 (June 2008 - May 2009)[42]	Cross-sectional	General Hospital in Ibadan, Oyo State.
Adeleke et al., 2012 (1st Jan 2003 - 31st Dec 2009) [43]	Cross-sectional	State hospital, Asubiaro, Osogbo, Osun State.
Ezechi et al., 2016 (Jan 2006 - Dec 2015) [44]	Cross-sectional	HIV treatment centre, Nigerian Institute of Medical Research, Lagos.
Duru, et al., 2014 (1st Dec 2009 - 30th Nov 2013) [45]	Cross-sectional	*South South Nigeria* CHOP, NDUTH, Okolobiri, Bayelsa State.
Akhiwu et al., 2013 (1st Jan 2000 - 31st Dec 2000) [46]	Cross-sectional	Police Medical Centre, Benin City, Edo State.

Notes: GOP – General Outpatient Dept.; CHOP – children out patient / pediatric outpatient; EBSUTH – Ebonyi State University Teaching Hospital; UDTH - Usman Danfodio Teaching Hospital;(OAUTHC - Obafemi Awolowo University Teaching Hospitals complex; LASUTH - Lagos State University Teaching; NDUTH – Niger Delta University Teaching Hospital Okolobiri; EKSUTH - Ekiti State University Teaching Hospital; JUTH - Jos University Teaching Hospital, ICH – Institute of Child Health.

Table 2. Prevalence of child sexual abuse cases reported in Nigerian health institutions (*n* = 16 studies).

Authors' references	All cases presented at hospitals		Total of CSA cases (< 18 years)			Prevalence of confirmed CSA cases (*n* =, %)
	All cases (*n*)	All confirmed SA cases (*n* =, %)	Boys (*n*)	Girls (*n*)	Mean age in years	
Daru et al., 2011[32]	2,135	105 (4.9%)	0	67	12	67 (63.8%)
Abdulkadir et al., 2011[31]	No data Available	81 (ID)	0	77	9	77 (95.06%)
Ige and Fawole, 2012[42]	No data Available	72 (ID)	0	72	-	72 (100%)
Bugaje et al., 2012[34]	33,313	20 (0.06%)	3	17	-	20 (0.06%)
Akhiwu et al., 2013[46]	1,028	85 (4.67%)	0	48	14.54	48 (56.47%)
Chinawa et al., 2013[36]	3,750	33 (0.9%)	2	31	-	33 (0.9%)
Olatunya et al., 2013[39]	6,535	28 (0.43%)	0	28	-	28 (0.43%)
Duru et al., 2014[45]	12,229	33 (0.27%)	1	32	7.9	33 (0.27%)
Akinlusi et al., 2014[40]	39,770	287 (0.6%)	0	240	12.9	240 (83.62%)
Badejoko et al., 2014[41]	24,575	76 (0.13%)	0	31	-	31 (40.79%)
Ashimi et al., 2015[33]	973	24 (2.26%)	0	22	8.8	22 (91.67%)
Hassan et al., 2016[35]	5,317	34 (0.39%)	0	21	12.6	21 (61.76%)
Adeleke et al., 2012 [43]	14,970	309 (2.06%)	0	228	15.8	228 (73.79%)
Ekabua et al., 2006[37]	1,038	22 (2.11%)	0	15*	13.6	15 (68.18%)
Ezechi et al., 2016[44]	21,199	196 (0.9%)	2	79**	-	81 (41.33%)
Nwolisa et al., 2016[38]	153	148 (96.7%)	1	147	13.33	148 (96.7%)
Total	**166,985**	**1,553 (0.93%)**	**9**	**1,155**	**-**	**1,164 (74.95%) *****

Notes: *SA – Sexual Abuse; CSA – Child Sexual Abuse;* * 15 victims ≤ 14 years; ** 81 victims < 20 yrs, since age of the 12 male victims ranged from 19 to 41 years with a mean of 24.9 ± 4.9 years[44] it was assumed that 2 males were 19 years; *** All SA cases/Total CSA cases presented in hospitals; ID = Insufficient Data.

the articles that did not meet the previously established inclusion and exclusion criteria were excluded.

