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LETTER FROM THE EDITOR

Living in the post-COVID era with an evolving series of variants and a whole new way of viewing life, work, health and safety has come with new sets of challenges. It has redefined work processes and has emphasized infection prevention and control. It has also repositioned the scientific world for relevance in the quest for viable solutions to the unending challenges posed by new and emerging diseases worldwide.

The Jos Journal of Medicine (JJM) welcomes you to this fifteenth volume with a lot of excitement as we have ensured a wide range of carefully set out research findings as expected. A careful perusal would add a great deal of enlightenment to our teeming readers, noting that your comments and queries are always welcome.

The tireless commitment of JJM's Editorial Team requires special appreciation as our dear editorial advisors commendably invest their time and expertise to ensure quality standards for each submitted article. The publication committee makes the process of production seamless, ensuring that timelines are met and that reviewed articles are returned promptly. Thank you team! Kudos goes to my Deputy Editor, DrIfiok Umana who though saddled with other assignments availed himself to ensure the progress of our beloved journal.

We also duly appreciate the leadership of the Association of Resident Doctors (ARD) Jos University Teaching Hospital (JUTH) our host without whom what we do may never be sustained or continued. President NaponNalda and his formidable team of executives insisted and secured our financial rights as an editorial unit by selflessly availing themselves until our challenges were sorted out.

Finally, we thank our esteemed authors and you, our readers, for your high regard of and interest in our journal which remains indexed in the African Journal Online (AJOL). Articles and other correspondences can be sent to us via the email; editorjjm@gmail.com.

Thank you as always for choosing the Jos Journal of Medicine, please enjoy the read!

Dr. Udoh, Phillips. A
+234 803 681 0771
phillipsudoh@gmail.com

CONTENT

GENDER TREND IN RESIDENCY TRAINING IN NIGERIA

Dabota Yvonne Buowari
Department of Accident and Emergency,
University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State, Nigeria.
08037324401
dabotabuowari@yahoo.com

ABSTRACT
There is a global trend in the number of women entering medical school and becoming doctors on graduation. This is a review article on gender and residency training in Nigeria. The keywords gender and medicine, gender and residency training was used to search for literature relevant to the topic. More women doctors are undergoing residency and training in previously male-dominated medical specialties.

Introduction

Gender and sex tend to be linked but they are distinct concepts, sex is the biological difference and constitution in their reproductive organs that differentiate a male from a female while gender is the socially constructed set of roles and responsibilities associated with being a woman or a man created by families, societies, religion and culture.[1,2] Gender is also important in medicine and the work of the physician including junior doctors as the society and the Nigerian culture has some unwritten roles for men and women which also extends to the workplace.

The clinical medical specialist training program is known as medical resident training.[3] Residency training for doctors started over 30 years ago.[4] Generally, worldwide there is an increase in the number of women pursuing careers in medicine and medical specialties as was previously seen in the past.[5-9] In some developed countries, women now outnumber men in medical schools.[10] Since in recent times more women are becoming medical doctors and dentists, there remains a large gender difference in the choices that are made concerning their occupation which includes pursuing a residency in various medical specialties and subspecialties and other courses in postgraduate medicine.[10]

Traditionally, women have assumed the responsibility for raising families and maintaining the household.[8] This affects their choice of career and residency programmes which is tedious and involves taking call duty, attending refresher and update courses, sometimes undertaking clinical rotations in other hospitals outside the town, city and even state of abode, going for professional examinations and attending conferences. The gender roles defined by Nigerian society may affect the choice of medical specialty.

In Nigeria, medicine and dentistry are male-dominated professions that are why most patients, clients and their relatives generally refer to any woman working in the hospital as a nurse even though she is a doctor and any man working in the hospital as a doctor even if he is a nurse or health assistant. Recently this trend is changing due to modernization and civilization as more females are receiving formal education and are also encouraged to study medicine and dentistry. This has also affected the gender trend in postgraduate medical training including residency.

There is scarce data on the link and relationship between gender and residency training in Nigeria. In residency training, there are few females in some specialties like the surgical specialties and subspecialties but this is gradually changing as women doctors are now penetrating the highly dominated male medical specialties such as Orthopaedics, general surgery, burns and reconstructive surgery, obstetrics and gynaecology and urology. Generally in most Nigerian residency training centres, females have dominated some specialties such as paediatrics, anaesthesia, internal

medicine, ophthalmology, radiology, family medicine and community medicine. This is similar to the United Kingdom, where the highest proportion of female registrars is found in the specialties of public health medicine and paediatrics.[10] This reflects that women like to specialize more in fields of medicine that express the natural caring and nurturing nature of women as related to preventing diseases, helping and taking care of children.[5,11]Some training centres have recorded an increase in women doctors training to become obstetricians and gynaecologistsand in some countries, this speciality is dominated by women.[9,10,12]In some countries, while women now represent the majority in obstetrics and gynaecology, there continues to be a disproportionate number of men in the predominately surgical postgraduate fellowships. In such countries, though both general surgery and obstetrics encompass many of the same challenging aspects of work-life balance, it is interesting that the latter has emerged as largely female.[9]The urology specialty has few female residents, this may be because most of the patients and clients in the Nigerian environment are mostly men.[5]Traditionally, surgery was seen as a male-dominated specialty in medicine and there were few Nigerian women surgeons in the past. Surgery remains an unpopular career choice for Nigerian women doctors, this may be due to the understanding of the surgical job and nature of the work involved in being a surgeon.[13,14]Presently, there is a noticeable growing interest and entry of females into the technically male-dominated surgical subspecialties of orthopaedic surgery, cardiothoracic surgery, neurosurgery and urology.

Training of specialists in Nigeria was cheaper with the downturn of the Nigerian economy.[15]In a study conducted in the United Kingdom, women rated 'wanted a career that fits their domestic situation' as the reason for the choice of medical specialty hence they preferred non-surgical specialties or specialties with flexible hours of work.[16] Current statistics on medical school matriculation reported an increasing number of students been admitted to study medicine.[9] In a study conducted in 2010, the number of male residents far outnumbered that of the female residents which is probably a reflection of the graduation pattern in medical schools.[15] Lack of female mentorship and role models during medical school, lifestyle choice and conflicts with family plans have been identified in some studies as the reason for the paucity of women in some surgical specialties and subspecialties.[9]

A study conducted in South Africa revealed that the gender of the mentor affected the choice of the specialty and also impacted positively on the quality of the training.[17]This shows the importance of mentorship to be provided by senior colleagues of both genders both in medical school and residency as it will help to strike a balance in the gender disparity noticed in some departments in residency training. The future role of gender in medical work continues to generate questions as the cultural and social roles of women at work

In recent times, there is an increasing number of women pursuing a residency in the different medical specialties and subspecialties, this may be due to the increasing number of specialist training centres in Nigeria. Females have a concern about maintaining a work-life balance to accommodate family responsibilities.[17] A study conducted among women physicians in Saudi Arabia reported that the choice of medical specialty was determined by their family responsibilities.[6]Findings from a Canadian study reported that women doctors preferred medical specialties with more flexible scheduling, the option of job-sharing and replacement staff when they are on maternity leave.[8]

Conclusion

Despite the traditional role of the office of a woman in Nigeria is in the kitchen, women are undergoing specialist medical training in male-dominated surgical specialties. Women doctors moved by the compassionate virtue and trait women are borne with to populate the specialty of Paediatrics, anaesthesia, neonatology, paediatric anaesthesia, paediatric ophthalmology and child health dentistry.

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PEPTIC ULCER DISEASE AMONG PATIENTS WITH LIVER CIRRHOSIS IN JUTH

Authors : Duguru MJ; David NP; Davwar MP; Omaiye PO; Zawaya KP; Dashan D; Obekpa S; MacHenry S; Makpu JD; Okwute A; Ogwuche J; Okeke EN; Uduma N; Olonta A.
Department of Medicine, Jos University Teaching Hospital

Introduction

Peptic ulcer is a break in the lining of the stomach or the duodenum, with a diameter of at least 0.5 cm penetrating through the muscularis mucosa.[1]Peptic ulcer disease remains an important cause of morbidity and increased health care costs.[2] The prevalence rate of peptic ulcer disease in the general population in different regions of the world as reported in previous studies include; 1.5 – 3.0% in the USA, 2.7% in Italy, 18.3% in Nairobi, Kenya, 24.6% in Accra, Ghana, 11.6% in Ibadan, Nigeria and 9.5% in northern Nigeria.[3]

Previous studies have shown high prevalence of peptic ulcer disease in patients with cirrhosis and such patients also have a significantly higher risk of peptic ulcer bleeding compared with the general population.[4] However, the commonest cause of upper GI bleeding in patients with liver cirrhosis remain oesophageal varices which account for 60-65% of UGI bleeding in cirrhotic patients.[5]

Several literatures have reported the prevalence rates of PUD in cirrhotic patients to range between 5-32%.[6]The presence of peptic ulcer in cirrhotic patients may be associated with some ulcerogenic factors that are specific to patients with liver cirrhosis. Among the proposed factors are hypergastrinemia, decreased gastric prostaglandin E2 levels, and the observed portosystemic shunting in liver cirrhosis, which may prevent ulcerogenic factors from being cleared by the liver.[7]

This studyreviewed the prevalence of peptic ulcers among patients with liver cirrhosis who have had UGI bleeding and those who have never had upper GI bleeding but were referred to have upper GI endoscopy for variceal surveillance.

Methodology

This was a retrospective study of 112 adult patients aged 18 and above with liver cirrhosis, irrespective of etiology, who were referred for upper GI endoscopy on account of upper gastrointestinal bleeding (UGIB) and for variceal surveillance to the endoscopy unit of Jos University Teaching Hospital (JUTH) between October 2018 and December 2019.

Results

One hundred and twelve (112) patients were reviewed, 90 (80.36%) were males and 22 (19.64%) females. The mean age of study population is 46.04 (+/- 17.70) years. 37 (33.01%) of the liver cirrhosis patients had peptic ulcer disease, 101 (90.18%) had oesophageal varices and 59 (52.68%) Portal hypertensive gastropathy (PG).

Sixty four (57.10%) were referred on account of upper gastrointestinal bleeding (UGIB) and 48 (42.90%) for variceal surveillance (VS).

Peptic ulcer disease (PUD) was found in 10 (20.83%) of the 48 referred for variceal surveillance and 27 (42.19%) of the 64 referred on account of UGIB.

Table 1: Characteristics of Study Population

	Frequency	Percentage (%)
Gender		
Male	90	80.36
Female	22	19.64
Total	112	100.00
Age (years)		
20-29	10	8.93
30-39	23	20.54
40-49	41	36.61
50-59	22	19.64
60-69	12	10.71
70-79	4	3.57
Mean age 46.04 SD 11.70		
Total	112	100.00
Peptic ulcer disease	37	33.01
Oesophageal varices	101	90.18
Portal gastropathy	59	52.68
Indications for endoscopy		
Variceal surveillance	48	42.90
UGIB*	64	57.10
Total	112	100

•Upper gastrointestinal bleeding.

Table 2: Upper GIT endoscopic findings based on indication

Indication	DU	GU	PUD	Varices	PG	PUD + Varices	PUD +PG	PG + Varices	PUD+PG + Varices
VS	3	8	10	42	22	9	5	16	4
UGIB	7	25	27	59	37	23	13	32	9
Total	10	33	37	101	59	32	18	48	13

UGIB- upper gastro-intestinal bleeding; VS - Variceal bleeding; PUD – peptic ulcer disease; DU- duodenal ulcer; PG – portal hypertensive gastropathy; GU - Gastric ulcer.

Discussion

The prevalence rate of peptic ulcer in cirrhotic patients in this study was 33.01%. This figure is higher than the prevalence rates in the general population.[3]

It is also higher than the combined prevalence rate of gastric and duodenal ulcers (4.9% and 17.3% respectively) observed in a previous study of dyspeptic patients referred for upper GI endoscopy at Jos University Teaching Hospital.[9] This high prevalence was due to some ulcerogenic factors that are specific to liver cirrhotic patients as earlier mentioned.

It is however lower than peptic ulcer rates in a similar study in Callao-Peru where 52% of patients with cirrhosis had PUD.[6] The reason for the higher rate of peptic ulcer in that study may be due to the smaller sample size in that study population and the fact that the study participants were hospitalized sick patients.

Peptic ulcer has been identified as the most common cause of Non-Variceal UGI bleeding in patients with liver cirrhosis accounting for up to 50% of cases.[10] While it was difficult to state from our study the exact number of patients who bled solely from gastric/duodenal ulcers, PUD was detected in 42.19% of patients who had UGI bleeding. This is over twice the number of patients with PUD who had UGI endoscopy for surveillance (without prior history of upper gastrointestinal bleeding).

Liver cirrhosis doesn't only predispose to development of PUD but also increase likelihood of bleeding from these ulcers. This increased risk of bleeding in cirrhotic patients is multifactorial which include coagulation dysfunction and thrombocytopenia that is frequently seen in these patients.[11]

Conclusion

Peptic ulcer disease is an important cause of UGI bleeding in patients with liver cirrhosis.Although the prevalence of variceal bleeding in cirrhotic patients is high, peptic ulcer disease remain an important cause of upper gastrointestinal bleeding in this group of patients. It is important for the physician to promote avoidance of PUD risk factors and for early diagnosis and prompt treatment where present. There is need for further research in the assessment of efficacy of standard of care of PUD in patients with liver cirrhosis.

