

Ethical issues in knowledge, perceptions, and exposure to hospital hazards by patient relatives in a tertiary institution in North Western Nigeria

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Abstract

Introduction: Patient relatives are a significant part of the health care team in any hospital setting. This study determines their knowledge, perceptions, and factors responsible for their exposure to health hazards at the Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Kaduna State. The outcome of this study is intended to help the hospital managers to have a reference to make plans for the patient relatives' welfare and also address the ethical issues regarding patients' relatives safety while in the hospital.

Materials and Methods: This is a cross-sectional descriptive study involving 100 participants selected by systematic random sampling technique from the ten admission wards of the ABUTH. The data were analyzed using the Statistical Package for Social Sciences IBM 20 and STATA SE12.

Results: The mean age of the respondents was 35 years. They were mainly Hausa (58%), female (79%), and Muslims (76%). About 21%, 25%, and 54% of the respondents have poor, fair, and good knowledge, respectively, with a mean knowledge score of 33.3% while 24% perceived that blood urine and feces from patient relatives are safe to handle. Sexual harassment (13.3%), abusive insults from health care workers, (13.3%) and aggression from other patients were reported. Being the sole caregiver, type of illness, handling of patients' blood and feces, and length of hospital stay were significantly associated with exposure to hospital hazards ($P < 0.05$, $\chi^2 > 1$, odds ratio > 1).

Conclusion: The participants' knowledge and perception of hospital hazard were poor. Abusive insults by health workers, sexual harassment, and indiscriminate handling of patients' specimen constitute major ethical challenges in this setting. The hospital management should have a guideline specifying the roles and responsibilities of patients and their relatives. There is a need for the health care workers' ethics education and safe accommodation for patient relatives.


Key words: Admission, compliance, hazards, hospital ethics, patient relatives

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Introduction

A relative is a family member, friend, or neighbor looking after a person suffering from any kind of disability or

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illness.^[1] Patients' relatives are important members of the health care team; they are important human resources for the sick family members.^[2] These are usually the significant others who first recognized the need for the patients to seek medical help, advise him to do so, accompany the patients to the hospital, get him registered and bring him to the consulting room to see the medical experts.^[3,4] Sometimes, they explain the patient conditions to the medical practitioners, pay for his bill which is usually out of pocket and may even be catastrophic to the relative caregivers.^[5] Usually, a family member is assigned to stay with the patient until the client is discharged from the hospital.^[6,7]

However, when an individual continues to stay in the hospital for long, they may be exposed to nosocomial infections such as *Candida* spp. *Staphylococcus* and *Pseudomonas*.^[8] A very hazardous source of hospital hazard is the indiscriminate handling and disposal of hospital biomedical waste generated during diagnosis, treatment, nursing care, or immunization services.^[9] The waste produced in the course of health care activities constitute a higher potential for infections and injury than any other type of wastes.^[10] The sputum, blood, urine, feces, and any other bodily discharges of patients can be very dangerous as we have seen in the cases of *Ebola virus* epidemics in some West African nations recently.^[11]

It has been noted in previous studies that exposure to physical hazards due to needle stick injury poses a great danger transmitting nosocomial bloodborne infections such as the HIV and viral hepatitis,^[12] while airborne aerosols and droplets of washing and cleaning liquids may constitute chemical hazards resulting in chronic poisoning and allergic reactions.^[13] Undue exposure to cytotoxic, antiviral drugs, hormones, bioengineered drugs, and other miscellaneous drugs have a potential for causing cancer, developmental or reproductive toxicity to the exposed organs.^[14]

Common social and psychological hazards observed in hospital settings are verbal threats, physical assaults, significant depression, anxiety, and neurological deficits.^[15-18]

This study determines the prevalence, knowledge, nature, and risk factors associated with the exposure to hospital hazards by the respondents. It also examines the ethical issues in knowledge, perceptions, and pattern of exposure to these hazards. The outcome of this will help the hospital management to have a reference study to make plans for the patient relatives' welfare and also to address the ethical issues regarding patients' relatives' safety at the Ahmadu Bello University Teaching Hospital (ABUTH), North Western, Nigeria.