Majority of the selected articles were cross-sectional and retrospective studies, except one that was longitudinal (prospective) study. The papers reviewed were from 5 out of the 6 geopolitical zones in Nigeria. No study was found during the period of the review from the North East geopolitical zone. More specifically, 6 studies were from hospitals in South-West Nigeria (Ile-Ife, Ibadan, Ado-Ekiti, Oshogbo and Lagos-2 studies), 3 from North-West (Jigawa, Kaduna, Sokoto), 2 each from North Central (Niger, Plateau) and South-South (Bayelsa, Edo), and 3 from South-East (Ebonyi, Calabar and Owerri) Nigeria (see Table 1).

With regard to the 36 states of Nigeria plus the Federal Capital Territory (FCT), 16 studies were reviewed from 14 states covering 37.8% of the Nigerian territory, including the FCT. The papers reviewed were published between 2006 and 2016, but years covered by studies reviewed ranged from 1998 to 2015.

Prevalence of child sexual abuse cases presented at hospitals

The prevalence of all sexual abuse cases among patients presented at hospitals ranged from 0.06% in Zaria [34] to 96.7% in Owerri [38]. A summary of all sexual abuse cases and percentage of CSA with respect of all sexual abuse cases drawn from the 16 hospital-based studies included in this review are shown in Table 2.

As shown in Table 2, out of the estimated total of 166,985 suspected cases of sexual abuse that presented at hospitals, only 1,553 (0.93%) of them were confirmed as being sexual abuse cases. Moreover, of the 1,553 sexual abuse cases reported, 1,164 (74.95%) were CSA as they occurred in children aged 18 years or below. Majority (*n* = 1,155, 99.2%) of the

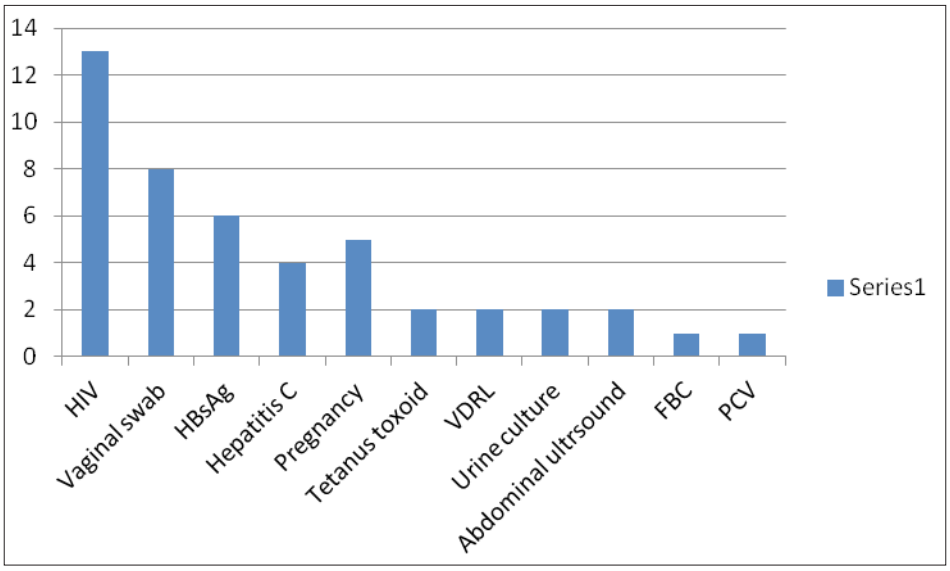

Figure 2. Types of medical investigations carried out in reviewed studies (*n* = 16).