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AMYAND'S HERNIA IN AN ADULT MALE NIGERIAN: A CASE REPORT AMYAND'S HERNIA, ADULT MALE

Adejumo A.A (FMCS, FACS) - Dept. of Surgery, Federal Medical Centre, Keffi.
Akims S.M (FWACS) - Dept. of Surgery, Federal Medical Centre, Keffi.
Itoje E (MWACS) – Dept. of Surgery, Federal Medical Centre, Keffi
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Corresponding author: Dr A.A ADEJUMO,
P.O.Box 324, Gwagwalada. FCT-Abuja
Email: dradejumoaa@gmail.com
Phone: +234 7037700349

ABSTRACT

Background: Amyand's hernia is a rare variant of inguinal hernia in which the sac content is the appendix. It is usually an intra-operative diagnosis. This pathology has been reported to be more common in children but our index patient is an elderly man.

Case presentation: An elderly man presented with clinical features consisted with strangulated recurrent right inguinal hernia. At surgery, he was found to have an inflamed appendix as the content of the hernia sac. He was offered appendicectomy and hernioplasty.

Conclusion: The surgeon should be aware of this pathology and the possibility of meeting the unexpected findings at surgery.

Keywords: Amyand's hernia, Elderly patient, Male, Nigeria

Introduction

By definition, a hernia occurs when an organ or a portion of an organ protrudes through a defect within the walls of its containing cavity.[1] By this, various types of hernia have been described based on the content of the sac. Amyand's hernia is an eponymous terminology used to describe a clinical condition in which the content of the hernia sac is the vermiform appendix.[2] Such an appendix may be inflamed or not and in either of the scenarios do present with groin pains and swelling just like any other form of groin hernias. The diagnosis of this is usually made intra-operatively after opening the hernia sac to inspect the content. In this study, we report a case of Amyand's hernia in which the appendix was inflamed and presented with features in keeping with obstructed inguinoscrotal hernia in an elderly patient.

Case presentation

I.I is a 75yr old gold miner who presented with recurrent right groin swelling of 2 years duration and sudden onset of colicky abdominal pain, three hours prior to presentation. The groin swelling which was initially reducible became irreducible few hours before presentation. He had right inguinal herniorrhaphy about 7 years prior to this current presentation. He does not take alcohol but has been smoking a pack of cigarettes per day for the past 5years.

Clinical examination reveals an elderly man,

anxious, in painful distress, not pale, anicteric, afebrile, no pedal oedema, not dehydrated.Vital signs recorded: PR: 92b/min, RR: 18cycles/min, BP: 130/70mmHg. Right groin examination revealed an irreducible recurrent complete inguinal hernia. Digital rectal examination revealed a mildly enlarged prostate with benign features. No rectal masses palpable.

A clinical diagnosis of obstructed recurrent right inguinoscrotal hernia was made. He was admitted and optimized, counseled for surgery (hernioplasty) with an intra-operative finding of an 18cm long, inflammed appendix in the hernia sac. He subsequently had appendicectomy through the hernia incision and also had posterior inguinal wall repaired accordingly. He did well after surgery and was discharged on POD 5 to be seen at the follow up clinic.

Yellow arrow-Inflammed appendix
Green arrow- Hernia sac
Purple arrow- Root of penile shaft

Discussion

Groin hernia could be inguinal or femoral in nature and the clinical presentation of these categories of hernias depends on the underlying pathology and content of the hernia sac. Simple or strangulated obstruction could ensue if there is associated vascular compromise however, if unabated, this may proceed to gangrene and perforation. Amyand's variant of inguinal hernia is a rare surgical pathology in the adult population. Literature search on this pathology in adults in Nigeria is scanty as majority of them are encountered in the children.

Epidemiologically, the global incidence of Amyand's hernia is approximately 1.2% and this variant of hernia has been reported in patients between the neonatal period to the eight decade of life.[3] However, a large number has been reported in the paediatric population due to the persistence of processus vaginalis which permits the elongation and eventual free sliding of the appendix into the patent processus vaginalis.[4,5]With respect to sex predilection, Amyand's hernia has been reported to occur more in males than females and observed to be present more on the right side than the left.[6]

Amyand's hernia historically was named after Claudius Amyand (1735) after successfully removing an appendix (with an impacted pin within the appendiceal lumen) through the hernia sac from an 11 year old boy who presented with right inguinal hernia. [7]The fate of the appendix in Amyand's hernia is not different from that of an appendix that is within the peritoneal cavity

(inflammation,gangrene, rupture).[8] The appendix in our index patient was inflamed with clinical presentation of severe colicky pains and low grade fever resembling the pathology of strangulated inguinal hernia necessitating optimization and need for surgery.

The diagnosis of hernia is clinical and more so the diagnosis of Amyand's hernia is usually an incidental intra-operative event.[9,10] Such a patient will earn appendicectomy that will be carried out in usual manner after which ligation excision of the hernia sac (herniotomy) will be carried and posterior inguinal wall repair will be effected.This was the case in our index patient in which the hernia sac content was found to be an appendix and he had appendicectomy offered with herniotomy and repair of the weakened posterior inguinal wall. A big lesson to be learnt here is the fact that the surgeon should always endeavor to inspect the content of the hernia sac before excision as this may contain intra-peritoneal visceral like the appendix and such may also have attendant sliding hernia component.

In this index patient, who is elderly and presented with a recurrent inguinal hernia that ended up being an Amyand's variant (with just inflammation of the appendix without rupture, gangrene or abscess), the posterior inguinal wall repaired.Though opinions differ as to the method of choice for posterior wall repair in Amyand's hernia,Losanoff *et al* in their categorization have highlighted and stratified the treatment options as shown below.[11,12]

Type I- Normal appendix, do reduction or appendicectomy + mesh hernioplasty

Type II – Acute appendicitis localized in hernia sac, appendicectomy + mesh hernioplasty

Type III- Acute appendicitis with peritonitis; appendicectomy via laparortomy; hernioplasty not advisable

Type IV – Acute appendicitis with other abnormal pathology; hernioplasty contraindicated.

Conclusion

Amyand's hernia though a rare variant of inguinal hernia can present to the surgeon like every other hernia. The surgeon should therefore arm himself with requisite knowledge in the management of such.

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PREVALENCE AND MAGNITUDE OF PRESBYOPIA IN A COSMOPOLITAN NIGERIAN POPULATION

Ugochukwu A Eze[1], Thelma I Ndife[2], Murtala M Umar[3], Shahir U Bello[4], Chimezie G Obi-Mgbam[5], Sunday S Bako[6], Olufemi E Babalola[7]

Clinical Services Department, Katsina Eye Centre, Katsina, Nigeria
Cataract and Glaucoma Department, National Eye Centre, Kaduna, Nigeria
Vitreoretinal Department, National Eye Centre, Kaduna Nigeria
Department of Ophthalmology Abubakar Tafawa Balewa University Teaching Hospital, Bauchi, Bauchi State, Nigeria
General Ophthalmology Department, National Eye Centre, Kaduna, Nigeria
Department of Mathematical Sciences, Kaduna State University, Kaduna, Nigeria
Department of Ophthalmological Surgery, Bingham University, New Karu, Nassarawa State and Rachel Eye Centre, Abuja, Nigeria

Correspondence: Dr Ugochukwu A Eze: email- ugorexeze@gmail.com, ugochukwu.eze@npmcn.edu.ng

ABSTRACT

Aim - To determine the prevalence and magnitude of presbyopia in Chikun LGA of Kaduna State

Materials and methods: A population-based quantitative cross-sectional study was conducted from November 2017 to March 2018 at Chikun LGA, Kaduna State, Nigeria. Study involved 1,047 persons aged 35 years and above were examined in 63 clusters using multistage random sampling with probability proportional to size. All participants had distance and near visual acuity assessment, anterior and posterior segment examinations and near refraction. Any participant who could not read at N8 at 40cm was adjudged presbyopic. Data was collected in a standard questionnaire, transferred to Statistical Software for social science version 20 (SPSS Chicago Illinois) and analyzed, summarized in frequency and contingency tables, with a confidence interval and P-values significant at the $P< 0.05$ level using chi-square (X^2) test.

Results: There was 96.6% response rate (1047 out of enumerated 1084 were examined). The mean age of participants was 48.2 years ± 8.194 SD (age range of 35 – 87 years). The number of females examined was significantly higher than males ($p= 0.041$). The prevalence of presbyopia was 85.6% (95% Confidence Interval: 85.58% - 85.62 %) which translates to a magnitude of 81,638. The prevalence of presbyopia increased with age. There is a significant prevalence of presbyopia in females ($P = 0.041$) and higher literacy levels (0.004).

Conclusion: There was a high prevalence and magnitude of presbyopia in Chikun LGA which was associated with age, female gender and literacy level.

Keywords: Prevalence; Magnitude, Presbyopia; Cosmopolitan, Nigerian.

Introduction

Presbyopia is an extremely common age related physiological condition in which there is progressive inability to focus at near distance.[1] It is mainly due to sclerosis of the fibres of the crystalline lens and changes in its capsule which causes steepening of its surface with contraction of the ciliary muscle. It is a visual condition which becomes apparent especially in middle age and in which loss of elasticity of the lens of the eye causes defective accommodation and inability to focus sharply for near vision.

Prior to 2010, there was paucity of data and interest in the subject matter seemed low but the trend has changed as awareness is high and the dynamics of the global data generated from various studies has generated wide spread interest.[2] A systematic review, meta-analysis and modeling by Frickle et al estimated that from 2000 – 2015,1.4billion and 1.8billion people which respectively represents 23% and 25%of the world's population suffered from presbyopia.[5]A rise to 2.1billion by 2030,momentary peak and decline to 1.9billion by 2050.

Population based studies in Northern Nigeria reported a prevalence of 30.4%,42.4%, 53.5%. While in the south, studies reported of prevalence 63.4% , 75.0% , and 81.3%). Surveys in Ghana, Kenya[3], Tanzania[3], Brazil, India, The Philippines and China reported a prevalence of 68.1%, 85.4%, 87.8%, 61.7%, 89.2%, 54.7%, 69.9%, 76.4% and 67.3% respectively.

Age is the single most important risk factor for development of presbyopia. Onset of presbyopia is variable but symptoms usually manifest between ages 35 – 40 years (usually earlier in women) but may occur earlier or later depending on the individual's refractive state, visual needs and depth of focus.Azonobi reported the earliest and mean age of onset to be 34 and 45.6 years respectively. Previous studies in Nigeria, have reported that presbyopia occur at age 32. Early onset of presbyopia has been linked to feminine gender, living near the equator with exposure to higher ambient temperature and ultraviolet radiation, Hypermetropia and ocular conditions which damage and/or cause a change to the lens, zonules and ciliary muscles such as trauma, intraocular surgery and some systemic diseases mellitus, myasthenia gravis, anaemia.[7] It was also reported that 68% of smokers develop presbyopia before age of 40years.

This paper seeks to highlight the prevalence and magnitude of presbyopia in a cosmopolitan Nigerian population. Data can be used for advocacy, policy formulation and better planning for presbyopic services in an integrated health care system.

Materials and Methods

Study Design

The study was a population-based cross-sectional quantitative survey of people 35 years and above conducted from November 2017 to March 2018 in Chikun LGA of Kaduna State, Nigeria

Study Area/Population

Chikun is one of the 23 Local Government Areas in Kaduna State, North-west Nigeria. Chikun LGA is located within the savannah belt of Nigeria and straddles rural, semi-urban and urban populations (which forms part of present day Kaduna metropolis). It lies between latitude 10^{o}37-N and longitude 7^{o}15-E. It plays host to virtually all ethnic groups in Nigeria and has a population of 484,376 with approximately 20% aged 35years and above. It is made up of 12 administrative wards with 165 settlements. Inhabitants are farmers, traders, artisans, skilled craftsmen, civil servants and corporate career men and women.

Ethical Consideration

Ethical approval was obtained from the Human Research and Ethics Committee, National Eye Centre, Kaduna. Permission was also sought from the Kaduna State Ministry of Health and Human Services, Chikun Local Government Council and its traditional rulers. .

Sample Size Determination

The minimum sample size of 1084 was calculated using Leslie-Kish statistical formula,

Sample size (n) = Z^2pq/d^2

Where n= required sample size, Z= standard normal deviation, p= expected prevalence, q= (1–p), d= degree of accuracy

Z= Standard normal variant for level of confidence of 95% = 1.96

p= Previous prevalence of presbyopia = 30.4% (prevalence of presbyopia in Bungudu LGA of Zamfara State).[6]
q= 1-p = 1 – 0.304 = 0.696
d= precision estimate at 95% confidence = 0.05 (5%)
D= design effect =3

Inclusion Criteria;
Consenting participants who were aged 35years and above, with best corrected distance visual acuity of ≥6/18 in both eyes
• Resident who has spent at least 6 months in the community continuously

Exclusion Criteria
Individuals whose vision could not be tested, such as those with severe illness, mental illness, deafness.