Materials and Methods

Study location

The study was carried out the ABUTH, Shika, Zaria complex. The hospital offers health services not only to people residing in Zaria but also in surrounding districts and states. This ultra-modern complex also serves as a referral center for cases from all over the Nigeria federation to its various specialty clinics. It has been designated a center of excellence for radiotherapy and oncology for the treatment of cancer. It has a bed capacity of 1000 and a total patient admission turnover of more than 10,000 annually. The hospital has clinical departments, wards, Outpatient Department, Radiology Department, Accident and Emergency Unit (A and E), laboratories, operating theaters, clinics, Intensive Care Unit, and Administrative Departments. The study population comprises patient relatives in the hospital premises who have spent at least a day within the hospital.

Study design

This is a cross-sectional descriptive study involving 100 participants selected by the systematic sampling technique from the male medical, female medical, male surgical, female surgical, pediatric medical, emergency pediatric ward, A and E, psychiatry, obstetrics, and gynecology wards. Ten patients were equally allocated to each ward, and these were selected by systemic random sampling technique using the available number of patients' relatives in each ward who met the selection criteria as the sampling frame. The data were collected with structured questionnaires [Appendix 1 and 2]. These were well-rehearsed by the researchers and the research assistants during the planning meeting to ensure accuracy and uniformity in questions to be asked the respondents. The questionnaires were administered by the second author assisted by two well-trained research assistants. The questionnaire design started with an introductory informed consent which the patients' relatives were requested to read before they respond to the questions. This was also carefully read to the illiterate respondents by the researcher to seek their consent before their responses to the questions. The permission to carry out the research was obtained from the Ethical Committee of the ABUTH, Shika, Zaria. The data collectors translated the questions to the Hausa language for the illiterate respondents who were mainly Hausa. The questionnaire contains three sections; Section A was on the sociodemographics, Section B was on the knowledge of the relative on hospital hazards, while Section C was on the exposure to of the participants to hospital hazards. The questionnaires were interviewer-administered. They were collated after the data collection; data cleaning were done each day before entry into the computer. Data analysis was done with the Statistical Package for Social Sciences

(IBM SPSS) version 20 and the StataCorp STATA SE 12. Quantitative variables were summarized using appropriate measures of location and variability such as the mean and the standard deviations, whereas categorical variables were presented as frequencies and percentages. The Chi-square test was used to test for significant associations between categorical variables. The value $P \leq 0.05$ was considered statistically significant. Binary logistic regression analysis was used to determine factors that were significantly associated with respondents' exposure to hazards and quantitative variables such as the age and number of days in the hospital. The minimum sample size calculated using the Cochran's formula was 66; this was however increased to 100, this was to increase the Power of the study.^[19]

Ethical consideration

Approval for the study was obtained from the ABUTH, Zaria Research Ethical Committee. Inform verbal consents were obtained, and their names were not demanded to ensure confidentiality. [Appendix 3].

Limitation of the study

Berksonian bias might occur in the hospital-based study and oral reports from the participants is liable to information bias.^[19]

Results

The mean age of the respondents was 35 years, the ages range from 11 to 70 years, they were mostly Muslim (76%), female (79%), Hausa (58%), and unemployed homemakers (67%); about 69% of them were from Kaduna state, while others were from the neighboring North Western states in Nigeria, most had no formal education (34%). Overall, 43% of the respondents experienced, at least, one type of hospital hazard during the hospital stay. Approximately, 21%, 25%, and 54% of the respondents have poor, fair, and good knowledge, respectively, with

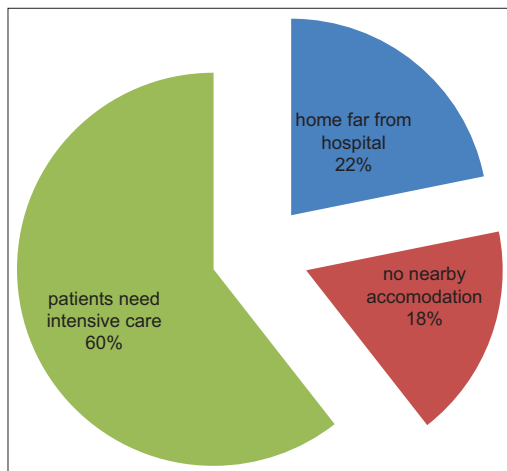


Figure 1: Patients' relative reasons for sleeping in the hospital admission wards

Table 1: Knowledge of the routes of transmission, sources, and risk factors of hospital hazards