sexually abused children were female. This displays a high vulnerability of the Nigerian girl child to sexual abuse. It could, however, mean that most cases involving the female children presented to the hospital for treatment, because the physical damage which may have been caused on genitals is often more obvious and severe than compared to what may obtain in the male child (except in cases of anal penetration). Similar findings about the prevalence of child sexual abuse cases presented at Nigerian hospitals have been reported in studies from other Sub-Saharan countries. For instance, an Ethiopian hospital-based study on 275 sexually and physically abused children, confirmed that majority of cases were victims of sexual abuse (97.3%) [47]. Moreover, in a hospital-based prospective study from Uganda, about 92% of sexual assault cases were against children aged 1-17 years [48]. Foumane et al., (2014) [49] also reported a high prevalence (65%) of CSA in Yaoundé, Cameroon. Another study from Dammam, Saudi Arabia, showed that 85% of the 87 cases of assaults on children aged less than 18 at the Maternity and Children Hospital (from 2008 to 2010), and at Forensic and Legal Center (from 2006 to 2010) were sexually motivated [50]. A much lower incidence of 15 children aged 6-12 years was reported in a study conducted by the Forensic Medical Authority (FMA) of the Fayoum Governorate in Egypt over a 5-year period [51]. However, unlike the findings highlighted in this Nigerian hospital-based review, 80% of the victims of child sexual assault in Egypt were males and only 20% were females [51]. Other studies from Ethiopia [47, 52, 53] and Malawi [54] have reported findings similar to those discovered by this systematic review, as a higher proportion of female than male children were victims of child sexual abuse.

Management of sexual abuse cases in Nigerian hospitals

The most commonly requested investigations across the 16 studies were as follows: a) HIV screening (*n* = 13, 81.25%); b) Vaginal swab (*n* = 8, 50%); c) HBsAg (*n* = 6, 37.5%); d) Hepatitis C (*n* = 4, 25%); e) Pregnancy test (*n* = 5, 31.3%); f) Tetanus toxoid, urine culture, abdominal ultrasound and VDRL (*n* = 2, 12.5%); g) Full blood count and PCV (*n* = 1, 6.3%).-

Data from the current review showed that important investigations for sexual abuse cases presented at Nigerian hospitals are not routinely requested for across all Nigerian hospitals that were analyzed in this review. Moreover, even among those studies where investigations were requested, only few victims actually carried out the requested in-

Table 3. Available services and procedures in the management of child sexual abuse (*n* = 16 studies).

Authors' references	CSA Hospital protocol	Psychosocial support services	Screening		PEP		Pregnancy		Follow-up
			STDs	HIV	STDs	HIV	Test	EC	
Daru et al., 2011[32]	Not available	Not offered	Yes 61%	Yes 64%	NDS	NDS	NDS	Yes 23%	NDS
Abdulkadir et al., 2011[31]	Not available	NDS	NDS	NDS	NDS	NDS	NDS	NDS	NDS
Ige and Fawole, 2012[42]	NDS	Offered to 15.3% victims	Yes 76%	Yes 60%	Yes 47%	Yes 6%	ND	Yes 12%	No 0%
Bugaje, et al., 2012[34]	NDS	Not offered	Yes 65%	Yes 95%	Yes 50%	NDS	Yes 15%	NDS	Yes 45%
Akhiwu et al., 2013[46]	NDS	NDS	NDS	NDS	NDS	NDS	NDS	NDS	NDS
Chinawa et al., 2013[36]	NDS	Not offered	Yes 30%	Yes 42%	NDS	NDS	No	No	Yes 3%
Olatunya et al., 2013[39]	Not available	NDS	NDS	Yes 100%	Yes 89%	Yes 61%	No	Yes 44%	Yes 3.6%
Duru, et al., 2014[45]	NDS	Not offered	Yes 27%	Yes 62%	NDS	Yes 33%	NDS	Yes 12%	Yes 18.2%
Akinlusi et al., 2014[40]	Not available	Not offered	Yes 64%	Yes 74%	NDS	Yes 29%	Yes 31%	Yes 22%	Yes 72%
Badejoko et al., 2014[41]	Not available	NDS	Yes 42%	Yes 85%	Yes 92%	Yes 52%	Yes 13%	Yes 37%	Yes 13%
Ashimi et al., 2015[33]	NDS	Offered Pre STD/HIV screening counselling	Yes 13%	Yes 46%	NDS	NDS	NDS	NDS	0% after 2nd visit
Hassan et al., 2016[35]	NDS	NDS	NDS	NDS	NDS	NDS	NDS	NDS	NDS
Adeleke et al., 2012 [43]	Not available	NDS	Yes 2%	Yes 2%	No 0%	No 0%	Yes 0.6%	NDS	Yes 3.9%
Ekabua et al., 2006[37]	NDS	Not offered	Yes 14%	Yes 27%	NDS	NDS	Yes	Yes 27%	No
*Ezechi et al., 2016[44]	Available	Offered	Yes 34%	Yes 100%	NDS	Yes 90%	NDS	Yes 95%	Yes 75%
Nwolisa et al., 2016[38]	NDS	Offered	NDS	Yes 100%	NDS	Yes 90%	NDS	NDS	Yes 1.4%