Sampling Technique
Sampling was by multistage cluster random sampling with probability proportional to size. The sampling frame consists of clusters (towns and villages) of enumeration areas in Chikun LGA based as on National Population Commission (NPC) estimate for 2016. There were 165 clusters which represent the total communities/settlements in the LGA out of which 63 were selected for the study. The sampling interval (SI) was obtained by dividing the total population of Chikun LGA by the total number of clusters (SI = 484,376/165 = 2935). A starting point of 377 was randomly selected using the table of random numbers and the **SI** systematically added to select a cluster. In each cluster, the estimated population of the selected locality/village was divided by the total population of the LGA and what was obtained was multiplied by the sample size of 1084. When a cluster was selected, a bottle was spun in the centre of the cluster to determine the direction and household to be enumerated where all eligible participants, were enumerated until the required sample was obtained.

Survey Team/Data collection protocol
A Principal Investigator, ophthalmic nurse, Two Enumerators, Village guide (in each cluster).
Training of the team and a pilot study was done at settlement not selected for the survey.

Demographic information such as age, sex, clusters and the household number were collected and recorded by the enumerator. Written informed consent was obtained. An anterior and posterior segment examination was done by the PI on all eligible participants with a pen torch and direct ophthalmoscope (Welch Allyn, USA) to detect any obvious ocular pathology. The distance visual acuity (VA) of each eye was measured by the ON using the Snellen tumbling E chart for all at 6metres in ambient indoor illumination (mostly classrooms), with the subject's corrective lens in place, if any. A subject with presenting VA of 6/6 was assumed to be emmetropic. Participants with presenting VA of ≤ 6/18 had pinhole VA. Anyone with improvement by ≥ 1 line had objective and subjective refraction done by the PI. All those suspected to have astigmatism were referred to NEC, Kaduna. Uniocular and binocular near vision were tested using the LogMAR near E chart at 40cm under ambient indoor illumination with best distance correction in place (where necessary). A 40cm string was attached to the near vision chart to ensure a measurement distance of 40cm from the forehead of each participant. Identification of 3 out of 5 characters constituted a successful reading of the line and the participant was permitted to move to the next line. The endpoint of near vision was N8 at 40cm. Any one unable to read N8 had plus spherical lens in 0.25 dioptre increment added until the participant read N8 or until additional lenses yielded no further improvement.
Data was collected in a standard questionnaire, data sheet created on EpiData and analyzed using Statistical Software for social science version 20 (SPSS Chicago Illinois)with a confidence interval and P-values significant at the P< 0.05 level. Frequency and contingency tables were used to represent the distribution of data while the chi-square (X^2) test was used to test statistical significance for discrete variables. Multivariate analysis was used to predict factors associated with presbyopia

Results
Of the 1084 enumerated subjects, 1047 were examined, constituting 96.6% response rate. The mean age of participants was 48.2 years (SD= 8.194, range 35 to 87).The mean age was 48.3% (±

8.5 SD) and 48.7% (±8.0 SD) for males and females respectively. The number of females 568 (54.3%) examined was higher than the number of males 479 (45.7%).

Table 1 Baseline characteristics of persons examined

Characteristics	Male N = 478 (%)	Female N = 569 (%)	Total N = 1047 (%)
Age range (years)			
	158 (15.1)	174 (16.5)	332 (31.7)
45- 54	206 (19.7)	302 (28.9)	508 (48.6)
55 - 64	89 (8.5)	72 (6.9)	161 (15.4)
65 – 74	23 (2.2)	18 (1.7)	41 (3.9)
>/= 75	2 (0.2)	2 (0.2)	4 (0.4)
Total	478 (45.6)	569 (54.4)	1047 (100)
Literacy Level			
None	6 (0.6)	36 (3.4)	42 (4.0)
Qur'anic	3 (0.3)	0 (0)	3 (0.3)
Primary	70 (6.7)	84 (8.0)	154 (14.7)
Secondary	73 (7.0)	181 (17.7)	254 (24.3)
Tertiary	324 (31.0)	264 (25.2)	584 (56.2)
Informal	2 (0.2)	4 (0.4)	6 (0.6)
Total	478 (44.6)	569 (55.4)	1047 (100)
Occupation			
Unemployed	0 (0)	7 (0.7)	7 (0.7)
House wife	0 (0)	16 (1.5)	15 (1.5)
Farming	28 (2.7)	69 (6.6)	97 (9.3)
Other manual work	6 (0.6)	13 (1.2)	19 (1.8)
Skilled (Self - employed)	57 (5.4)	61 (5.8)	118 (11.3)
Civil/Public Servant	267 (25.5)	232 (22.2)	499 (47.7)
Retired Civil/Public Servant	49 (4.7)	38 (3.6)	87 (8.3)
Trader	72 (6.9)	132 (12.6)	204 (19.5)
	478 (45.6)	**569 (54.4)**	**1047 (100)**

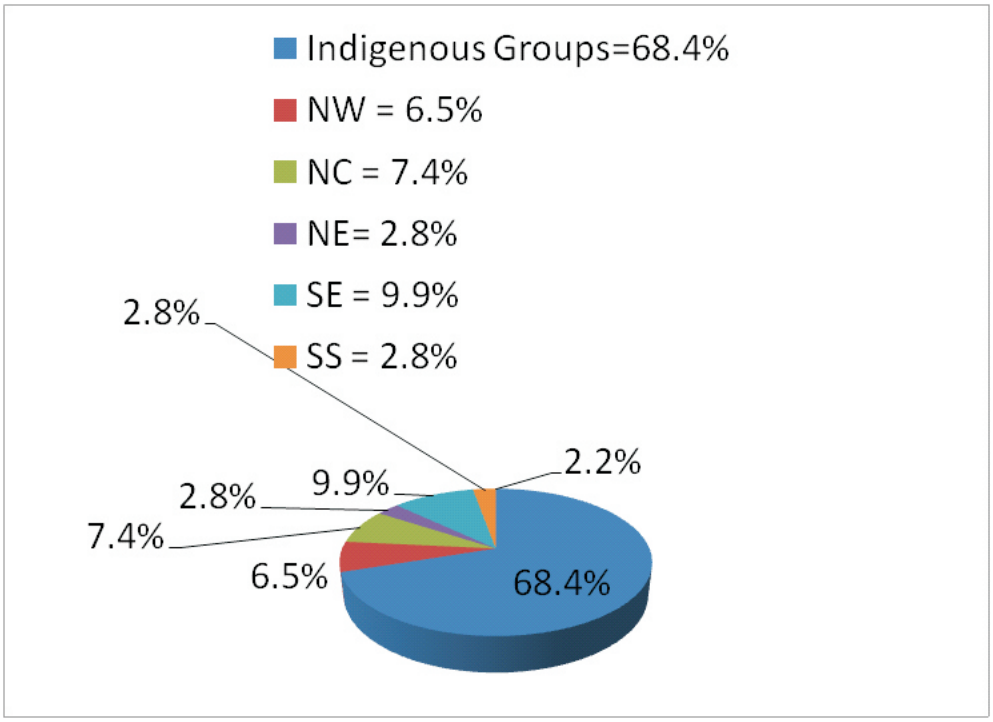

Fig 1 Distribution of Participants by Geopolitical zone

Table 2 Age distribution of presbyopes and non-presbyopes

Age (years)	Presbyopes N (%)	Non-presbyopes N (%)
35 -44	223 (67.2)	109 (32.8)
45 – 54	478 (93.9)	31 (6.1)
55 – 64	150 (93.2)	11 (6.8)
65 – 74	41 (100)	0 (0)
>/ 75	4 (100)	0 (0)
Total	**896 (85.6)**	**151 (14.4)**

Table 3Distribution of onset of Presbyopia by gender

Gender	**Onset(Years)**								
	≤35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	Total
Male	45	130	135	68	6	6	3	3	396
Female	67	175	151	79	22	4	1	1	500
	112	**305**	**286**	**147**	**28**	**10**	**4**	**4**	**896**

P = 0.138

Females have a slightly higher chance of early onset of presbyopia (ie<=40 yrs) than males, but this did not achieve statistical significance. (OR 1.18 95% CI 0.91-1.54, P=0.21)
The prevalence of presbyopia for female was 88.0% (95% Confidence Interval: 87.98% -88.02%) while that among males was 82.7% (95% Confidence Interval: 82.68% - 82.72%)

Table 4 Presbyopia distribution by literacy level in 1047 participants

Literacy level	Presbyopes N (%)	Non-presbyopes N (%)
None	39 (92.86)	3 (7.14)
Quranic	3 (100)	0 (0.0)
Primary	146 (94.81)	8 (5.19)
Secondary	214 (84.25)	40 (15.75)
Tertiary	488 (82.99)	100 (17.01)
Informal	6 (100)	0(0.0)
Total	**896 (85.6)**	**151 (14.4)**

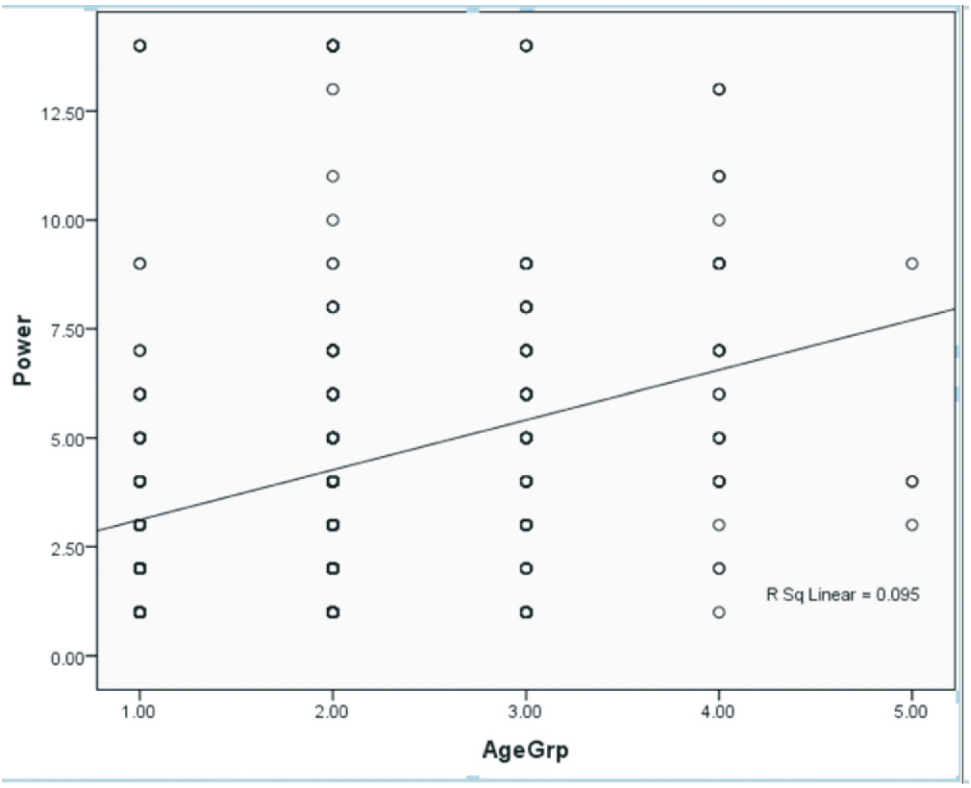

Fig. 2 Relationship between age and diopteric power of required presbyopic correction r = 0.308, n = 896, p<0.005. Age group key 1 = 35-44, 2 = 45-54, 3 = 55-64, 4 = 65-74, 5 = 75 & above

Discussion

The mean age of the participants was 48.2 years which was slightly lower than that obtained in previous population-based studies in Northern Nigeria which reported 52.5 and 53.59 respectively.[7,8] However, similar to the value obtained in Nike, Enugu (49 years).[9]This is most likely due to same age cut-off of 35 years in both studies, as against 40 years that was used by in the previously mentioned studies. The number of Female participants was relatively higher than male counterparts (P=0.041). Similar to Idowu et al's finding in Ogun State[7]due to the similar demographics (especially literacy level) in the two areas. This however was different from result obtained in Zamfara where more males were seen as socio-cultural practices affected the response rate of female participants.[6]

A prevalence of 85.6% (95% Confidence Interval: 85.5% - 85.7%) was found among adults aged 35 years and above. This translates to a magnitude of 81,638 which is about 16.9% of the total estimated population of Chikun LGA.Idowu et al reported a similar result in Ifo township Ogun State(81.3%) and so also did Mukuria in Lerosho area of Nairobi, Kenya which report a similar figures(87.8%).[11,14] However, a lower prevalence of 30.4% - 75% was reported in other population-based studies in Nigeria. It is believed that demography of the study population was responsible for the difference as majority the earlier studies in were conducted in a rural setting unlike this study and others with similar prevalence rates.[6-10,11,14]The higher prevalence in this study could be adduced to the fact that it was conducted under ambient indoor illumination which may have induced some degree of mydriasis which eliminated the pinhole effect normally seen in outdoor examination conditions. This result is also similar to the study in Zanzibar which reported a prevalence of 89.2% and maintained indoor illumination throughout the study.[16]Although this study and that in Bungudu, Zamfara State were both conducted indoors, the difference in prevalence 85.6% and 30.4% respectively is very marked. This is probably due to the disparity in proportion of female participants who are known to have higher prevalence

Also, participants in this study unlike other studies show a heterogeneous geographic spread across all regions of the country. This suggests that findings of this study to some extent represent presbyopia among the different ethnic localities in Nigeria who reside in Chikun LGA (**Fig 1**). Increasing age is a dependent risk factor for the commencement ant progression of presbyopia (fig 2) which is consistent with finding of previous studies.[21,30]

This study is not without its limitations as its possible some people with early onset presbyopia could have been missed out due to the N8 cut off.Also, spinning the bottle method of sampling which had the propensity to include only those in the central part of the community was another limitation of this work.

