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# HAVE YOU SEEN A RAPE KIT? A SNAPSHOT AT THE QUALITY OF CARE OF RAPE SURVIVORS IN NIGERIAN TERTIARY HOSPITALS

***Olusegun O. Badejoko*, Olufemi Kuti*, Adebimpe O. Ijarotimi*, Bolaji O. Badejoko**, Oluseyi F. Oke*, Dare S. Olaiya*, Ayodeji Idowu*, Babatunde A. Olofinbiyi*, Solomon O. Ogunniyi****

**Department of Obstetrics and Gynaecology, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.*
***Department of Paediatrics, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.*

## ABSTRACT

**Context:** The rape kit has become a fundamental tool in the evaluation of the rape survivor in many countries. Its availability and use in Nigeria has however not been documented.

**Objective:** To assess the current availability and usage of the rape kit in Nigerian tertiary hospitals, and evaluate the management of rape survivors.

**Methodology:** Resident Doctors attending the Obstetrics and Gynaecology update course, held in Abuja in March, 2009 were interviewed using a self-administered questionnaire assessing experience in rape management, knowledge about the rape kit and its availability, as well as current management of rape survivors.

**Results:** There were 138 respondents from 25 tertiary hospitals, with a male-to-female ratio of 2.8**:**1 and a mean duration of 3.3 (SD 1.4) years in training. 120 (87%) had personally managed one or more rape survivor(s), but none of the respondents had ever seen a rape kit, and only 29% were aware of it. Although all the respondents indicated availability of emergency contraception, antibiotics and tetanus prophylaxis in their centres, only 32.4% had access to HBV vaccine, and about 8% indicated lack of HIV prophylaxis. Only 28.7% and 45.6% indicated access to clinical psychologists and medical social workers respectively.

**Conclusion:** The rape kit is not available in Nigerian tertiary hospitals. We recommend its provision, and regular training of doctors, especially Obstetrics and Gynaecology Residents on rape management, to improve the care of rape survivors in Nigeria.

**Key Words:** Rape, Rape kit, Rape survivor, Nigeria.

## INTRODUCTION

Rape is a diagnosis that can only be established in a court of law. Unfortunately, the appropriate legal prosecution of rape cases may be hampered by lack of adequate knowledge of healthcare personnel about their dual compendium of responsibilities – medical and legal, in the management of the rape survivor; the latter of which is best achieved by the appropriate performance of a rape kit examination, also known as the forensic medical examination.

The rape kit is a box, often made of cardboard or plastic, containing materials required for the collection of forensic evidence from the rape survivor, as well as a written protocol detailing the specimens to be collected and how. It was first developed by Louis R. Vitullo, hence its old appellation as the Vitullo kit. It is now also variously referred to as the sexual assault evidence collection kit, sexual assault forensic evidence (SAFE) kit, and sexual offence evidence collection kit. The materials contained in it include: (1) Forms for documentation, (2) Blood sample bottles, (3) Urine sample bottle, (4) Paper bags for collection of clothing, (5) Large sheet of paper for the patient to undress over, (6) Cotton swabs for biological evidence collection, (7) Sterile water, (8) Sterile saline, (9) Glass slides, (10) Unwaxed dental floss, (11) Wooden spatula for finger nail scrapings, (12) Nail clipper, (13) Comb for collection of loose pubic hairs, (14) Envelopes or boxes for individual evidence samples, and (15) Labels.

***Correspondence:***
***Dr Olusegun O. Badejoko,***
*Department of Obstetrics and Gynaecology,*
*Obafemi Awolowo University Teaching Hospitals Complex,*
*Ile-Ife, Nigeria.*
*E-mail – oobmed@yahoo.com*

Anonymous *"Jane Doe"* rape kit examinations are now widely available for rape survivors in developed countries, and at no cost to the patient. However, in Nigeria, little appears to be known about the rape kit. This study was therefore conceived to assess the quality of care of rape survivors in Nigerian tertiary hospitals in order to obtain an insight into the quality of care of rape survivors in the country as a whole; with a special focus on the legal aspects of management such as the performance of forensic medical examinations, awareness and availability of rape kits and management protocols, as well as preservation of forensic evidence and appearance in court.

## METHODOLOGY

This is a descriptive questionnaire-based study involving Obstetrics and Gynaecology Resident Doctors attending the update course organized by the West African College of Surgeons held in Abuja in March, 2009. The instrument used was a pre-tested, semi-structured, self-administered questionnaire with three sections. Section one included biodata, involvement in the management of rape survivors and number of cases personally managed, as well as the availability of a written institutional rape management protocol. Section two dealt with awareness of the rape kit, knowledge of its contents, availability in training institution, and its use and subsequent handling. While section three covered the examination and treatment of the rape survivor as currently practiced in the training institution, and court appearance.