Notes: EC = Emergency contraception; NDS = Not documented in the study; PEP = Post Exposure Prophylaxis; *All cases of occupational and non-occupational exposure to infectious agents are provided services using a standardized management protocol and 75% completed 3months follow-up visits.[44]

vestigations. For instance, in one of the reviewed studies, 29 HIV screening test were requested, but only 18 of them were performed and of 20 vaginal swabs requested only 5 were actually carried out [45]. Reasons for this non-compliance might be due to lack of financial resources available to the victims and their parents.

As reported by the 16 hospital-based studies reviewed, the most common treatments offered to children who were victims of sexual abuse included: emergency contraceptives (*n* = 8, 50%), HIV post-exposure prophylaxis (PEP) (*n* = 7, 43.75%), antibiotics (*n* = 4, 25%), and some types of psychosocial support (*n* = 4, 25%). It is noteworthy that 56% and 75% of the studies reviewed did not document, nor did routinely offer HIV and sexually transmitted diseases (STDs) prophylaxis, respectively. A study in Uganda also reported that HIV prophylaxis was not given to sexual abuse victims due to the non-availability of funds [48]. The low proportion of children who received PEP for HIV and other STDs

was also likely due to delayed arrival of the victims at hospital. In most of the studies reviewed, a good number of the CSA victims went to hospital 72 hours after the occurrence of the sexual abuse [36, 42, 45]. However, in two of the studies reviewed, a high proportion of CSA cases presented at health centers within 72 hours and 24 hours, respectively [35, 41]. Prompt presentation, within 72 hours, is essential for proper management of sexual abuse or assault cases. Delayed presentation might be, however, attributed to low awareness of ideal timing for STDs and HIV prophylaxis, for emergency contraceptives, as well as due to financial constraints and geographic barriers [55]. Indeed, probably prophylaxis is not often available at health centers, which are dedicated to the provision of HIV and STD prophylaxis to high-risk patients due to lack of funds. According to Patel et al., some elements of a comprehensive medical care management of sexual abuse cases include: 1) Immediate attention to acute physical trauma; 2) History and physical examination; 3) Immediate and follow-up mental health counseling; 4) Tests and prophylaxis for sexually transmitted infections and HIV; 5) Counselling and provision of emergency contraception [56]. The management of sexual assault is based on the principles of preventing pregnancy, treating CSA complications and providing prophylactic antibiotics, as well as psychological rehabilitation [32]. Unfortunately, these principles were not strictly followed by the hospital-based studies reported by this review. Section 32, subsections 1 and 2 of the Nigerian Child Right Act apart from providing a penalty of 14 years imprisonment for persons who sexually abuse or sexually exploits children in any manner, requires mandatory counseling and rehabilitation of abused children [1]. However, in most of the studies reviewed, the CSA victims were not referred for psychological support [34, 40, 45]. Only few studies reported that some form of counseling was provided to the CSA victims, by receiving a specific treatment at health facility [33, 42, 38, 44]. Among the 138 resident physicians in gynecology and obstetrics attending an update course in Nigeria, only 39 (28.7%) of them indicated access to clinical psychologists in their health facilities [57]. It is not clear how much of the available clinical psychologists are involved in the care of rape and child sexual abuse victims. Sexual violence has short- and/or long- physical and psychological negative effects on its victims. Psychologically, victims of CSA are more likely to experience depression, substance abuse, increased risk for adoption of risky sexual behaviours, post-traumatic stress disorder (PTSD), and suicide [16, 58]. Physically, multiple bruises in uncommon sites, vaginal and anal lacerations and perforations as well as exposure of victims to unwanted pregnancy and sexually transmitted infections (STIs) including HIV/AIDS have been reported [36, 45]. As shown in literature, over their lifetime, sexual assault survivors are at increased risk for post-traumatic stress disorder (30%), major depression (30%), suicidal ideation (33%), and suicidal attempt (13%) [58]. Psychological interventions should be incorporated into healthcare services provided to CSA victims. Thought must also be given to providing support and/or counselling to those caring for the child. This may be required even if the CSA victim is not assessed as needing therapy. Early interventions that help individuals through their initial reactions to sexual assault could reduce or prevent more severe psychological distress. Therefore, immediate trauma management and long-term counseling and psychotherapy are essential components of CSA survivor care in moderating the negative consequences of CSA on victims.