Conclusion

There was a high prevalence and(85.6%) and magnitude (81,638, which accounts for 17% of the total population) of presbyopia in Chikun LGA which was associated with age, female gender, and literacy level. We therefore recommend that eye care is in cooperated into the primary health care system to establish a comprehensive eye service which includes refractive services at all level. Finally, there should be middle-level manpower such as nurses and CHEW refractionists in parts of Chikun LGA to bridge the existing gap.

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GENERAL SATISFACTION WITH LIFE; A DETERMINANT OF ALCOHOL AND TOBACCO USE AMONG MEN IN PLATEAU STATE

Emeribe NA[2], Bulus NG[2], Noel NB[2], Chirdan OO[1, 2]
[1] Department of Community Medicine, Faculty of Medical Sciences, University of Jos.
[2]Community Medicine Department, Jos University Teaching Hospital.
Corresponding author: Dr Emeribe N.A
Email: nanagoso@gmail.com
Phone No.: +234-7055999991

ABSTRACT

Introduction: Satisfaction with life is a subjective well-being of an individual. Alcohol and tobacco are often consumed by people of various cultures and backgrounds and for various reasons. Alcohol is an intoxicating liquid substance that is obtained from diverse sources; it is consumed for relaxation, celebration and/or socialization. Tobacco is a substance that is obtained from plant source of which products can be smoked, chewed, sucked or snuffed. It is a substance that has been classified as harmful at all levels of use because of the deleterious health effect it has. General life satisfaction could be a predictor of human behaviour, this can affect all aspects of health; physical, mental and social. Life satisfaction could be high where an individual has a good sense of wellbeing about oneself or low when a person feels inadequate and dissatisfied with life, both extremes of life satisfaction can cause individuals to act in a certain way. This study aims to assess overall life satisfaction as a determinant of alcohol and tobacco use.

Methods: Data for this study was obtained from the Nigerian Multiple Indicator Cluster Survey (MICS) 2017 database. Data on adult males in Plateau State were extracted and variables on General satisfaction with life, alcohol and tobacco use were obtained. Analysis was carried out using the Statistical Package for Social Sciences (SPSS) Version 23.0 software. Frequencies were obtained for socio demographic variables, overall life satisfaction, alcohol and tobacco use were determined. Cross tabulations were done to compare the association between overall life satisfaction and alcohol/tobacco use at a level of significance set at $p \leq 0.05$.

Results: A total of 558 adult males were recruited for the survey, the mean age was 27.79 ± 9.74 years. Most of the respondent 464 (83.2%) reside in rural areas. About half of them 286 (51.3%) have secondary/technical education. A total of 207 (37.1%) respondents admitted to being generally satisfied with life. One hundred and seventy-three (31%) of respondents have ever drunk alcohol and from those who drink, 35 (21%) of them drink alcohol for most days of the month. Of all the respondents that were satisfied with life, 195 (94%) consumed 2 alcoholic drinks per occasion and all of them took alcohol less than 10days in a month. There was no statistically significant association between overall life satisfaction and ingestion of alcohol. Only 40 (7.9%) of respondents have ever tried smoking cigarette with only 2 (0.4%) currently smoking cigarettes. There was no statistically significant association between overall life satisfaction and

current status of cigarette smoking.

Conclusion: There is no statistically significant relationship between overall life satisfaction and alcohol/tobacco use among men in Plateau state. This finding might be attributed to the high number of missing values on variables on alcohol and tobacco use. The total response rate in some cases were less than 5% of the total respondents. If primary data can be generated for the same variables, the findings might be different from what was found in this study. There is a need for more research to be carried out on this topic.

Keywords: Overalllife satisfaction, alcohol consumption, tobacco use

1.0: Introduction

Satisfaction with life refers to the subjective well-being of an individual. Many factors are responsible for this perception some of which are physical, mental or social. it is the assessment of one's wellbeing over time as against a feeling or experience at a point in time. Terms such as happiness and quality of life are sometimes used synonymously with life satisfaction, but they all have different meanings and are used in different contexts.

Alcohol is an intoxicating substance that is obtained from diverse sources and varies from culture to culture, different societies have different views about alcohol consumption, but generally, it is a liquid substance that is consumed for relaxation, celebration and/or socialization and has intoxicating effects. Depending on the quantity and strength of alcoholic beverage consumed, it has the ability to alter one's state of cognitive thinking and judgment. Alcohol consumption is known to have effect on the medical, social, economic and mental aspects of one's life with widespread negative effect on productivity and self-esteem. Alcohol use refers to the rational, occasional and social use of alcohol in small to moderate quantities while alcohol abuse refers to the excessive use of alcoholic beverages over a period of time. Some terms used to describe problems of alcohol use include; heavy drinking, binge drinking and alcoholism.

Tobacco is a substance that is obtained from plant source of which products can be smoked, chewed, sucked or snuffed. It is a substance that has been classified as harmful at all levels of use because of the deleterious health effect it has. it is a highly addictive substance and mostly used alongside alcoholic beverages. People who consume either tobacco with or without alcohol can self-appraise their life satisfaction based on these social habits.

General life satisfaction could be a predictor of human behaviour, this can affect all aspects of health; physical, mental and social. Life satisfaction could be high where an individual has a good sense of wellbeing about oneself or low when a person feels inadequate and dissatisfied with life, both extremes of life satisfaction can cause individuals to act in a certain way.Alcohol and tobacco use are a major public health concern worldwide. Harmful alcohol use accounts for about 3 million deaths annually and a causal factor for over 200 diseases. Alcohol use is responsible for 5.1% of the global burden of disease and contributes to early onset of disease and death. It has been linked to an increase in incidence of Tuberculosis and HIV/AIDS. The World Health Organization (WHO) reported a per capita alcohol consumption among males in Nigeria at 25.6 Litres in the year 2010, heavy episodic drinking among males aged 15 years and above was 19.4% of the total adult male population, these values were derived from those who consumed at least 60grams of pure alcohol on at least one occasion in the last 30days prior study. a study carried out in North central Nigeria revealed a prevalence of alcohol consumption of 42% among adults. A study in an urban community in Plateau state revealed a prevalence of alcohol use among adults of 60.8% with 32% of them with harmful use.

The tobacco epidemic is one of the worst Non-Communicable Disease (NCD) that the world has ever experience. Fifty percent of its users die as a result. Annually, 7 million deaths are due tobacco use with

6million occurring due to direct use. in 2015, the World Bank stated that the smoking prevalence among adult males in Nigeria was 17.4%. The National Substance Abuse Survey of 2018 revealed a general substance abuse prevalence of 10% in the North central region among the general population.

The sequelae of alcohol and tobacco consumption have detrimental effect on the health and wellbeing of its users and people in their environment, alcohol consumption has been linked to the development of certain cancers such as oesophageal cancer, gastric and liver cancers, Nigeria has been identified as a leading country as regards alcohol consumption in Africa.

Tobacco consumption is a singular most important risk factor in the development of NCDs such as cardiovascular disease (CVD), chronic obstructive airway disease (COPD) with 80% of its users in low and middle income countries where the burden. Users are likely to die prematurely and live in poverty due to increase health care expenditure and families are deprived financially leading to economic hardship, hence children are forced contribute to the family economy some of them working on tobacco farms , handling fresh leaves that can lead to "green tobacco sickness"

Alcohol and cigarette consumption also have mental and psychological effect such as reduced sleep, depression, loss of inhibition, risky social and sexual behaviours. Social effects include reduced or loss or productivity at work associated with decreased earnings as seen in heavy alcohol use. Tobacco use is highly addictive and constitutes a social nuisance from the smoke emanated from smoking, it is a major public health challenge because of the air pollution it causes and the Second Hand Smoke (SHS) inhalation that affects non-smokers who are found in the immediate environment of smokers. There are no safe levels of exposure to SHS because it affects children and adults alike in varying degrees. In children effect could manifest as ear infections, asthma and sudden infant death syndrome (SIDS), in adults, increased risk of CVD, development of lung cancers and reproductive health effect on women that could result in babies with Low birth weight.

The Sustainable Development Goal (SDG) 3 aims to achieve good health and wellbeing for all. Target 3.5 is focused on preventing and treating substance abuse including narcotics and harmful alcohol use, hence a reduction in alcohol and tobacco use will improve health and wellbeing. Target 3.4 is to reduce by one-thirds premature mortalities from NCDs of which alcohol and tobacco use are major risk factors. This study seeks to establish the level of general satisfaction with life among men in Plateau state. Very few literature are available on the subject matter and were carried out on different groups such as undergraduates and secondary school teachers. Plateau state is not exempted from the economic challenges faced by sub-Saharan Africa and Nigeria, it also faces the burden of alcohol and tobacco use in all its ramifications, hence need to identify the factors that influence their use. There are suggestions and correlations as regards life satisfaction in relation to alcohol and tobacco use, hence a need to verify these.This study enquired about general life satisfaction among men in Plateau state and how this influences their use of alcohol and tobacco.

Methods

Study Area

The study area is Plateau State; it is one of the North Central States found in Nigeria. It is considered to be the twelfth largest state in the country.[3] The state covers an area of 26,899 square kilometres, the State has an estimated population of about 3,206,531 people.[3,4]There are 17 LGAs, 2 are predominantly urban and the rest are predominantly rural. The major income generating activity in the state is agriculture and the common crops cultivated are guinea corn, millet, cotton, potato, maize and beans. There are over 40 ethno-linguistic groups spread across the state such as Mwaghavul, Berom, Afizere, Amo, Anaguta, Aten, Bogghom, Buji and Challa. These ethnic groups have a similar cultural way of life.[5]

Sampling Technique

Data for this study was obtained from the Nigerian Multiple Indicator Cluster Survey (MICS) 2017 database. Data on adult males in Plateau State were extracted and variables on General satisfaction with life, alcohol and tobacco use were obtained. Analysis was carried out using the Statistical Package for Social Sciences (SPSS) Version 23.0 software. Frequencies were obtained for socio demographic variables, overall life satisfaction, alcohol and tobacco use were determined. Cross tabulations were done to compare the association between overall life satisfaction and alcohol/tobacco use at a level of significance set at $p \leq 0.05$.

Data Analysis

Data was analysed using SPSS version 23 and results were presented in tables using frequencies, proportions, and charts.

Results

A total of 558 male respondents participated in the study, their mean age was 27.79 ± 9.74 years. Most of the respondent 464 (83.2%) reside in rural areas. About half of them 286 (51.3%) have secondary/technical education. A total of 207 (37.1%) respondents admitted to being generally satisfied with life. One hundred and seventy-three (31%) of respondents have ever drunk alcohol and from those who drink, 35 (21%) of them drink alcohol for most days of the month. Of all the respondents that were satisfied with life, 195 (94%) consumed 2 alcoholic drinks per occasion and all of them took alcohol less than 10days in a month. There was no statistically significant association between overall life satisfaction and ingestion of alcohol. Only 40 (7.9%) of respondents have ever tried smoking cigarette with only 2 (0.4%) currently smoking cigarettes. There was no statistically significant association between overall life satisfaction and current status of cigarette smoking.

Table 1: Socio-Demographic characteristics of Respondents

VARIABLES	FREQUENCIES (%) n=558
Area of Residence	
Rural	464(83.2)
Urban	94(16.8)
Highest Level of Education	
None	57(10.2)
Primary	101(18.1)
Secondary/Technical	286(51.3)
Higher	64(11.5)
Non-formal	18(3.2)

About 83% of respondents live in Rural areas and 51.3% had either secondary or technical education.

Table 2: Alcohol and Tobacco habits of Respondents

VARIABLES	FREQUENCIES (%)
Ever tried smoking cigarette	
Yes	44(7.9)
No	481(86.2)
Ever tried using other forms of tobacco other than smoking cigarettes?	
Yes	3 (0.5)
No	522(93.5)
Currently smoking cigarette?	
Yes	23 (4.1)
No	21 (3.8)
Ever drunk alcohol	
Yes	173(31.0)
No	352(63.1)

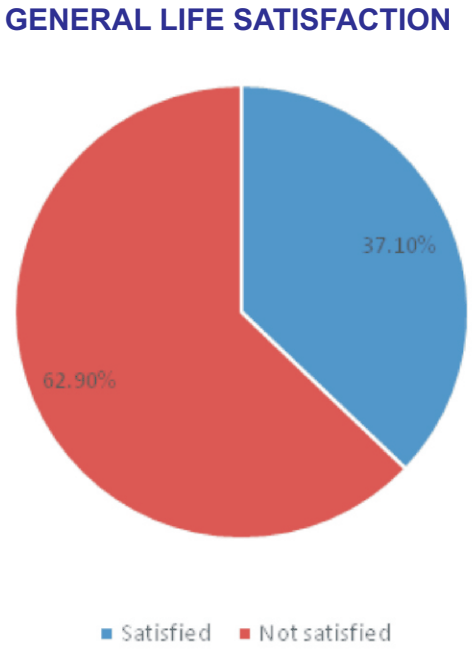

Figure 1: General life satisfaction among respondents
A total of 207 (37.1%) respondents admitted to being generally satisfied with life.

