

Availability and types of post-rape services in government-owned health institutions in Edo State, Nigeria

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Abstract

Background: Healthcare services are vital in the treatment, prevention of complications and rehabilitation of victims following rape. The objective of the study was to identify the types and quality of post-rape services available and offered by Public Health Facilities in Edo State, Nigeria.

Methods: This was a cross sectional study which involved purposively selected units in Public Health Facilities where post-rape care was offered. Data was collected using a checklist adapted from the World Health Organization to objectively assess score the quality and assess the availability of functional facilities for post-rape care services.

Results: Eleven units were surveyed in the four health facilities. The post-rape services available in all four health facilities were already existing health services which had post-rape services embedded within the units in these facilities. No facility had a pre-packaged rape kit; only two (18.2%) units had a private room available for 24 hours where rape victims were managed; HIV and pregnancy testing services were available in all the units while 10 (90.0%) units had post exposure prophylaxis to HIV. All 11 (100.0%) units surveyed were categorized as offering poor quality care using a composite quality of post-rape care score.

Conclusion: The quality of post-rape care offered by Public Health Facilities in Edo State was poor due to inadequate facilities. More resources need to be devoted in meeting the post-rape care needs of victims.

Keywords: Post-rape Services; Health Facilities; Edo State

Introduction

Rape is an "unlawful sexual activity and usually sexual intercourse carried out forcibly or under threat of injury against a person's will or with a person who is beneath a certain age or incapable of valid consent because of mental illness, mental deficiency, intoxication, unconsciousness, or deception [1]. It is a risk factor for physical and mental health problems in persons who have experienced this violent event.[2-4] Such physical and psychological effects vary widely from victim to victim with resultant short and long term sequelae.[2-4] Women who are victims of rape often seek health care for their injuries, even when they choose not to disclose the violent event.[5] Healthcare Providers (HCP) play crucial roles in treatment, prevention of complications and rehabilitation of victims following rape[6] and are in a special position to offer appropriate support and

referral to other resources and services while ensuring a safe and confidential environment to aid the disclosure of violence.[5]

There are different models of delivering care to victims of rape; the World Health Organization (WHO) recommends that countries require multiple models of care for victims of rape and sexual violence, for different levels of the health system. However, WHO posits that priority should be given to providing service delivery at the primary level of care.[5] In resource-poor countries, various models of care are described but models for service delivery often depend on the availability of financial and human resources.[5] Health care for rape victims could be delivered through health clinics or centres; district and regional hospitals and through one-stop centres.[5] Health centres and clinics have the advantage of being located close to the community and also have the ability to provide some core services. Post-

rape services can also be delivered via district and regional hospitals (Specialist and Tertiary centres). They are usually equipped to provide 24-hour services; have specialized services; can be centralized in one Department (Emergency Department, Gynaecology, Reproductive Health, HIV/STI) or distributed throughout the hospital. However, these services may lead to reduced accessibility especially if services are split across Departments and if some services are only available during working hours.[5] One-stop Centres or Rape Crisis Centres are innovative modes of offering post-rape services to victims of rape. Their advantages include providing more efficient and coordinated services; providing a full range of services (sometimes including police, prosecutors, social worker, counsellors, psychological support, etc.) in one setting.[5] Traditional Forensic Centres is another model of delivering care in which the assaulted person first reports the rape incident to police and then the police refer the individual to a forensic medical examiner. Post-rape care could also be delivered via a hospital-based Sexual Assault Care Centre with a Sexual Assault Nurse Examiner (SANE) programme [7].