Presence of hospital protocols for CSA cases

With regard to the hospital protocols, this review found that written protocols for CSA evaluation, management and follow-up were not available in most of the medical facilities [31, 34, 40]. This finding is in line with that reported by a study on 138 resident physicians in gynecology and obstetrics across 25 different training institutions in Nigeria, from all 6 geopolitical zones, where 131 of

them (94.9%) claimed a lack of rape management protocol in their training health facilities [57]. The less than desirable standard of medical management of the CSA victims could be linked to this lack of protocol that could serve as a ready reference point on what has to be done in case of CSA. Furthermore, most of the hospitals were poorly equipped to adequately manage CSA cases, probably due to inadequate funding by government.

Overall, most of the studies reviewed have reported poor follow-up practices on CSA cases. Parents need to be educated from the initial visit on the importance of follow-up after the initial contact with the health facility to ensure proper investigations and treatment that could prevent unwanted health outcomes. Follow-up visits could also create an avenue to provide psychosocial care in the form of ascertaining adequate support for the child and family, as well as an opportunity to provide child sexual abuse prevention and safety teaching to children and families.

Prosecution of child sexual abuse cases in Nigeria

In this review, although a good number of assailants were known, only few arrests were made. In a study where 49 (69.0%) victims reported their ordeal to the police, only 24 (33.8%) perpetrators were arrested [41]. In another study, only 5 (21.7%) out of 23 perpetrators caught were prosecuted [45]. In

Table 4. Prosecution of Child Sexual Abuse cases reported to the police (*n* = 16 studies).

Authors' references	All SA cases (*n*)	Assailants known (*n*, %)	Forensic specimen collected (*n*, %)	Cases reported to police (*n*, %)	Assailants arrested (*n*, %)	Prosecutions (*n*, %)	Assailants sentenced (*n*, %)
Daru et al., 2011[32]	105	81 (77.4%)	NDS	NDS	NDS	NDS	NDS
Abdulkadir et al., 2011[31]	81	79 (97.5%)	NDS	NDS	NDS	NDS	NDS
Ige & Fawole, 2012[42]	72	45 (62.5%)	NDS	17 (23.6%)	NDS	NDS	NDS
Bugaje, et al., 2012[34]	20	14 (70%)	NDS	12 (60%)	NDS	NDS	NDS
Akhiwu et al., 2013[46]	85	75 (88.2%)	NDS	ALL	NDS	6 (7.1%)	NDS
Chinawa et al., 2013[36]	33	NDS	NDS	6 (18.1%)	NDS	NDS	NDS
Olatunya et al., 2013[39]	28	NDS	NDS	17 (60.7%)	NDS	0	NDS
Duru, et al., 2014[45]	33	23 (67.7%)	NDS	5 (21.7%)	NDS	NDS	NDS
Akinlusi et al., 2014[40]	287	210 (73.1%)	No	265 (92.2%)	NDS	NDS	NDS
Badejoko et al., 2014[41]	76	47 (62%)	No	52 (69%)	25 (33.8%)	NDS	NDS
Ashimi et al., 2015[33]	24	20 (83.3%)	NDS	NDS	NDS	NDS	NDS
Hassan et al., 2016[35]	34	20 (58.8%)	NDS	20 (58.8%)	14 (41.2%)	NDS	NDS
Adeleke et al., 2012 [43]	309	246 (79.6%)	NDS	ALL	NDS	NDS	NDS
Ekabua et al., 2006[37]	15	NDS	NDS	NDS	NDS	NDS	NDS
Ezechi et al., 2016[44]	81	42 (52%)	NDS	NDS	NDS	NDS	NDS
Nwolisa et al., 2016[38]	148	61 (41.2%)	NDS	NDS	NDS	NDS	NDS