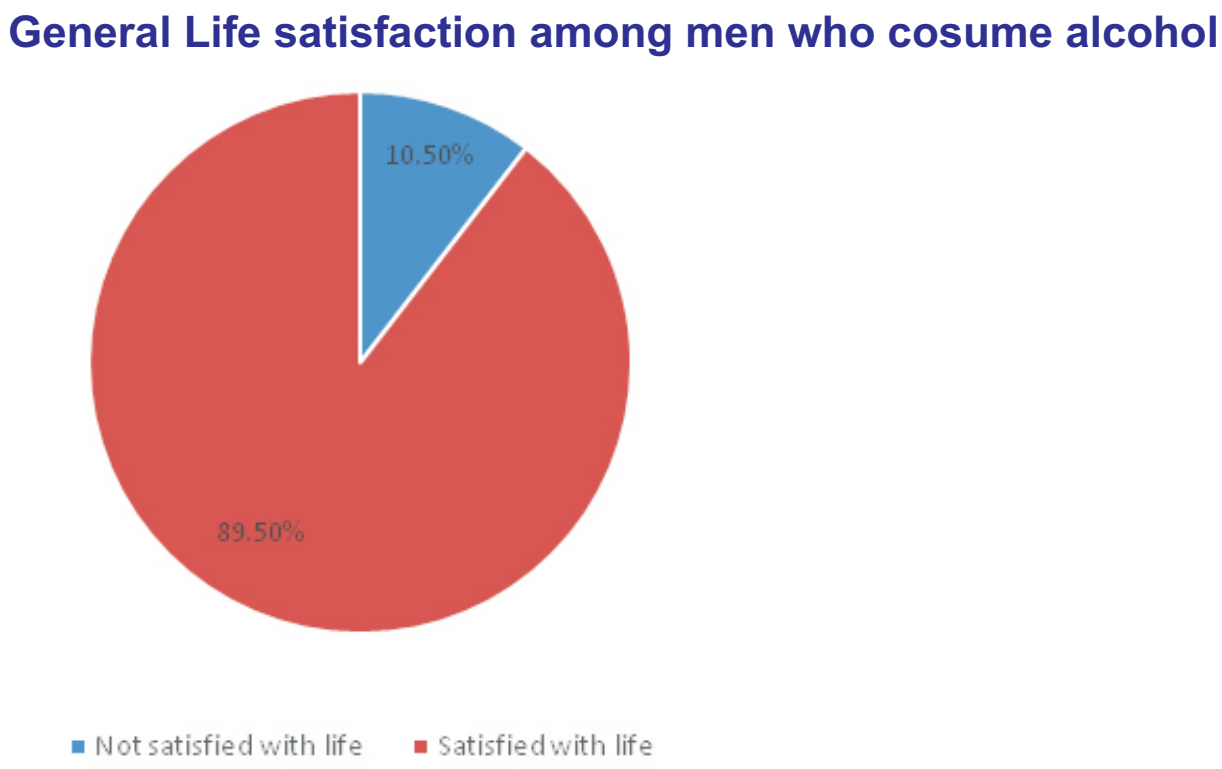

Figure 2: Level of general life satisfaction among men who consumed alcohol for 10 or more days in a month.
(x^2 = 1.569, df: 4, P=0.814)

There was no statistically significant association between general life satisfaction and the ingestion of alcohol.

Only 44 (7.9%) of respondents have ever tried smoking cigarette with 23 (4.1%) currently smoking cigarettes. There was no statistically significant association between general life satisfaction and current status of cigarette smoking.

Table 3: Association between Level of Education and Overall Life Satisfaction

Education		**Overall life satisfaction**	
		SatisfiedFreq (%)	**Not satisfied**Freq (%)
	None	3* (13.6)	19 (86.4)
	Primary	7(17.9)	32 (82.1)
	Secondary/ Technical	15(9.9)	137(90.1)
	Higher	2*(18.2)	9(81.8)
	Non-formal	0*(0.0)	10(100)

$\chi^{2=}$ 3.818[a,] df=3, p= 0.282 * cells with counts <5

There was no statistically significant association between the level of Education.

Discussion

This study was an analysis of data obtained from the 2017 MICS database. All respondents were males between the ages of 15-49 years, similar to a study conducted among young men in Malawi on Satisfaction with Job and family life and its association with smoking and drinking alcohol.Compared to this study, the age ranges were between 15-24 years. In this study, 83% of respondents dwell in rural areas and this is similar to a study on prevalence and correlates of alcohol and use among semirural community dwellers in a Southwestern Nigeria. Thirty seven point one (37.1%) of respondents admitted to being generally satisfied with life, This value is lower than 88.5% obtained in a study conducted in Malawi. The lower values in this study could be due a relatively smaller number of respondents compared to the study in Malawi where the respondents were about 3000.Among respondents, 31% admitted even drinking alcohol while data for current alcohol use was missing from the data set, hence analysis could not be carried out. A study conducted in an urban community in Plateau state on alcohol use and associated factors revealed a current alcohol usage of 67% which is higher than that obtained from a study in Oyo state, where current alcohol use was 23.7%, this variation may be attributed to the differences in geographic location where cultural beliefs and practices are different. With 57% of them admitting to consuming one drink per sitting, this is similar to the findings of this study where 46% of respondents admitted taking 2 alcoholic drinks per sitting. The categories of drinks range from beer, gin, "burukutu" (locally brewed alcoholic drink), "Goskolo (locally brewed gin), palm wine and wine. In this study, 21% of alcohol users used it for most days of the month (i.e.,>10days in a month) taking at least 1 drink on these occasions. There was no statistically significant association between overall life satisfaction and ingestion of alcohol in this study (P=0.814), a study conducted in Malawi also showed no statistically significant relationship between overall life satisfaction and alcohol use (p=0.585) and among 23.5% of those who smoked cigarettes or used tobacco products.

Conclusion

There is no statistically significant relationship between overall life satisfaction and alcohol/tobacco use among men in Plateau state. This finding might be attributed to the high number of missing values on variables on alcohol and tobacco use. The total response rate in some cases were less than 5% of the total respondents, hence statistics could not be computed for some variables of interest. If primary data can be generated for the same variables, the findings might be different from what was found in this study. There is a need for more research to be carried out on this topic.

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CASE REPORT ON A CHILD WITH A PENETRATING ORBITAL INJURY FROM WOOD

Ramyil AV, Tenmang PE Saleh N, Rwang PH, Wabare SZ, Wade PD.
Department of Opthalmology, Jos University teaching Hospital

ABSTRACT

Background.

Penetrating orbital injury is relatively infrequent in life, these injuries can be globe involving or globe sparing and it can also be sight threatening and life threatening if not promptly managed.

Intervention Patient was in supine position under general anaesthesia in conjunction with the ENT surgeons wood was removed.

Conclusion

It is commoner in young males, where wood/ Sticks are the common agents. We present a 9 year old male with a wooden penetrating injury to the nasal aspect or the orbit accidentally from his younger sibling.

Key words: penetrating, orbital, injury, wood.

INTRODUCTION

Penetrating orbital injury is relatively common during civil life. These injuries can be globe sparing affecting mainly the orbital structures or globe involving, they can also be sight or life threatening.[1] Intraorbital and periorbital foreign bodies may occur after direct trauma, metal injuries, splinter injuries in wood workers and occupational accidents and may be responsible for one out of every six orbital injuries.[2] Penetrating eye injuries is common in children 0-16years (42%) followed by adults $\leq$ 30years (41.6%).[2] These injuries occurring in children are mostly accidental however it can occur as a result of assault.[1] Wood/stick injuries was found to be the common cause of penetrating orbital injury (41.2%).[3, 4] Young men are seen to be at relatively higher risk of wooden intraorbital foreign body.[5] Prompt treatment of these injuries with removal of the foreign body and administration of antibiotics is important to prevent loss of vision and other complications that may lead to loss of life.[2] This case report provides the management of a 9-year old boy who had orbital injury caused by a piece of wood which penetrated the left orbit through the lower lid nasally accidentally.

CASE REPORT

A 9 year old child (I. M) from Wase Plateau State North Central Nigeria, was rushed to the hospital on the 7th of December 2019 by the mother who was also the informant. She admitted that the patient was injured in the left eye with a piece of stick while playing with his younger brother. Patient was said to have fallen to the ground face down driving the piece of further into the globe. The patient experienced excruciating pain. As a result of the injury, the eye bled with subsequent swelling of the lids, and difficulty in opening the eye due to the presence of wood. However, there was no drainage of jelly-like substance from the eye, no bleeding from the nose and no convulsion.

Examination of the patient revealed a young child in great pains, and bleeding from a swollen left eye with a stick insitu, lodged around the left nasal orbit close to the nasolacrimal sac (fig 1). Though the lids were swollen and tender, however it was possible to gently separate the lids and visual acuity was taken with the child being able to count finger at a meter. The conjunctiva was also noticed to be chemosed.

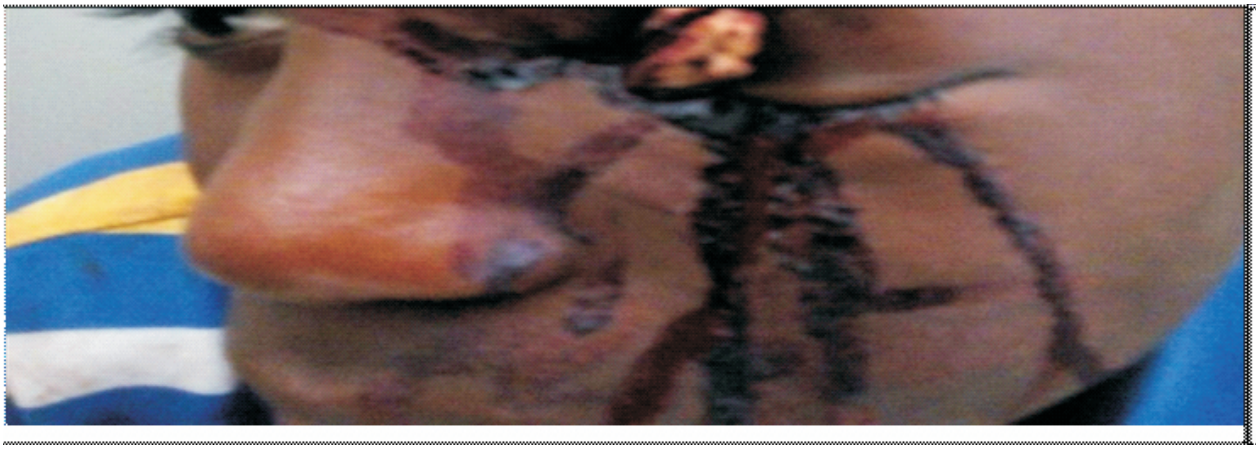

Figure 1 piece of wood logged in the left inferior orbit.

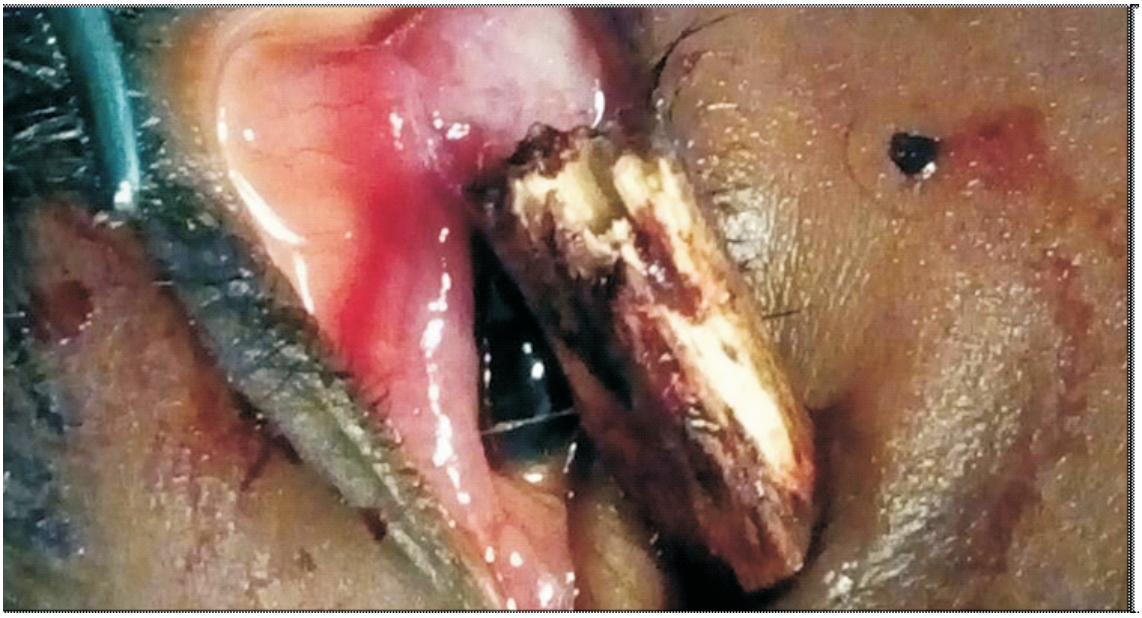

Figure 2 piece of wood logged in the left inferior orbit.