Knowledge variables	Frequency (%) of respondent with correct knowledge
What are the routes of transmission of hospital hazards?	
Ingestion	75
Inhalation	77
Skin contact	72
Sexual	48
Mean knowledge score	63.21
What are usual sources of hospital accident?	
Falls	75
Electric shock	68
Fire	69
Food poisoning	65
Mean knowledge score	69.25
What factors constitute a HH in the hospital?	
Waste	76
Drugs	41
Radiation	24
Hospital environment	62
Stress of caregiving	62
Sharps	71
Mean knowledge score	56

HH=Health hazard

Table 2: Knowledge of methods of personal protection from hospital hazards

Which of the following methods can be used for personal protection from hospital hazards?	Percentage of respondent with correct knowledge
Hand gloves	82
Work cloth	68
Goggle	66
Facemask	73
Vaccination	67
Hand washing	68
Footwear	47
Personal hygiene	24
Disinfection	21
Mean knowledge score	57.33

Table 3: Perception of the respondents about hospital hazards

Perceptions	Proportion of the respondents (%)
Knowledge of hospital hazard is very important	66.7
Sleeping in the hospital is very appropriate	42.0
Blood, feces, and urine are safe to handle	24.0
Relatives can get infection from the patients in the ward	70.0
Patient care is stressful	69.7
Patient care affects work and study	75.0
Relative satisfied with hospital care	39.0

a mean knowledge scores of health hazards (HHs) being 33.3%. The main sources of information were the medical personnel 47%, media 41%, school 31%, television (21%), and radio (17%). The major known route of transmission of hospital hazards were ingestion (75%), inhalation (77%), skin contact (72%), and sexual contact (48%) [Table 1]. The sources of hospital accidents includes falls (75%), electric shocks (68%), fire (69%), and food poisoning (65%), while hospital wastes (76%), drugs (41%), radiation (24%), hospital environment (62%), stress of caregiving (62%), and sharps (71%) were known by the participants to be the factors constituting HH in the hospital environment [Table 1]. The respondents mentioned personal protective devices useful during hospital stay to include hand gloves (82%), work cloth (68%), goggle (66%), facemask (73%), vaccination (67%), hand washing (68%), footwear (47%), personal hygiene (24%), and the use of disinfectants (21%) [Table 2].

Majority of the respondents (66.7%) believed that the knowledge of the hospital hazard was very important, other believed that sleeping in the hospital was very appropriate (42%), while 24% of the respondents perceived that their sick relatives' bodily specimen such as the blood, urine, and feces were safe for the to handle, only 70% believed that they can get infection from

the ward, while another 69.7% opined that the patient care is stressful. Three-third (75%) of the respondents noted that the patient care affected their work and study. About 2/5th (39%) were satisfied with the quality of the hospital care [Table 3]. However, 90% of the respondents slept in the hospital wards to take care of their patients. They preferred to do this because their sick relatives required intensive care (60%), their homes were far from the hospital (22%), and there were not enough accommodation facilities for the sick relatives within the hospital environment (18%) [Figure 1].

The nature of hospital hazards experienced by these caregivers were aggression from other relatives (4%), stealing of their personal properties (3%), diarrhea and vomiting (5%), sexual harassment (6%), verbal aggression from health workers (6%), stress headache (9%), respiratory illness (23.9%), and febrile illness (47.8%). The median number of days spent in the hospital was 12 days during which time the respondents came in contact with their sick relatives' blood (37%), urine (67%), and sputum (14%) specimen.

The hospital procedures this group of caregivers believed would require personal protections include ward cleaning (79%), changing of bed sheets (71%), collecting blood, urine or stool samples from patients (71%), setting up

Table 4: Determinants for experiencing hospital hazards by the patients' relatives (n=100)

Risk factors	Experience a hospital hazard	Not experienced hazard	χ^2	P	OR	CI
Age of patient						
<30	24 (40)	36 (60)	1.1950	0.274	1.153	0.693-3.617
>30	18 (51.31)	19 (48.65)				
Sex						
Male	12 (54.14)	9 (42.86)	1.783	0.182	1.935	0.728-5.146
Female	31 (40.79)	45 (59.21)				
Where patient sleep						
In the ward	39 (44.32)	49 (55.68)	0.0957	0.757	0.796	0.187-3.387
Outside the ward	4 (50)	4 (50)				
Contact with blood tissue						
Yes	21	13	6.44	0.011	3.00	1.269-7.144
No	22	41				
Contacts with patient urine						
Yes	29	37	0.013	0.910	0.952	0.403-0.2.245
No	14	17				
Contacts with feces						
Yes	26	26	1.647	0.01	1.467	0.732-3.708
No	17	28				
Heard of HH	37	35	5.641	0.018	3.348	1.198-9.355
Have not heard of HH	06	19				
Length of stay in the hospital (weeks)						
1-2	26	35	0.194	0.66	0.83	
>2	17	19				
Sole caregiver						
Yes	20	13	5.369	0.02	2.72	1.15-6.514
No	23	41				