This wide variation in practice implies a wide variation in post-rape care, as research has found. There are however arguments on if post-rape care should be delivered via already existing general health services or modelled after one-stop centres where a range of services are delivered. In a bid to ensure the availability of 24-hour services, many services for rape victims are located in the casualty section of hospitals. Several reasons however make these hospital sections most unsuited in dealing with rape patients due to their noisy, busy, chaotic, bloody and frightening nature. These are hardly the ideal environment for someone in a state of shock. Moreover, unless rape victims have suffered serious physical injuries, they will be bypassed in order to treat patients whose conditions are more immediately life-threatening. [8]

In many countries, the health and medico-legal components of the service are offered at different times, in different places and by different people. This situation leads to inefficiency and most importantly, places an unwarranted burden on the victim.[2] Facilities dedicated to specially manage victims of rape have several challenges. This includes scarcity of human and financial resources, lack of appropriate training and lack of clinical competence in clinical forensic medicine. These challenges are compounded by staff apathy, resistance and non-adherence to protocols,[9] which may reduce the quality of care offered to clients who patronize these facilities.

The objective of this study was to identify the types and quality of post-rape services available/offered by Public Health Facilities in Edo State, Nigeria.

Methods

The study was conducted in Benin, Edo State, which is one of the states in the South-South geo-political zone of Nigeria. Three public health facilities and one Institution-based health facility, all located within and around Benin City, were purposively selected for the study. The public health facilities included- University of Benin Teaching Hospital (UBTH), Central Hospital (CH) Benin and Stella Obasanjo Hospital (SOH). These secondary and tertiary government-owned health facilities were employed because it is required by the Law Enforcement Officials that rape victims obtain treatment and a medical report from government-owned facilities. In addition, the University of Benin (UNIBEN) Health Centre (an Institution-based health facility) was selected because it caters for the health needs of students who are young persons and at higher risk of rape or sexual violence. Other specialized tertiary government-owned facilities like Federal Neuro-psychiatric hospital based in Benin was excluded because this study sought to investigate facilities where care immediately following the event was given.

University of Benin Teaching Hospital is an 850-bed tertiary health facility with 14 clinical departments owned by the Federal Government of Nigeria and located in Egor Local Government Area. This hospital provides out-patient, general and specialised care as well as surgical, dental and paediatric services to residents in Edo and neighbouring States. The Central Hospital (CH) Benin is a secondary health facility owned and managed by the Edo State Government. The health facility, which is located in Oredo Local Government Area of the state, is a 500-bed health facility, with 10 clinical departments. The hospital provides out-patient, general and specialised care as well as surgical, dental and paediatric services to residents in Benin City and other parts of Edo State. Stella Obasanjo Hospital, Benin City is a 300-bedded State government with 4 departments that is owned facility located in Ikpoba-Okha Local Government Area. The hospital provides out-patient, general and specialised care to individuals in Benin City and its environs. Located inside the University campus (in in Ovia North-East LGA), the University of Benin Health Centre is a 20-bed facility established to cater for staff and students of University of Benin. The Centre has to cater for staff and students in two campuses. The facility has a Medical Department with support from other Departments such as Nursing, Pharmacy, Laboratory and Records.

A descriptive cross-sectional study design was utilized for this study. Four government-owned Health Facilities in four LGAs of the state were purposively selected. In the Health Facilities, departments with Out-patient units where rape victims are first managed before referrals

were selected as the unit of enquiry. These units included General Out-patient units and Accident and Emergency units of the selected Health Facilities.

A Facility Observational Checklist adopted from WHO Checklist of Needs for Clinical Management of Rape Victims in a Low-Resource Setting [10] was used to objectively assess the availability and quality of care offered to the victims. Basic and functional facilities needed for post-rape care were noted in the checklist.

A checklist of 38 questions was used to assess the types, availability and quality of post rape services in the departments and units of the Health Facilities. For each equipment or service that was available, a 'Yes' response was ticked and a score of "1" was allotted. For equipment or service not available, a 'No' response was ticked and a score of "0" was given. The maximum obtainable score was 38. Scores were summed and converted to percentages. Scores of less than 70.0% were classified as the department or unit having facilities or services that offered poor quality of post-rape care. Conversely, a score of 70.0% and above was classified as the department or unit having facilities to offer good quality of post-rape care. This scoring was adapted from a study on quality of service in a health care setting [11].