Note: NDS = Not documented in the study.

some other studies, where there were police involvements no prosecution was made [34, 39]. In Nigeria, literature statistics reported few cases of child sexual abuse, probably due to the social stigma that such a report would earn the victim. However, in Nigeria there are not just few police reports, there are also few trials of perpetrators of child sexual abuse. Instances of inadequate prosecution of CSA cases in Nigeria including overtly lenient sentence granted CSA abuse perpetrators by our judicial system abound [19]. For instance, the Lagos state government with a population of almost 20 million reported 283 cases of child defilement in 2011, out of which only 10 were prosecuted and convicted, which is less than a 10% conviction rate [59].

Some reasons for the underreporting and poor prosecution of CSA perpetrators is associated with the culture of blaming the victim and the desire of victims and/or their families to avoid shame and stigma they often opt to settle out of court with the consequence. As noted by Duru et al. [45], most cases of CSA, especially when perpetuated within the family, remain undisclosed in many parts of Africa. Also, government-based care and law enforcement agencies that ought to support the CSA victims and ensure they get justice are often lacking in skills and commitment. Police officers often lack the requisite specialized training that enable them to handle CSA cases in empathetic and compassionate manner, as well as skills needed to successfully carry out forensic identification of alleged perpetrators. Legislatively, the penalty for acts of CSA is often not severe enough to deter perpetrators.

Limitations of the Study

A major limitation of this study is due to incomplete data existing in most of the retrospective studies reviewed. Also, age of respondents was not routinely categorized in a way that number of CSA victims may be demarcated from adults. Despite these limitations, the findings reported in this review could give a good representation of the state of clinical and forensic services provided to child sexual abuse victims in Nigerian hospitals.

Recommendations and take-home messages

There is a high prevalence of CSA cases among sexually-assaulted cases presented at Nigerian hospitals.

Child sexual abuse victims and their families receive suboptimal medical care due to lack of protocols for the evaluation and management of child sexual abuse cases, and due to poor funding of healthcare facilities.

Currently, only few cases of child sexual abuse get reported to the police and even fewer get to court due to poor forensic skills and social stigma.

There is an urgent need to educate nigerian people about the importance of presenting to hospitals immediately after the occurrence of violence, for receiving appropriate medical treatment and promoting the needed collection of viable forensic evidence that could facilitate the prosecution of sexual abuse perpetrators.

CONCLUSION

There is a high prevalence of CSA cases among reported cases of sexual violence presented at Nigerian hospitals. Social, health, forensic, legislative and judicial services that can deter this undesirable act and facilitate the effective rehabilitation of victims are grossly inadequate. Government agencies, parents, and all responsible adults should help protect children from perpetrators through adequate education and conscious effort to avoid putting children in vulnerable situations. In agreement with Badejoko et al., most acts of CSA in Nigeria are perpetrated by well-known and trusted familiar called for caution by parents and guardians when leaving children alone. Therefore, it is urgent that both the law enforcement agencies and the legislative and judicial arms of government wake up to their responsibility and work cooperatively for ensuring that CSA perpetrators get penalties that are commensurate with this type of crime. Most of the studies reviewed reported the lack of CSA care protocols in Nigeria and inadequate funding resulting in ill-equipped hospitals as the reason for lapses in the hospi-

tal care of CSA victims. It is essential that Nigerian hospitals develop a protocol to aid the efficient provision of care for victims of sexual abuse. Such a protocol should be developed by multidisciplinary teams to promote acceptability and allow for predictability of flow of the sexually-abused patients from one health care centre to another within the healthcare system. Necessary training of healthcare providers to effectively implement this protocol would also be required. The success of SA treatment protocols used in Kenya shows that creating and using similar models is feasible also in other sub-Saharan African states [11]. In situations where the government is unresponsive to the needs of hospitals in terms of funding, hospital administrators and pediatric departments should be proactive in sourcing funds through public private partnerships and applying for grants from children-focused local and international agencies. In conclusion, prevalence of child sexual abuse among sexually-abused cases presented at Nigerian hospital is high and, possibly, underestimated; however, it is urgent that policy-makers provide funding and policy makers implements hospital protocols for giving appropriate medical and forensic management to victims and their families.

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