OR=Odds ratio; CI=Confidence interval; HH=Health hazard

of the intravenous line (61%), surgical procedures (69%), and drug dispensing (56%). They wanted the hospital management to provide accommodation within the hospital premises (52%), while 64.6% wanted to be educated on the hospital HHs. Some of the respondents also wanted the management to provide improved security services for them (51%), while 2/5th (19%) wanted the hospital to train the health workers on good human relations.

The knowledge of the respondents about the hospital hazard ($\chi^2 = 5.64, P = 0.018$), handling of blood specimen ($\chi^2 = 6.44, P = 0.011$), contact with patients' fecal matter ($\chi^2 = 1.647, 0.011$), and being a sole caregiver ($\chi^2 = 5.369, P = 0.02$) were observed to be significantly associated with occurrence of a hospital hazard [Table 4].

Discussion

The patient relatives in this study were relatively older homemakers, 2008 Nigeria National Demographic and Health Survey revealed that the median age at marriage in North Western Nigeria is 15.2 years.^[19] The women in this study, therefore, would have married for more than 10 years at the time of this study. These experienced homemakers were preferred by their family members to stay with the patients because of the believe that this older relative can better care for the sick persons.^[20] Previous studies in Africa had also reported the predominant female relative caregivers.^[21,22] Most of the respondents were from Kaduna state, but some came from Katsina, Zamfara, Sokoto, and from some nearby villages. Majority of the patients had more than one relative caregivers due to the extended family system in Africa.^[23,24] Previous studies have also shown that the patients recover faster and interact better with the clinicians when patient relatives are available.^[25,26]

The mean knowledge score of 33.3% in this study revealed the limited knowledge of patient relative caregivers. Previous studies have shown that this problem of lack of awareness of hospital potential hazards by patient relatives and indeed by any other persons in the hospital environment could be associated with the hospital management practices of giving inadequate information to the patients and their relatives.^[27,28] However, the Nigeria Medical Association has clearly stipulated the fundamental right of a patient to include the right to necessary information about the name and status of the health care workers in charge of a patient and the right to information on the diagnosis, treatment, and prognosis.^[29] Therefore, the inability of a patient or the relative to assess basic health information regarding their safety during the hospital stay contravenes the fundamental right of such a patient.^[29]

The handling of patient urine, feces, and blood specimen was also due to lack of adequate information on the danger of such specimen. It should be noted that more than 40% of the patients' relatives in this study thought that the bodily

specimen of their sick family member could not harm them. However, Dowell *et al.* observed that 16% family members developed Ebola hemorrhagic fever with exposure to body fluids such as feces or urine conferring additional risk with relative a risk of 3.6.^[30] Based on a limited number of studies, it is believed that human-to-human transmission of the Ebola disease occurs only by the direct contact with blood or bodily fluids from an infected person who is showing signs of infection or by contact with objects recently contaminated by an actively ill infected person.^[31,32] Similarly, an infectious disease such as the cytomegalovirus infection is spread when urine is transferred from the soiled hands or objects to the mouth while gastroenteritis, hookworm infection, cholera, hepatitis A, *Campylobacter*, cryptosporidiosis, giardiasis, hand, foot and mouth disease, viral meningitis, *Rotavirus*, *Salmonella*, *Shigella*, and yersiniosis infections are transmitted via the feco-oral-route.^[33] Bloodborne infections such as the HIV, hepatitis B, cytomegalovirus, and other viral hemorrhagic fever such as Lassa fever are well-documented in literatures.^[34] Therefore, it is not right for the untrained patients' relatives to handle these specimens considering their potential for HHs. The Nigeria National Health Bill recently accorded the presidential assent, includes several patients and caregiver rights, including rights to emergency care, information about treatment, and right to have information about a patient. It is hoped that the implementation of this bill will address the problem of inadequate information about the patient management in Nigeria hospital.^[35]