The questionnaires were distributed to 150 randomly selected course participants and recovered promptly. The reason for refusal was obtained from course participants refusing to complete the questionnaires. All completed questionnaires were verified and collated. Data analysis was done using SPSS 13.

## RESULTS

There were 138 respondents representing 92 percent of the 150 course participants randomly selected for this study. Of the 12 non-responders, 9 voiced suspicion of the motive of the study and fear of possible consequences for their training institutions, as their reasons, while in the remaining 3, the reasons were undisclosed. The respondents were spread across 25 different Residency training institutions within Nigeria, with representation from each of the country's six geo-political zones.

The ages of the respondents ranged between 28 and 45 years, with a mean age of 36.4 ± 3.7 years, although age was undisclosed by 16 (11.6%) of the respondents. There were 102 males and 36 females, giving a male to female ratio of 2.8**:**1, and of the 138 respondents, 104 (75.4%) belonged to the Registrar cadre, while the remaining 34 (24.6%) were Senior Registrars. The respondents' duration in Residency training at the time of this study ranged from 1.2 years to 8 years, with a mean of 3.3 ± 1.4 years.

120 (87%) of the respondents had personally managed one or more cases of alleged rape, while 18 (13%) had not. The number of cases reported to have been managed by each of the respondents with personal experience in rape management ranged from 1 to 20, with a mean of 4.6 ± 3.9 cases. The various sources of the respondents' knowledge about rape and its management were stated as shown in table 1.

**TABLE 1.**

With respect to institutional rape management protocols, only seven respondents indicated its availability in their centres. However, two out of this seven did not state their training institutions, and in all the remaining five there were other respondents from the same institution answering in the opposite. Overall, 131 respondents (94.9%) reported non-availability of rape management protocols in their training institutions.

Only 40 respondents (29%) were aware of the rape kit, while the remaining 98 (71%) were not aware. When required to list any seven out of the 15 or more contents of the rape kit, none of the 40 respondents who were aware of the rape kit was able to list more than 5 contents correctly, and the mean number of contents correctly listed by these respondents was 3.1 ± 1.3. Respondents from all 25 residency training institutions represented in this study indicated that the rape kit was not available in their centres, and none of the 138 respondents had ever seen a rape kit.

Two-thirds (92) of the respondents however indicated as routine, the collection of one forensic specimen or the other in the management of rape survivors in their training institutions, but there was no provision for storage of these specimens after collection. The various forensic specimens listed by these respondents are shown in table 2.

**TABLE 2.**

The maximum time interval between the rape incident and the survivor's presentation to the hospital, within which these specimens would still

be collected, was specified by only half (46) of these respondents. The various time intervals quoted are shown in table 3, ranging from 24 hours to > 5 days.

**TABLE 3.**
The responses to the question of routine availability or otherwise of the various treatment requirements for the proper management of the rape survivor in the respondents' training institutions are shown in table 4.

**TABLE 4.**
Out of the 137 respondents to the question on court appearance as an expert witness in cases of alleged rape, 2 (1.5%) had appeared in court.

## DISCUSSION

It was observed that rape is a problem which cuts across all segments of the country, as majority of the respondents, spread across all the six geopolitical zones, had personally managed one or more cases within a mean duration of 3.3 ± 1.4 years in Residency training, as at the time of this study. There however appears to be gaps in the standard of management of the patients, as none of the training centres represented was found to have an established institutional rape management protocol, thus, resting the quality of management of each case primarily on the depth of knowledge and personal experience of the Resident Doctor on call at the time of patient presentation. Unfortunately, the depth of this requisite knowledge, especially the forensic aspect, was found in this study to be rather poor.

None of the 138 respondents in this study had ever seen a rape kit, neither was the rape kit available in any of the 25 Residency training institutions represented in this study. This is unfortunate considering that the rape kit has become very fundamental in the forensic management of rape survivors in many countries, and is even provided free of charge in some of these countries. The reason for its non-availability in Nigerian tertiary hospitals is however beyond the scope of this study.

Less than a third of the respondents had ever heard or read about the rape kit, and even among those who had, the knowledge of the contents of the kit, its use and subsequent handling was very poor. This should be viewed against the background that rape kit examinations are now being performed by nurses and other trained healthcare personnel in some parts of the world. Although two-thirds of the respondents in this study indicated the collection of one forensic specimen or another as routine in their centres, the specimens indicated were limited. Moreover, there was no provision for preservation and storage of the specimens collected, and analysis which had to be immediate where performed at all, was mostly limited to microscopy of vaginal smears for the presence of spermatozoa.