Figure 3 After removal of the wood from the orbit globe intact.

Otolaryngologist, Paediatrician and Neurosurgeons reviewed the patient to determine his clinical status, and the involvement of other surrounding structures but all was found to be normal. Investigation done were random blood sugar, hemoglobin level, urea and electrolyte were all within normal range. Others included orbital X-ray, which was poorly defined. Unfortunately the parents could not afford the cost of a CT scan. Ocular ultrasound scan done showed the globe to be normal. The anesthesiologist reviewed and certify patient fit for general anesthesia.

Pre-operative treatment included intramuscular anti-tetanus serum (1500 IU), intravenous fluid, paracetamol, metronidazole and ceftriaxone. Child was kept NPO for 6 hours and an informed consent was obtained for the exploration and foreign body removal under general anesthesia.

Procedure

With the Patient under anesthesia routine cleaning and draping was done, with the use of an artery forceps the wood was held firmly and pulled out gently, leaving a dead space leading into the maxillary sinus. This was irrigated with saline and filled with chloramphenicol. The outer wound was sutured using Vicryl6-0, subconjuctival dexamethasone 4mg and gentamicin 40mg given with 5% povidone iodine instilled into the conjunctiva sac. Patient was placed on systemic and topical antibiotics, antifungal topical medications, analgesics and chymotrypsin for 5 days. Child was discharged after 5 days with significant improvement in vision to 6/6, resolved chemosis and no restriction in ocular motility.

Discussion

Orbital trauma can be blunt or penetrating. Penetrating orbital injuries can be through the skin and bone into the orbit, through the lids and sometimes through the interpalpebral fissure.[1] it has been reported that different, material can penetrate the orbit such as glass, arrow, wood and metals.[6] penetrating orbital injuries represent a small but very complicated portion of head injury because of the close proximity to many vital structures and any penetrating orbital injury will require a multidisciplinary follow-up. Surprisingly, in many of penetrating injuries to the orbit, clinical signs are not immediately apparent[7]. Penetrating orbital injuries depends on the nature of the object missile or non-missile, orientation and depth of penetration. Because the orbital is quadrilateral pyramid, these objects can penetrate the medial, lateral, superior, or inferior rim. Less commonly, extraorbital penetration can occur, in which an object enters the orbit from the posterior aspect (i.e. penetrates the neck and enters the orbit)[7]. The globe is at risk of damage from penetrating orbital injury and these objects also have the tendency of causing brain injury as they can extend to the cranial cavity. Though some studies showed some penetrating orbital injury with globe sparing.[6] Accurate localization of these intraorbital foreign bodies is important to evaluate the severity of the ocular lesion and to determine further management approach.[2] Computer tomography (CT) scanning, ultrasound bio-microscope (UBM), and B-scan ultrasonography are widely used procedures in the assessment of intraorbital foreign body.[2] CT is considered the first-line imaging methodology, and most sensitive method for characterizing ocular trauma in patients with a suspected intra orbital foreign body,[8] non-contrast CT scanning is the preferred imaging modality for determining the course of the penetrating object and the extent of tissue injury. MRI is useful when the penetrating object is wooden because the foreign object can easily be differentiated from the surrounding tissue. With CT scanning, dry wood has a similar density to air and wet wood has a similar density to adjacent tissue.[7]Although in this case we could only do a plain x-ray that was poorly defined for localizing the foreign body and an ocular B-scan that showed the globe to be intact. Wooden intra-orbital injury can be in various forms this was reported in a study were pencils were seen to be the commonest form accounting for 39%, tree branch/ plant matter 35% and other treated wood 26%.[5] A study done in North western Nigeria showed penetrating orbital/ocular injuries to account for 4.2%.[9] A full radiological work up should precede removal of orbital foreign body removal and should be removed in controlled environment though rare fatal hemorrhage has been reported in uncontrolled environment. Early administration of antibiotic therapy upon admission of patient is necessary in preventing infections in these category of patient, those who do

not suffer orbital bone fractures can should be treated conservatively.[7]Though there was no infection noted in our patient probably because patient presented immediately and intervention was given within 24 hours with antibiotic cover. Surgical intervention becomes necessary when the foreign object is retained in the orbit or there are bone fractures, CSF leaks, intracranial hematoma, or vascular injuries.[7] Any surgical plan requires a multidisciplinary effort involving the ophthalmologist, neurosurgeons, otolaryngologists, maxillofacial surgeons and radiologist for proper care.[7] Orbital cellulitis has been reported to occur as a complication in some cases,[10]also sympathetic ophthalmitis[7]. Penetrating orbital injuries and postoperative complications include CSF leaks, traumatic aneurysm, cavernous fistula, cerebral abscess and meningitis. The risk for abscess formation increases exponentially when the penetrating object is organic[7].

Conclusion

Penetrating injuries should be evaluated and treated immediately, depending on the material causing the injury, the direction of injury and location of the material, severe vision loss can occur. Early presentation and treatment of this orbital injury was crucial in preventing complications like periorbital and orbital cellulitis or endophthalmitis and loss of sight to this our patient.

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EOSINOPHILIC COLITIS: A CASE REPORT

Davwar PM[1], David NP[1], Mashor M[2]
Affiliations: 1.Jos University Teaching Hospital, Jos, 2. Bingham University Teaching Hospital, Jos.

ABSTRACT
A 26-year-old presented with 2 years history of recurrent diarrhea, he had a colonoscopy with multiple biopsies taken which showed evidence of eosinophilic infiltration of the lamina propria. She was treated

Introduction

This is a rare clinical condition in which eosinophils cause inflammatory changes to the colon. It is a form of primary eosinophilic disorder of the gastrointestinal tract that affects both young adults and infants but has also been reported in patients in their 60s.(1)

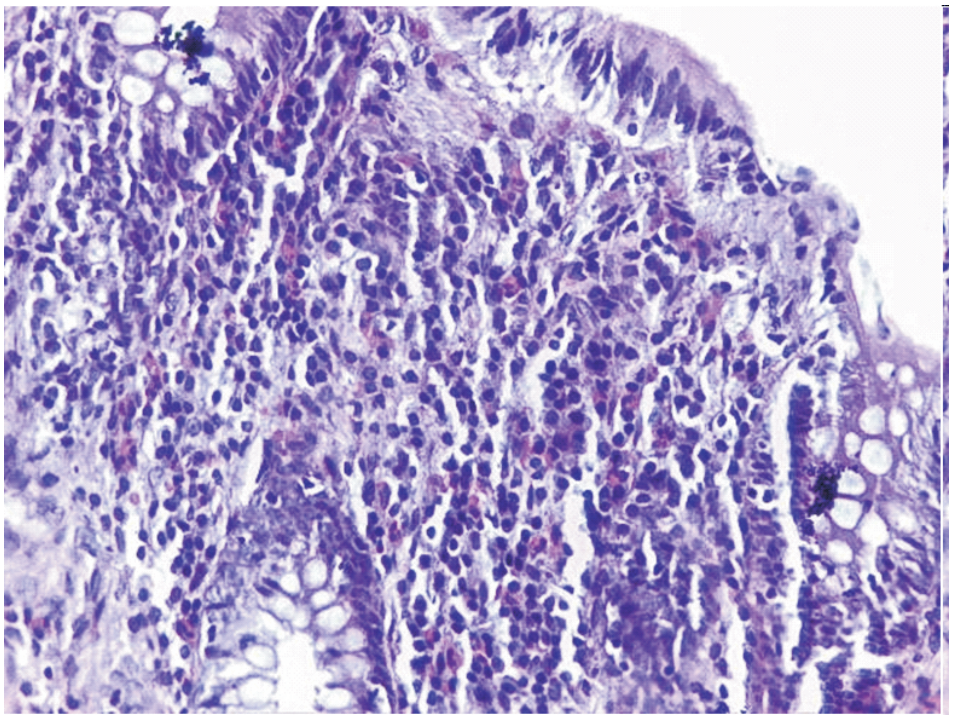
The disease entity was first described in1936 and since then has been a subject of several case reports. Among the eosinophilic gastrointestinal disorders which include eosinophilic gastroenteritis and esophagitis, Eosinophilic colitis is the rarest while esophagitis is increasingly being recognized as an important entity affecting 1% of the general population. (2)

The exact etiology and pathophysiology of eosinophilic colitis are not well known however it's suggested there may be a relationship to food allergies. This has been demonstrated by the response to dietary modification.(3) In this case report, we present a 26-year-old presenting with loose watery stool for 2 years.

Case Report

A 26-year-old female patient presented to us with a history of loose stool for the past 2 years, occasionally associated with specific meals. She had no other alarm signs but was referred for colonoscopy to evaluate grade 2 hemorrhoids and diarrhea.

She was prescribed antibiotics at different times while she had symptoms. Her colonoscopy was essentially unremarkable except for few areas of hyperemia in the caecum and sigmoid colon. She had multiple biopsies taken from the colon for histology which showed moderate infiltration of the lamina propria by chronic inflammatory cells mainly eosinophils, lymphocytes, and plasma cells. Their eosinophil cells were 25per HPF in the biopsy specimens. She also had no peripheral eosinophilia. She was started on steroids and responded with no episodes of diarrhea since commencing steroid therapy.



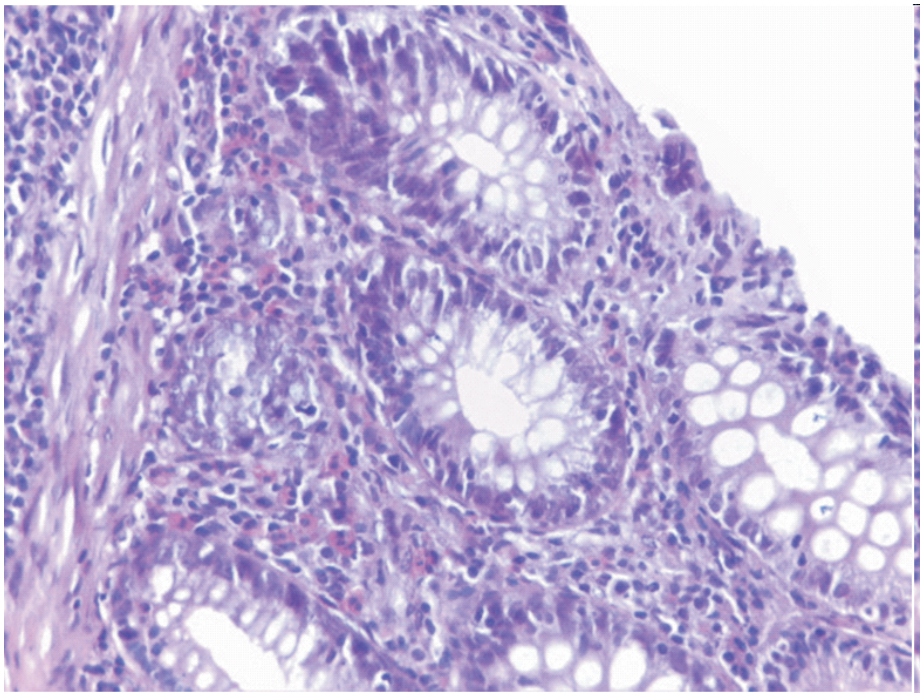


Figure 1a and b. Figure 1. The figures show an HPF (x400) of H&E stained photomicrograph of colonic mucosal tissue with multiple eosinophils in the lamina propria

Discussion

Eosinophilic colitis has been described as a very rare entity without consensus diagnostic criteria. In the past ten years, the number of case reports has progressively increased in the literature which is a testament to growing understanding and awareness about this disease entity. A high index of suspicion is required to make a diagnosis of this disease entity. In the case of our patient, she has had repeated doses of antibiotics and anthelmintic and repeated stool microscopy and culture carried at every visit to the hospital. It was assumed she had an infectious cause for her diarrhea. This underscores the importance of proper evaluation and appropriate investigation and interpretation of clinical data available. Moreover, colonoscopy should be offered to people presenting with chronic diarrhea and colonoscopist should also have a high index of suspicion as it was the case in our patient. Despite very minimal mucosal changes multiple biopsies were taken and sent for pathologic analysis.

The exact cause etiology of EC is also not clearly known authorities believe it is related to an allergic reaction to an allergen that may be either from food, drugs, or environmental triggers.(4) A recent case report demonstrated the presence of mast cells in the colonic interstitium of patients who were found to have EC, in another separate case report, the precipitant was ingestion of seafood. In our case, the patient reports that diarrhea is made by certain foods type which she avoids with improvement in her symptoms.

There are many mimics of EC and therefore, before a diagnosis of EC is made potential causes of eosinophilic will have to be excluded. Drugs are known to be causes of eosinophilia in the colon, drugs such as Non-steroidal anti-inflammatory drugs rifampicin and carbimazole have all been implicated but our patient did not use the above medication.(5) Colonic eosinophilia has also been associated with parasitic infestations such as pinworms and whipworms. In these tropical regions where parasites are prevalent pathologists should be aware when considering the histologic segments. In this index case, the pathologist report was explicit about the absence of parasites in the colonic tissue under evaluation.