The patient bill of right stipulated also that the patient has the right to be informed about the hospital policies and practices that relate to patient care, treatment, and responsibilities. The sick person or their significant others also have the right to be informed for the available resources for resolving disputes, grievances conflicts such as the ethic committee, patient representatives, or other mechanisms available within the hospital. The collaborative nature of the health care requires that the patient families or surrogate participate in their care, and they should be accorded necessary information to perform their caregiving role effectively and without harm to the patient and themselves.^[36]

Majority (34%) of the respondents in this study were not formally educated. It has been noted that higher level of education promotes access to information and better understanding of the modes of transmission, possible risk factors, and methods of disease prevention.^[37]

The incidence of occurrence of hospital hazard among patient relatives was 43%. The major HHs reported in this study were mainly infectious diseases such as febrile illness (47.8%), respiratory illness (23.9%), stress headache (9%), and diarrhea and vomiting (5%). This observation is comparable to an aggregate of nosocomial

infection rate of 26.8% observed by Ding *et al.* in China.^[38] The complaint of headache may also be due to stress involved in patient care. Okoye and Asa in Nigeria had stated in their studies some of the stressful consequences of caregiving.^[39]

Verbal aggression from the health care workers, sexual harassment of patient relatives, patient aggression, and undue handling of patient specimen constitute major ethical issues in this study.^[40] Aggression either from the health care worker, the patient or his relative can disrupt cordial relationship with an attendant negative effect on the patients on admission.^[39] Public commentators have observed that the impact of the negative attitude to work by health care providers in public and private hospitals in Nigeria is particularly worrisome. Years of the poor attitudinal problem, particularly in the public sector, has further endangered lives of many patients negating the principle of non-maleficence.^[41]

Furthermore, negative attitude of the health care providers has been reported in previous studies to affect the uptake of essential hospital services.^[42,43] Studies have reported increasing home deliveries in African countries due to poor attitude of the health care providers.^[44] Most pregnant women lack confidence in some health care professionals because they considered them undertrained, incompetent, and inexperienced.^[45] Some women have described health providers as verbally and physically abusive, rude, bossy, disrespectful, insulting, easily angered, having poor attitudes, and lacking compassion.^[46-48]

This kind of attitude constitutes malpractice described by the Nigeria code of medical ethics under rule 33. Verbal abuse and physical assaults on patients that the health worker owes a duty of care to is by no means a practice, that is, without medical ethics.^[49] The Medical and Dental Council of Nigeria's Code of Medical Ethics requires medical doctors, among other things, to give due respect and honor to patients.^[49] Desmarais *et al.* reported that the patient can also be aggressive to the health care provider.^[50,51] Therefore, it is very pertinent for the hospital management to emphasize the need for courtesy from both parties.

The incidence of sexual harassment in this study was 13.3%. Sexual gratification is a major issue in many organizations setting although cases of sexual misconducts and rape are highly under reported.^[51] The reported cases of rape and other form of sexual harassment are on the increase in Nigeria.^[52] These cases of sexual misconduct need to be reported to the hospital management for appropriate disciplinary action since the law of the federal republic of Nigeria has stipulated strict sanctions against offenders.^[53]

We also observed a significant association between the occurrence of hospital hazard and patients' relatives' contact with blood ($\chi^2 = 6.44, P = 0.011$, odds ratio [OR] = 3), feces ($\chi^2 = 1.65, P = 0.011$, OR = 1.47), prior knowledge of the

hospital hazard ($\chi^2 = 5.64, P = 0.018$, OR = 3.35), and when there was a sole patient's relative caregiver ($\chi^2 = 5.37, P = 0.02$, OR = 2.72). Handling of patient urine, length of stay in the hospital, sex of the relatives, and sleeping in the ward were not significantly associated with experiencing hospital hazards ($P > 0.05$) [Table 4]. There is a need to make sure that in every hospital in the subregion there is a high level of personal hygiene and that universal precautions are maintained by all health care providers, patients, and their relatives and other persons within the hospital environment to protect them from nosocomial infections and other potential hospital hazards, especially now that the highly infectious disease with high case fatality such as the Ebola hemorrhagic virus disease is ravaging the west African coast.^[54-56]

Conclusion and Recommendation

The prevalence of hospital hazard among the respondent is high in this study 33.3%. This is due to poor knowledge and wrong perception of potential hospital hazards by the respondents. Furthermore, abusive insults from health workers, sexual harassment, and undue handling of patients' specimen constitute major ethical challenges in this setting. The patient relatives need basic health education while in a hospital environment. The hospital should have a manual specifying the roles and responsibilities of patients and their relatives. There should be a functional disciplinary committee to enforce ethical practices in the hospital. The health care workers also need to continue hospital ethics education. The management should provide more accommodation facilities for patient relatives within the hospital.