Data was analyzed using IBM-SPSS version 21 software. Categorical data were presented as frequencies and proportions while continuous data like mean quality of care scores that were normal in distribution were presented as mean and standard deviation. Statistical inference was carried out using the independent Student's t-test and one-way ANOVA to compare means of numerical data such as mean quality of care scores in Emergency and Out-patient units and between the health facilities surveyed.

Results

The post-rape services available in the four health facilities (secondary and tertiary) were based on already existing health services which had post-rape services

embedded within the units in these facilities. Table 1 shows the 11 units surveyed where post-rape services were available and their hours of operations. The post-rape services were offered within the routine activities of out-patient departments or emergency medical services. In the case of the out-patient departments, the services did not run 24-hours but ended when the clinics closed for the day and did not operate during weekends unlike the post-rape services offered within Emergency departments which were available 24 hours daily and seven days a week.

The services available for post-rape care in the four facilities included emergency services, Out-patient care, 24 hours clinical services and weekend services (Table 2). All the facilities offered HIV counselling and testing in addition to other laboratory services. No health facility surveyed offered routine forensic DNA testing. Two health facility units had private rooms for examining patients available 24 hours daily.

Availability of post-rape care management protocols, drugs and administrative supply for post-rape care is shown in Table 3. No health facility/unit had written clinical management guidelines available. Eight (72.2%) facility units had a health worker available on call 24 hours daily. Forms for recording post-rape care were not available in any health facility unit; only 1 (9.1%) had forms for obtaining consent for examinations from the victims available and 2 (18.2%) health had faulty safe locked filing space for confidential storage of records available. Pre-packaged rape kit was not available in any health facility unit; however, all 11 (100.0%) health facility units had speculums and cotton swabs for sample collection All 11 (100.0%) units surveyed were categorized as offering poor quality post-rape care using a composite quality of post-rape care score (Table 3). All the units in the four facilities surveyed had a mean (sd) quality of care score of 21.2±1.40 while Emergency Units and Out-patient Units had mean scores of 21.5 ± 1.7 and 21.0 ± 1.3, respectively. There was no statistically significant difference between the mean quality score of

Table 1: Operating hours of different units offering post-rape services in health facilities surveyed

Facility	Unit in facility	Time of operation
Facility A	General Practice Clinic	10 hours/7 days per week
	Adult HIV Clinic	8 hours/5 days per week
	Accident and Emergency Unit	24 hours/7 days per week
	Gynaecological Emergency Unit	24 hours/7 days per week
	Childrens' Emergency Unit	24 hours/7 days per week
Facility B	Accident and Emergency Unit	24 hours/7 days per week
	Gynaecological Clinic	8 hours/5 days per week
Facility C	Childrens' Emergency Unit	24 hours/7 days per week
	Accident and Emergency Unit	24 hours/7 days per week
Facility D	General Out-Patient Clinic	8 hours/5 days per week
	Emergency/Out-patient Unit	24 hours/7 days per week

Table 2: Services offered in health facilities surveyed

Services offered	Health facility			
	Facility A	Facility B	Facility C	Facility D
Emergency services	+	+	+	+
Out-patient services	+	+	+	+
24 hours clinical services	+	+	+	+
Weekend services	+	+	+	+
Private room available 24 hours	+	-	-	+
Female chaperone	+	+	+	+
Routine forensic DNA testing	-	-	-	-
Pregnancy testing	+	+	+	+
HIV counselling & testing	+	+	+	+
Laboratory services	+	+	+	+
Sterilization services	+	+	+	+