Our patient is a 26-year-old lady, she falls in one of the characteristic age groups of the bimodal distribution of the EC. The age at presentation has prognostic significance with patients who present in infancy having a better prognosis when compared to others who are presenting as adults. the clinical symptoms at presentation are also determined by which part of the colonic tissue is infiltrated by the eosinophils. Patients who present with diarrhea tend to have mucosal involvement while those who present with signs of intestinal obstruction and some form of motility disorder have transmural eosinophilic infiltration. While ascites can be the presentation when the serous layer is involved.

When other causes of eosinophilia are excluded, a diagnosis of eosinophilic colitis can be made in the presence of eosinophilia in blood tests, in the colonic tissue, and consistent symptoms. Our patient did not have peripheral eosinophilia but she had characteristic symptoms and eosinophils in the colonic tissue at histology. It is known that about 20% of patients with EC may not have peripheral blood eosinophils while 60-80 % will have blood eosinophils.(7)

Our patient is currently on steroids and she has had a good response to the medication; she is also combining dietary modifications also to maintain symptom-free episodes. These are two well-known treatment modalities that have been employed in the management of patients with EC.

Especially in cases of childhood EC where withdrawal of the allergen is associated with a resolution of the symptoms of the patient.Whereas steroid therapy is for an initial prolonged period of up to 8 weeks in adults and then tapper the steroid down.(4) Other possible medications that can be used are Budesonide, Sodium cromoglycate, and leukotriene antagonist.

Conclusion

This rare clinical entity is a possible cause of diarrhea in our environment and a high index of suspicion is required to clinch the diagnosis and initiate treatment.

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VISUAL IMPAIRMENT AS A SOCIAL DISADVANTAGE AND ITS IMPACT ON HEALTH OUTCOMES

(*Working Title: Eze – Visual impairment, impact on health outcomes*)

[1,2,3]Ugochukwu Anthony Eze *MBBS, FMCOph*
[1]Department of Ophthalmology,
Federal Medical Centre, Asaba, Nigeria
[2]Division of Postgraduate Studies, Department of Public Health,
University of Suffolk, Ipswich, United Kingdom
[3] Health Economics Division, Department of Economics,
Postgraduate School, Kaduna State University, Kaduna, Nigeria

Correspondence Address: ugorexeze@gmail.com

ABSTRACT
Visual impairment as a form of disability, is a source of social exclusion. It has negative impact on health outcomes of a population and is considered the most common form of disability. This review article sought to highlight the social characteristics of visually impaired people, their unique challenges, access to healthcare, the interaction between these factors and their health outcomes. Following the discussions, evidence based recommendations were made and finally a case was made for more proactive measures by stake holders improve the social determinants of health among visually impaired as this is naturally expected to improve their health outcomes.

Keywords – *visual impairment, social disadvantage, impact, health outcomes*

Introduction

Visual impairment is a visual state that affects the ability of an individual to complete one's daily activities independently and is an important impediment to social acceptance.[1] It is considered to be the most common form of disability.[2]

The international classification of diseases (ICD – 11, 2018) classified visual impairment into mild, moderate, severe visual impairment, and blindness based on the best-corrected visual acuity.[3] Globally, the estimated magnitude of blindness in 2015 was 36 million, and 217 million with moderate to severe visual impairment.[4] Being a form of disability, people with visual impairment with other vulnerable groups such as women, girl's children, elderly, people with HIV & AIDS, migrants, and internally displaced are at constant risk of social exclusion.[5] One unifying factor among these vulnerable groups is low socioeconomic status. For different reasons, they are at risk of poor access to quality education, abuse, and other forms of social exclusion. Like every other group of humans, the visually impaired population has various needs. These needs when not realized, serve as barriers to social integration. Soleimani-Sefatet al[6] reported the common needs of visually impaired students in Iran. These needs were categorized into training needs for school (books, basic health needs, teaching, and tutors), financial needs for basic upkeep, and special needs such as rehabilitation services, social works need, leisure needs (sports arena and facilities). Other needs include communication skills, empathy from the public, and unique opportunities.[6] In the same vein, they have unique challenges categorized as violence-related (mockery, teasing, harassment, and sexual abuse), education challenges (lack of access to facilities and materials), mobility (inappropriate sidewalk and transportation) related and lack of recreation facilities and tutors. These needs and challenges on their merit have respective impacts on health outcomes. In addition to the common health needs of the general population, blind and visually impaired individuals have psychological

challenges, difficulties with the activity of daily living, and low health-related quality of life.[7] Also, blind and low vision patients also gave challenges accessing prompt, safe, and effective health care.[7] Anxiety towards the experience of darkness, suicide rates, reduced cognitive function may all be worsened by practitioners who do not have an insight towards their unique challenges.[8]They may also have adherence issues with medication and other forms of therapy which may also contribute to poor health outcomes. This review seeks to highlight the major challenges of the visually impaired and their impact on health outcomes with the view to making lasting recommendations to mitigate the challenges of this socially disadvantaged group.

Discussion

According to the world health organization (WHO), there is an uneven distribution of blindness and visual impairment across nations and regions of the globe, with higher prevalence in low and middle-income countries.[9]The reason for this is poor access and cross inequity of distribution of basic eye care in such places. Blindness and visual impairment have an impact on the individual, immediate, extended families, and in some cases neighbors.[10]It has been established that blindness is more common in low socioeconomic settings for obvious reasons. This affects the employment and income of those involved. It affects family nutrition, mental state, affects children's schooling, and encourages childhood labour which exposes them to other harmful vices that have a negative influence on health outcomes. The vicious cycle of blindness and poverty is endless as blindness can be said to cause poverty while poverty also predisposes to blindness. For adults in the family, blindness also affects their activities of daily living and quality of life. These may not be expressed directly in monetary terms but on its effects on quality-adjusted life years (QALY) and disability-adjusted life years (DALY) of the victim and caregivers. There are direct, indirect, and intangible costs tied to blindness that contribute to the cycle of blindness, visual impairment, and poverty. In a study by Yan et al in rural China, the socioeconomic impact of visual impairment was significant.[11] Visual impairment affected economic status, employment levels, and income. They went ahead to suggest that blindness prevention programs should be packaged alongside development and empowerment programs. Earlier reports from the Andra Pradesh Eye Disease Study revealed that lower per capita income increases the odds of blindness, also lack of education is to increases the risk of blindness by three folds.[12,13]Also in other parts of the world, a high prevalence of blindness was reported populations of African, Asian, and Indian descent.[14]The Baltimore Eye Disease Study reported a higher prevalence of blindness (1.75% as against 0.76%) among 'blacks' compared to 'whites' aged forty years and above.[15] This supports the assertion that inequity suffered by ethnic minorities negatively impacts health outcomes. Also, inequity affects the socioeconomic status of women and the elderly which affects their access to eye health services leading to a higher prevalence of blindness among this disadvantaged group. Data from a meta-analysis on gender and blindness reveal that 64.5% of the world's blind are females.[16]They concluded that there is overwhelming evidence supporting the association between lower socioeconomic status and blindness. This is a double strategy for these vulnerable members of the population.

People with disabilities (VI inclusive) have general health needs and need equal access to such but the reality is that few countries have adequate services for people with special needs. People with blindness and visual impairment also have poor access to health care. Hasse and Ritter in Arizona identified the following barriers to proper access to health care in this group.[17] They are “inability to read appointment reminder cards”, “transport difficulty to a facility”, “inability to read or fill out paperwork”, “difficulty finding assistance from family members or facility staff”, “difficulty navigating within the facility”, “inability of family and facility staff to understand needs of the client”, “lack of provider education on etiquettes for dealing with client”, and lack of low vision aids at strategic points in a facility”. A clinical review by Cupples and Jackson completely agrees with the barriers listed in Arizona by Hasse and Ritter.[17,18] They went ahead to suggest that health workers should consider intermittent blindfolds of different types especially at leisure time to enable them to gain insight as to the plight of visually impaired

clients who consult at their clinics.[18] Other causes of poor access to health are among people with special needs include prohibitive cost, lack of insurance, and limited services especially in rural areas which lack certain basic infrastructure through city centers are not completely exempted especially in low resource countries.[19] Prohibitive cost and lack of insurance present a twin challenge for this group of people though could be viewed as the same since they may share some cause and effect relationship. The in the preceding paragraph, a relationship between visual impairment and socioeconomic status was established at the individual and community or national level. Since health care is neither free nor cheap, the price of health services rendered may be seen as prohibitive by people who cannot afford it, not minding that this is a business venture from where many people get their livelihood. This view is not unexpected among people with special visual needs as much time they can't afford. Even when they can afford it, no one saves money and plans to get sick. Unfortunately, low-resource settings have a higher prevalence of this condition. Access to good and basic healthcare is considered a fundamental human right. This is why campaigns for universal health coverage have taken the front stage in many nations. However not every nation is viable to implement comprehensive insurance for all her citizens though desirable. A mixed-method survey in the United Kingdom revealed that 74% of visually impaired individuals could not read health information made available to them.[20]One thing is to make information available and it is a whole different issue assimilating and interpreting this information available and making rational choices for the good of one and his surroundings. Without basic information such as the location of facilities, services available, and so on, it is unlikely of one to seek requisite help. Some other factors relating to access to healthcare have been captured in the previous paragraph but the important lesson here is lack of access to health care translates to poor outcomes. On behalf of the Nigerian National Blindness and Visual Impairment Survey workgroup, Tafidaet al[21] highlighted the association of poverty and poor access to eye care services. The group concluded that elimination of avoidable causes of blindness is not in view if access to eye care is not improved and this can be extrapolated into all aspects of health care vis-a-viz health outcomes.

VI negatively impacts mental status, comorbidities, compliance, and quality of life. Coexisting comorbidities could be very challenging with visual impairment (VI). For instance, a diabetic with a visual impairment from diabetes or other causes, would not be able to practice proper self-care. Diabetes mellitus and visual impairment are independent risk factors for injury. Though a study in Indonesia did not show any relationship between visual impairment and the development of foot ulcers.[22] Visual impairment in diabetics as an independent risk factor for mortality in diabetics.[23]The visual loss also causes adherence issues in disease management as the patient has difficulties locating medications, reading instructions. Vision is also needed for good nutritional choices. With chronic comorbidities, visual impairment is not exempted from its negative impact on health outcomes.

The various grades of visual impairments exert some degree of impact on quality of life, and activities of daily living which are health outcomes equally. Risk of falls and injuries, restrictions, sedentary lifestyle predispose to mental heal challenges which could be measured as quality-adjusted life years and disability-adjusted life years.[10]This also has a significant negative impact on health-related quality of life (HRQoL) Eyecare and rehabilitation services are important for mental stability and will reduce the impact of exclusion and improve the health outcome of this population.[24]

Earlier in this review, it was noted that one of the unique needs of people with special needs (including the visual impaired) is a lack of recreational facilities and support staff. This is elaborated by Houlihan and Stenvenson's findings which showed that the visually impaired are more prone to non-communicable diseases compared to sighted individuals due to lack of physical activities.[25] The review confirmed a higher prevalence of chronic conditions and a higher rate of inactivity compared with their sighted counterparts. Moderate to vigorous physical activity is known for its prophylactic effect in the prevention of non-communicable diseases especially those of cardiovascular origin and also

non-pharmacologic therapy for the control of these conditions.

Many authors have reported that people with special visual needs are at increased risk of various forms of abuse, exploitation, and social exclusion.[26] A cross-sectional survey in Norway reported that people with disabilities have a higher risk of sexual assault than the general population.[27] Another study in Addis Ababa reported that two-third of visually impaired women have experienced sexual harassment from family members (29%), Neighbors (26%), strangers (19.3%). The study equally showed that these women are prone to harassment from blind men too.[28] This has a profound effect on the psyche, social interaction, and physical health of such women. Consequently, they may manifest as aggression, insomnia, severe depression, suicidal attempts, and social withdrawal. Also, unwanted pregnancy, sexually transmitted diseases, are the end products that negatively impact the health outcome of victims.

Recommendations

Having reviewed the causal relationship between blindness, visual impairment, and health outcome, gradually the curtain on this discussion shall be drawn with some recommendations and available evidence that mitigate the negative impact of this condition on health outcomes.