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Conflicts of interest

There are no conflicts of interest.

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Appendixes

Appendix 1

Section A: Sociodemographic

1. Age
2. Religion:
 1. Islam [] 2. Christianity []
 3. Others (specify)
3. Sex
 1. Male [] 2. Female []
4. Ethnicity
 1. Hausa [] 2. Igbo [] 3. Yoruba [] 4. Others
5. Marital status:
 1. Married [] 2. Single [] Separated [] 4. Divorced [] 5. Widowed []
6. Occupation
7. Address.....
8. The Patient is your:
 1. Spouse [] 2. Parent [] 3. Sibling [] 4. Child []
 5. Grandchild [] 6. Grand parent [] 7. Cousin []
 8. Friend [] 9. Others (specify) _____
9. What is your highest educational level?
 1. Primary [] 2. Secondary [] 3. Tertiary [] 4. None []
10. For how long has the patient been on admission? _____
11. Do you sleep in the hospital to provide care for the patients?
 1. Yes [] 2. No []
12. Are you the only caregiver who sleeps in the hospital to care for the patient?
 1. Yes [] 2. No []
13. If no, how many other caregivers do the same? _____

Section B: Knowledge

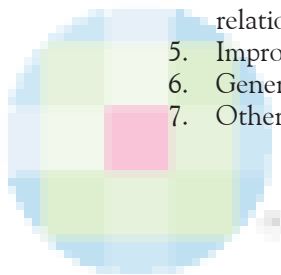
14. Have you heard of hospital hazards?
 1. Yes [] 2. No []
15. What is the source of your information?
 1. Tv [] 2. Radio [] 3. Newspaper [] 4. Posters []
 5. Internet [] 6. Others (specify) _____
16. Which of the following are health hazards?
 1. Waste []
 2. Drugs []
 3. Radiation []
 4. Hospital environment []
 5. Caregiving []
 6. Sharps (e.g., needles, blades) []
17. In which of the following does the health worker need protection?
 1. Hospital cleaning []
 2. Changing bed sheets []
 3. Collecting stool feces or blood samples []
 4. Setting intravenous lines []

5. Transfusing blood []
6. Dressing wounds []
7. Surgery []
8. administering drugs []
18. Which of the following are forms of protection from hospital hazards?
 1. Work clothes []
 2. Hand gloves []
 3. Goggles []
 4. Face mask []
 5. Vaccination []
 6. Hand washing []
 7. Others (specify): _____
19. The following are routes by which infection can be transmitted
 1. Ingestion []
 2. Inhalation []
 3. Skin contact []
 4. Others (specify): _____
20. Which of the following can occur in the hospital setting?
 1. i. Falls []
 2. ii. electric shock []
 3. iii. Fires []
 4. iv. food poisoning []
 5. v. others (specify): _____

Section C: Perception

21. Can you get an infection from patients in the wards?
 1. Strongly agree []
 2. Agree []
 3. Don't know []
 4. Disagree []
 5. Strongly disagree []
22. Tick the materials you have come in contact with:
 1. Blood []
 2. Feces []
 3. Urine []
 4. Other fluids (specify) _____
23. Handling these materials is safe:
 1. Strongly agree []
 2. Agree []
 3. Don't know []
 4. Disagree []
 5. Strongly disagree []
24. Where do you sleep?
 1. In the ward []
 2. Outside the ward []
 3. Others (specify) _____
25. Is the place you sleep appropriate for a person taking care of a patient?
 1. Strongly agree []
 2. Agree []
 3. Don't know []