Table 3: Drugs, equipment and supplies available in health facilities surveyed

Variable	Frequency (n=11)	Percent
Drugs		
Emergency contraceptives	10	90.1
STI prophylaxis	11	100.0
Post exposure prophylaxis to HIV	10	90.1
Tetanus toxoid	11	100.0
Hepatitis B vaccine	9	81.8
Analgesics	11	100.0
Anxiolytics	11	100
Medical supplies		
Fixed angle lamp	6	54.5
Magnifying glass (colposcope)	0	0
Examination gloves	11	100
Sharp container	11	100
Syringes	11	100
Suturing materials	11	100
Sanitary towels	11	100
Emergency clothing	1	9.1
Covering cloth during examination	4	36.4
Pre-packaged rape kit	0	0.0
Speculum	11	100
Cotton swab for sample collection	11	100
Paper sheet for debris collection	0	0
Paper bag for collection of evidence	0	0
Tape measure	1	9.1
Administrative supply		
Written protocol	0	0.0
Forms for recording post-rape care	0	0
Consent forms	1	9.1
Medical charts with pictograms	0	0
Leaflets on support services	0	0
Safe filing space for records	2	18.2
Composite Quality of care score		
Good	0	0.0
Poor	11	100.0

out-patient compared to the emergency units ($p = 0.513$) or between the 4 different health facilities ($p = 0.154$).

Discussion

Availability of post-rape services ensures appropriate care and attention is offered to victims after a rape incident. The type of post-rape services available in this study was an already existing services within the health facilities where care was provided within the facilities. Services were provided for 24 hours in cases where post-rape care was accessed in the Emergency Unit of the hospital. This mode of providing care is similar to that described in Kenya and South Africa where post-rape care was provided within already existing health facilities while diagnostic testing was provided in different parts of the hospital [12-14]. This model of post-rape care is popular in developing settings due to the cost of setting up specialized rape services. This model however fraught with issues of lack of privacy to the rape victim and long waiting times for the victim in order to access care [12]. In some cases attention is first given to persons with obvious signs of injury or life-threatening medical conditions. This may influence the victims' decision to seek care. Delay in seeking appropriate medical care may result in unwanted pregnancies, sexually transmitted infections and chronic mental health issues such as rape trauma syndromes or Post Traumatic Stress Disorder (PTSD). HIV infection may also result when appropriate post exposure prophylaxis is not used by the rape victim [15] which could invariably increase the burden of HIV infection in the community while further placing pressure on already stretched Health Facilities. Unless special interventions are put in place, the location of services in Emergency units' compromise the quality of care offered to victims of rape [13]. Specialized services such as One Stop Service Centre's or Sexual Assault Referral Centre (SARC) can assume vital roles in the management of rape victims. The Mirabel Centre, Lagos Nigeria is an illustration of this specialized care centers in a resource constrained setting.[16] The Centre, the first of its kind in Nigeria, is run by a Lagos-based civil society organization, Partnership for Justice with support from St Mary's Sexual Assault Referral Centre, Manchester, United Kingdom and in collaboration with the Lagos State Ministry of Health. This SARC provides victims of rape with immediate emergency medical treatment, forensic medical examination done by specially trained doctors and nurses and crisis support handled by specially trained counsellors.[16]

Researchers in South Africa have also identified the need to improve quality of care provided to victims of rape [17]. In this study, supplies to provide good quality

post-rape care in all the facilities were inadequate. However, specific facilities for the medico-legal components of care were either scarcely provided or not available at all in several units within the health facilities. Rape kits and bags for collecting evidence were not available in any facility, although some contents of the kits such as swabs, speculums and syringes were available in all the health facilities. A similar situation of non-availability of pre-packaged rape kits in health facilities was reported in an earlier study in Kenya [14]. To remedy this situation, rape kits were locally assembled by the sterilizing and surgical department in the hospital. The kit included gloves, swabs and plastic bags, glass slides for preparing specimen, mounts, sanitary pads and a speculum [14]. This is a good illustration of using locally available options to surmount existing challenges in delivering quality health care especially in resource constrained setting.