The lack of provision for preservation and storage of forensic evidence deprives the rape survivor of the succor that lies in knowing that the assailant can one day be identified and brought to book. In the United States of America for instance, forensic specimens from rape survivors are stored in the Police or Hospital Forensics Departments, for analysis whenever requested. The present study revealed the absence of such facilities in the Nigerian tertiary hospitals represented, unveiling the likely resultant inability to successfully prosecute rape cases due to lack of vital evidence. This perhaps partly explains the observation that only 2 out of 137 respondents in this study had ever been in court as witnesses in rape cases.

The stated maximum time interval between the rape incident and the survivor's presentation to the hospital, within which forensic specimens would still be collected, varied widely among the respondents. The various intervals stated were however not based on any institutional policies or guidelines. This further highlights the arbitrariness in the current management of rape survivors in Nigeria.

Regarding the availability of the requirements for proper medical management of the rape survivor, the findings of this study were not as bleak. Emergency contraception, prophylactic antibiotics and tetanus immunoprophylaxis were routinely available in all the centres represented. However, there was an obvious need to improve the availability of both active and passive immunization against hepatitis B, maximize the availability of antiretroviral prophylaxis, and broaden access to the services of the clinical psychologist and the medical social worker.

Almost half (45%) of the respondents in this study stated that personal study was the only source of their knowledge about rape and its management, and only about a quarter (29%) of the respondents had ever had lectures on the topic. Much fewer still had ever attended seminars, group discussions or workshops on management of rape. For a topic of such importance, this is quite surprising! Interestingly, the importance of the topic was attested to as the

Obstetrics and Gynaecology Faculties of both the National Postgraduate Medical College of Nigeria and the West African College of Surgeons each featured a question on rape management in their theory examinations in May and October 2008 respectively. It is however unfortunate to note that this topic does not feature in the biannual Obstetrics and Gynaecology update courses organized by both Colleges.

## Conclusion

This study reveals an urgent need to initiate proper training of Obstetrics and Gynaecology Residents, and indeed all Doctors in Nigeria to attain proficiency in the evaluation and management, both medical and legal, of the rape survivor. It also exposes the need to investigate the evident non-availability of the rape kit nationwide with a view to ensuring its ready availability in all centres managing rape cases, thus ensuring some standard in the management of these patients. Even though it may not be a panacea to all the problems of the rape survivor, and it may not reduce the task of the healthcare, law-enforcement and judicial systems, the rape kit, by affording the rape survivor possible access to justice, must be considered a fundamental tool in the management of cases.

## COMPETING INTERESTS

The authors declare that they have no competing interests.

## AUTHORS' CONTRIBUTIONS

OOB conceived of the study, drew up the protocol, analyzed the data, and prepared the manuscript. AOI, BOO, OFO, BAO, DSO and AI contributed to study design, supervised data acquisition, and participated in data analysis. OK and SOO contributed to study design and reviewed the manuscript. All authors read and approved the final manuscript.

**TABLE**

**1: Sources of respondents' knowledge about rape and its management**

| Source | Number of Respondents (%) |
|---|---|
| Personal study | 103 (74.6) |
| Lectures | 40 (29.0) |
| Seminars | 27 (19.6) |
| Group discussions | 15 (10.9) |
| Workshops | 4 (2.9) |

**TABLE 2: Forensic specimens collected as listed by 92 respondents.**

| Forensic specimen collected | Number of respondents indicating it (%) |
|---|---|
| Vaginal swab | 90 (97.8) |
| Pubic hair combings | 28 (30.4) |
| Clothing | 22 (23.9) |
| Nail scrapings/clippings | 19 (20.7) |

**TABLE 3: Forensic evidence collection time limit as indicated by 46 respondents.**

| Evidence collection time limit | Number of respondents (%) |
|---|---|
| 24 hours | 22 (47.8) |
| 48 hours | 6 (13.1) |
| 72 hours | 8 (17.4) |
| 4 days | 2 (4.3) |
| = 5 days | 8 (17.4) |
| **Total** | **46 (100.0)** |

**Table 4: Treatment requirements for rape survivors, routinely available in respondents' training institutions.**

| Treatment | Number of respondents indicating its routine availability in their centre (%) |
|---|---|
| Antiretroviral prophylaxis | 125 (91.9) |
| Hepatitis B virus vaccine | 44 (32.4) |
| Hepatitis B immune globulin | 7 (5.1) |
| Emergency contraception | 136 (100.0) |
| Prophylactic antibiotics | 136 (100.0) |
| Tetanus immunoprophylaxis | 136 (100.0) |
| Clinical psychologist | 39 (28.7) |

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