4. Disagree []
5. Strongly disagree []
26. Why do you sleep in the hospital?
 1. My house is far from the hospital []
 2. There is no accommodation for the patient relatives []
 3. The patient requires intense care []
 4. Others (specify) _____
27. Do you enjoy caring for the patient?
 1. Strongly agree []
 2. Agree []
 3. Don't know []
 4. Disagree []
 5. Strongly disagree []
28. Has patient care affected your work or studies?
 1. Strongly agree []
 2. Agree []
 3. Don't know []
 4. Disagree []
 5. Strongly disagree []
29. Is caregiving stressful?
 1. Strongly agree []
 2. Agree []
 3. Don't know []
 4. Disagree []
 5. Strongly disagree []
30. knowledge of hospital hazards is:
 1. Very important []
 2. Sometimes important []
 3. Not important []
31. Have you experienced any hazard since you have been with the patient in the hospital?
 1. Yes []
 2. No []
32. If yes, what type?
 1. Febrile illness []
 2. Respiratory illness []
 3. Diarrhea and vomiting []
 4. Sexual harassment []
 5. Stealing []
 6. Insults from medical personnel []
 7. Injuries []
 8. Depression/emotional problems []
 9. Aggression from other relatives []
 10. Others (specify): _____
32. What advice can you give to hospital management to reduce these hospital hazards?
 1. Provide adequate accommodation for patient relatives []
 2. Patient relative education on hospital hazards []
 3. Improve the security services []
 4. Training of medical personnel on good human relations []
 5. Improve the clients' awareness of SERVICOM []
 6. General improvement of patient relative welfare []
 7. Others (please specify) _____



Appendix 2: Hausa Translation of the Questionnaire

Fahimta Da Gane Hatsarurrukan Da Masu Jinya Za Su Iya Fuskantar A Manyan Asibitoci A Arewa Maso Yammancin Nijeriya.

Appendix 1: Form Na Yarda

Sunana Dakta Oyefabi Adegboyega. Ina gudanar da bincikemaisuna: Fahimta da gane hatsarurrukan damasu jinyazasui yafuskantar a manyan asibitocin Arewa maso yammancin Nijeriya.

Ni da abokan aikin mu so mu yi ma ka/kitambayoyi game da wannan Magana.

Amsoshin da zaka/zakibamu za suzama a sirrance, don zamuyamfani da su wajengudanar da bincike. Sunanka/kibazaibayyanaba a takardun bincike da zamubaka/ki. Bada amsoshin tambayoyin bazai wuce minti ashirin (20) ba. Zamuyimaka/makitambayoyi game da kanka/kanki, abubuwan da ka/kin sani game da hatsarin asibiti da kuma in ka/kin taba fuskantar hatsarurrukan asibiti. Zamuyimaraba da amsoshinka/kinahakika.

Badagudumawarka/kicikin wannan bincike ba dole bane, zaka/zakii yadda ka badagudumawarka/kiko akasinhaka.

Zamuyimaraba da badagudumawarka/ki a wannan bincike. Zamubuka cesa hannun ka/ki a wajen da aka bada don haka.

Yanzu da aka yimanibayaninabindabincikenyakunsana fahimciabindab incikeyakunsa. Na yaddakumanaamincezanbadagudunmawa ta, a cikinwannanbinciken.

.....
Sahannunka/ki da kwananwata

.....
Sa hannunmaibincike da kwannanwata

.....
Sahannunshaida da kwananwata

Appendix 3: Informed Consent Form

My name is Dr. Oyefabi Adegboyega. I am conducting a research titled: Ethical Issues In Knowledge, Perceptions, And Exposure To Hospital Hazards By Patient Relatives In A Tertiary Institution In North Western Nigeria.

My colleagues and I will like to conduct interviews with you on this topic. The answer you gave us shall be kept confidential and shall only be used for the purpose of the research. Your name will not appear on the questionnaire that one of us will administer to you so that it will be difficult for anyone to link you with the result of the study. The interview will last approximately 20 minutes. We will be asking you questions about yourself, what you know about hospital hazards, and also if you had experienced a hospital hazard. We will appreciate your honest answer.

Your participation in this study is voluntary, you may decide to participate in this study or decline. You are free to refuse to take part in this study. You also have the right to withdraw at any stage during the course of the study. We will greatly appreciate your help in responding to these questions, we will want to request that you append your signature or thumbprint in the section provided below.

Consent:

Now, that the research has been explained to me and I fully understand the content of the study process, I hereby indicate my willingness to participate in this research.

.....
Signature/thumbprint of participant/Date

.....
Signature of thumbprint interviewer/Date

.....
Signature/thumbprint of the witness/Date