The non-availability of materials for post-rape care may predicate on what the health facilities perceive as their roles in the care of rape victims which includes the provision of medical care and the treatment of injuries. There might be a perception that medico-legal aspect of post rape care is the responsibility of the police and judiciary and hence the health facilities focus solely on the medical aspect of care. This view is supported by the finding of no routine forensic or DNA testing in any health facility surveyed. This finding is similar to the results of a review of post-rape services in Kenya which highlighted lack of DNA testing facilities at local hospitals but were found only in the Government laboratories at national levels [14]. Generally, care made available to rape victims needs to be holistic in order to achieve the desired outcomes. A comprehensive service includes health care, legal support and protection for victims. Forensic examination, specimen collection and safe filing space for records were scarcely available from the review of equipment in the Health Facility in this study. These services provide the vital link between health care and the criminal justice system.[17] Furthermore, crucial to the effective use of medico-legal evidence is the establishment of a secure chain of custody to prevent the evidence from being compromised before analysis and possible court use.[18] Safe filing space for records were only available in less than one-fifth of Departments and Units surveyed. Lack of storage facilities for evidence collected by health care workers remains a barrier to collection of non-biological forensic evidence [19]. In this study only about a third of departments and units surveyed had private rooms available for 24 hours. A study in South Africa reported a slightly higher figure with less than half (47.4%) of 31 facilities having private room for examining rape victims and in some cases these rooms were locked for over several hours.[20] Privacy may be violated by non-medical personnel who may

want to be available during the examination of the victim. However, our study revealed that in all the Health Facilities a female chaperone was always available during the examination of a rape victim. Studies in South Africa have recorded instances where non-medical personnel or even the police were available during such examinations [21,22]. This situation hampers the privacy of the victim, reduces the information the victim is likely to provide and may affect the quality of care given to these victims. These victims may also fear that would likely suffer victimization from these personnel and individuals.

This study also revealed that there was no protocol or guideline for treatment of rape victims available in any facility. This is similar to findings from studies in Kenya and South Africa which revealed differing low levels of availability of post-rape guideline [14,20]. Lack of written documents may mean that Health Professionals deliver different options of care to rape victims which are not streamlined. Written documents or protocols have the ability of dispelling ambiguity of treatment regimens meaning that these victims are given better quality of care. Standard protocols and guidelines improve the quality of treatment and support provided to victims of rape; guide the process of forensic evidence collection and may serve as a useful tool to help health care professionals build their capacity to provide adequate level of care to rape victim [2].

Limitations

Due to the fact that care was made available in different sections of the health facility, it may be possible that some equipment for post rape care which was sought for in the Primary Units for post-rape care were available in these other Sections within the Health Facility.

Conclusion

The post-rape services available in Edo State operated as services running from an already functioning health facility departments and units which offered care as part of its routine care. The quality of post-rape care offered by public health facilities in Edo State was poor due to inadequate facilities and absence of forensic testing. There needs to be improved practice of medico-legal aspect of post-rape care by ensuring provision of facilities such as pre-packaged rape kits which can be locally assembled in the Health Facility. In addition, specialized care areas within Public Health Facilities where comprehensive post-rape care can be carried out should be set up.

List of abbreviations

HIV: human immunodeficiency syndrome; STI: sexually transmitted infections.

Declarations

Ethics approval and consent to participate

Ethical approval to conduct this research was obtained from the University of Benin Teaching Hospital Ethics and Research Committee. Permission was obtained from Heads of the selected health facilities. In order to ensure confidentiality serial numbers rather than names were used to identify the health facilities. All data were kept secure and made available only to the Researcher.

Consent for publication

Not applicable.

Availability of data and materials

The datasets analyzed during the current study are not publicly available due to the fact the data were obtained from patients' medical records and as such are confidential but are available from the corresponding author on reasonable request.

Competing interest

No conflict of interest is associated with this work.

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Contribution of authors

We declare that this work was done by authors named in this article and all liabilities pertaining to claims relating to the content of this article will be borne by the authors.

NM and ECI were both involved in the conception, design, data analysis and write up of the manuscript. Both authors read and approved the manuscript for publication.

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