1. Blindness prevention and control programs should be all-inclusive. Those who conceive, design, and implement blindness prevention programs should pay attention to the infrastructure needed to drive economic development programs to empower the community and not just concentrate on diseases. Economic empowerment is an integral part of rehabilitation.
2. Infrastructure promotes economic activity which is a stimulus for development. Economic empowerment promotes access either because the people have more resources to pay for services or health facilities become situated closer to the community thus improving access to services. There is a need for training for facility-based or home-based caregivers to entrench humane attitudes and interactions with the blind and visually impaired members of their community. This will also entrench better professionalism in dealings and care of clients with special visual needs. Provision of optical, non-optical low vision aids, rehabilitative services training of eye care workers on low vision care will go a long way at improving access to health care for disadvantaged members of the society. Non-optical aids include a wide range of environmental modifications needed the make public places friendly to suit the unique needs of the special members of the community.
3. Policy interventions are needed to protect the rights of vulnerable groups. Everybody is a stakeholder on issues of rights protection for people with special needs. This includes support groups made of people with various forms of disability, civil society organizations, and professional groups. Any of these could champion advocacy drives for the common good of people with social disadvantage. This could serve as a springboard that will lead to vital legislation for budgetary allocation, infrastructure development, and other policies needed to advance the cause of vulnerable groups. Also, policies that promote universal health coverage will lead to different forms of insurance schemes that in the long run improve access to health care for all irrespective of status is paramount. Evidence of government and policy role on health outcomes resides in the fact that majority of the world's blind people are in low and middle-income countries.[16]
4. Data generation in the form of a situational analysis, needs assessment, disability registry. Data generation, analysis, and interpretation are the 'bedrock' for evidence-based intervention at a local regional, and national level. A needs assessment or a situational analysis tell reveal the magnitude of the problem, mating infrastructure with the standard, and identifies the gap. This will serve as the basis for rational budgetary allocation,

planning, advocacy for the legislative bill, and policy modification for better intervention.

5. Review of existing health laws and match them with current realities. This is another form of needs assessment at the government level. Activities of governments are far-reaching as they regulate the activities of citizens. The government at a various level have a duty of protecting the right of its citizens. In this case, access to health care is a basic right and the responsibility of the government to protect.
6. The synergy of all stake holders in planning and design of projects for a holistic approach and rational implementation.

Conclusion

The review has shown that visually impaired individuals like other disabled groups experience a diverse range of exclusion which affects their health outcomes negatively. Stakeholders must take seriously issues concerning this vulnerable group for a healthier society.

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PHYSICIAN'S ATTITUDE AND PRACTICE TO DISCLOSURE OF CANCER DIAGNOSIS TO PATIENTS IN JOS UNIVERSITY TEACHING HOSPITAL NORTH CENTRAL NIGERIA

IornumHembe Shambe[1], Clement Ekere[2], Samuel Onuh[3]
Department of Obstetrics and Gynaecology University of Jos[1]
Queen's Specialist Hospital Abuja[2]
MédecinsSansFrontieres Jigawa[3]
Corresponding author: IornumHembeShambe
Email: iornum@yahoo.com

ABSTRACT:
Background: As the prevalence of malignancies increases worldwide in general and in Nigeria in particular, clinicians are faced with the responsibility of disclosing life altering information to their patients about cancer. How this is disclosed often has implications on subsequent management.
Objectives: The aim of this study was to assess the attitude and practice of clinicians in Jos University Teaching Hospital on disclosure of cancer diagnosis to patients.
Method: This was a cross-sectional study of 169 clinicians across 9 clinical departments practicing in Jos University Teaching Hospital (JUTH) between April to May 2017. The responses on attitude and practice were scored based on a six step SKIPES protocol on delivering bad news. A minimum sample size of 100 was calculated but increased to 150 to compensate for non-responders. The questionnaires were administered at duty posts of doctors. Simple percentages were used to describe responses on attitude and practice and Fisher's exact test was used to analyze contingency tables. The data were analyzed using SPSS version 16.0.A p value of 0.05 was used to test for significance.

Results: Most of the respondents were clinicians in the departments of Surgery 37(21.9%) and Obstetrics and Gynaecology 35(20.7%). Registrars were in the majority in the responders (55%), senior registrars were 26% and consultants made up 18.9% of the respondents. The mean age of respondents was 36.90±6.68,77% of the respondents frequently treated malignancies while 55% treated malignancies occasionally and 2.4 % had never treated malignancies. 99.4% felt patients should be informed about a diagnosis of cancer before treatment and 69.8% felt it was the responsibility of the managing consultant to disclose cancer diagnosis to patients while 30.2% felt senior registrars should do so.Nearly 80%(78.1%)felt they were capable of disclosing cancer diagnosis yet a majority (88.8%) felt they required training on breaking of bad news to patients with a significant number of those who felt they required training on breaking of bad news were under 50 years of age p=0.012.More of the disclosure (56.8%) was done at bedside and 43.2% was in the clinic.

Conclusion: Physician's attitude and practice of the protocols for disclosure of cancer diagnosis were generally satisfactory but a statistically significant number under the age of 50 years acknowledged their need for additional training on this skill.

Key words: attitude, practice, Cancer diagnosis

Introduction:

Breaking the bad news of a diagnosis of cancer in the face of late presentation commonly witnessed in Nigeria and an often-bleak prognosis is a daunting task for most doctors. It is however a necessary part of the management process to elicit the consent and cooperation of a patient in developing treatment strategies. Bad news is defined as "any information which adversely and seriously affects an individual's view of his or her future'.[1]The diagnosis of a malignancy therefore is bad news and a life changing event.

Communication related to the diagnosis of cancer is a complicated matter that transcends a mere transfer of facts. Many patients come with their own belief systems and preferences influenced by family and care givers with peculiar cultures that need to be factored in the process of disclosure .[2]

Disclosure can either facilitate therapeutic bonding between the doctor and the patient or worsen it. Adverse outcomes for example have been described in patients with gastrointestinal and lung malignancies with increased pain scores and poor physical and emotional functioning after disclosure was done poorly but handled competently, patients suffering from breast cancer had reduced long term emotional distress and physical well-being.[3,4] Studies on cancer patients in Nigeria show that over 50% wish to know the truth about their diagnosis even when the disease is terminal or advanced.[5]

Meeting the desire of patients to know their diagnosis requires a physician to move beyond a mere statement of the diagnosis and includes responding to emotional reactions, dealing with a patient's expectations for possible cure, dealing with stressed family members and having to cope with situations where the intent of treatment may be only palliative. This often makes such interactions an avenue for miscommunication, with attending physicians, patients and family members having different expectations about outcomes.[6,7]

Protocols vary for the breaking of bad news but the 6 step strategy SPIKES protocol that this study was based on requires that the clinician arranges for some privacy, mentally rehearses the plan for telling the patient and preparing for emotional reactions or difficult questions. Significant family members are also invited and the patient's perception about the illness itself is assessed before information on the diagnosis is shared.[8]

This aim of this study is to describe the attitude and practice of clinicians in JUTH regarding this skill during an increasing prevalence of cancers in Nigeria.

Materials And Methods:

This was a descriptive cross section study carried out at the Jos University Teaching hospital (JUTH) a tertiary hospital in North Central Nigeria. The hospital serves as a referral center of the neighbouring states of Benue, Bauchi and Nasarawa. The study was carried out over a 4-week period between April and May 2017.A structured, closed end questionnaire was administered to doctors at clinics and other duty posts regarding their attitude and practice of disclosure of cancer diagnosis to patients. Ethical clearance was obtained from the Ethics Committee.

Statistical analysis

Analysis of data was carried out using (IBM corporation Mac OS, linux and unix 2015 version 22).Results were presented in tables and figures and figures as percentages. Statistical significance was calculated using Chi-square test with the level of significance set at p-value < 0.05.

Results

The mean age of respondents was 36.90±6.68. Respondents were mostly between ages 30-39 (69.2%), Male participants were n= 132(78.1%) and 36 were female (21.3%). Respondents cut across different departments, varying from surgery (21.9%) to Heamatology (3.0%). (Table 1)

Clinicians in the departments of Surgery 37(21.9%) and Obstetrics and Gynaecology 35(20.7%) were in the majority. Registrars were in the majority in the responders (55%), senior registrars were 26% and consultants made up 18.9% of the respondents. The mean age of respondents was 36.90±6.68.

77% of the respondents frequently treated malignancies while 55% treated malignancies occasionally and 2.4 % had never treated malignancies. 99.4% felt patients should be informed about a diagnosis of cancer before treatment and 69.8% felt it was the responsibility of the managing consultant to disclose cancer diagnosis to patients while 30.2% felt senior

registrars should do so.78.1% felt they were capable of disclosing cancer diagnosis yet a majority (88.8%) felt they required further training on breaking of bad news to patients with a significant number of those who felt they required training on breaking of bad news were under 50 years of age p=0.012.Regarding actual practice,57.4% of the respondents said consultants occasionally delegated this duty to others while 22.5% stated that this was a frequent practice. Most

Table 1: Demographic characteristics of physicians

Characteristics	Frequency	Percent	Mean±Std.Dev
Age			
<30	10	5.9	37.0±6.9
30-39	117	69.2	
40-49	33	19.5	
	9	5.3	
Sex			
Male	132	78.1	
Female	36	21.3	
Missing	1	0.6	
Cadre			
Consultant	32	18.9	
Senior Registrar	44	26.0	
Registrar	93	55.0	
Specialty			
Surgery	37	21.9	
Obstetrics and Gynaecology	35	20.7	
Internal medicine	25	14.8	
Pediatrics	25	14.8	
Family medicine	11	6.5	
Ophthalmology	14	8.3	
ENT	9	5.3	
Orthopedic	8	4.7	
Heamatology	5	3.0	
Years of Practice			
≤5	42	24.9	8.9±**6.0**
6-10	92	54.4	
11-15	16	9.5	
16-20	8	4.7	
≥20	11	6.5	
Treatment of patients with malignancies			
Never	4	2.4	
Occasionally	90	53.3	
Frequently	75	44.4	

Table 2: Physicians Attitude towards disclosure of cancer diagnosis

Attitude	**f**	**%**
Do you feel patients diagnosed with cancer should be informed about their diagnosis		
Yes	168	99.4
No	1	0.6
if yes, when do you consider the ideal time to disclose the diagnosis		
Immediately after confirmation of diagnosis	112	66.3
Before commencement of treatment	6	3.6
Earliest opportunity before discharge	3	1.8
After histological confirmation	48	28.4
Under which condition will you not disclose the diagnosis to the patient		
Patient not in good state of mind	110	65.1
Patient has a mental impairment	59	34.9
Why do you think it is important to disclose the diagnosis to patient		
It is the right of the patient to know	135	79.9
To carry out the treatment under patients understanding	34	20.1
Who do you feel should inform the patient about the diagnosis		
Consultant	118	69.8
Senior Registrar	51	30.2
Do you feel capable of disclosing the diagnosis of cancer to your patient		
Yes	132	78.1
No	8	4.7
Not sure	29	17.2
Where is the ideal location you would discuss the diagnosis of cancer with your patient		
Bed side	35	20.7
Clinic appointment	134	79.3
Would you disclose the diagnosis to the family members first before disclosure to the patient		
Yes	20	11.8
No	149	88.2
What is your opinion about involving family members during the disclosure of a diagnosis of cancer		
Necessary	120	71.0
Not Necessary	49	29.0
Do you feel you require training in breaking bad news to your patients		
Yes	150	88.8
No	12	7.1
Not sure	7	4.1

Table 3: Physicians practice towards disclosure of cancer diagnosis

Statements on Practice	f	%
Who handles the disclosure of the diagnosis of cancer in your unit		
Consultant	131	77.5
Senior Registrar	38	22.5
In your experience, does the managing consultant delegate disclosure of cancer diagnosis to other persons		
Occasionally	97	57.4
Frequently	38	22.5
Never	15	8.9
Not sure	19	11.2
Have you ever treated a cancer patient before disclosure		
Yes	24	14.2
No	145	85.8
What preparations would you carry out before disclosure		
Know the facts	154	91.1
Ensure privacy	15	8.9
In your practice do you treat patients with malignancies		
Occasionally	92	54.4
Frequently	74	43.8
Never	3	1.8
On average how many patients with malignancies do you treat in a year		
none	32	18.9
1-10	89	52.7
11-20	27	16.0
21-30	8	4.7
31-40	7	4.1
>40	6	3.6
When you disclosed a diagnosis of cancer to a patient where was it done		
Bed side	96	56.8
Clinic appointment	73	43.2
Do you routinely check for your patients understanding after disclosure of cancer diagnosis		
Often	95	56.2
Occasionally	74	43.8

When ready to tell this patient about the diagnosis, how would you approach it		
Straight out with the diagnosis as it is	31	18.3
Fire a warning shot "i am afraid it looks rather serious"	138	81.7
Having disclosed the diagnosis, your patients is in denial and doesn't believe it's true. How would you handle this		
Insist on explaining the diagnosis	34	20.1
Let the patient control amount of information given	135	79.9
Having disclosed the diagnosis, what is the next step you will take		
Prepare for treatment	22	13.0
Allow the patient to mention her concern	147	87.0
The patient starts crying and becoming emotional, how would you handle this		
Ask patient to stop crying	5	3.0
Find a way to end the session	164	97.0
The counselling for disclosure of diagnosis has come to an end, would you routinely summarize the discussions		
Yes	109	64.5
No	18	10.7
Occasionally	42	24.9

DISCUSSION:

In this study, the demographic characteristics of the respondents are shown in Table 1, illustrate that over half of the respondents were clinicians in the surgical departments with registrars being the most numerous cadres of doctors. Most of the respondents had managed patients with cancer, 53.4% managed cancer patients occasional and 44.4% did so frequently.

99.4% of the study participants felt that patients should be informed about a diagnosis of cancer prior to commencement of treatment (Table 2). This conforms with correct practice as described in most protocols but the practice of disclosing cancer diagnosis at patient's bedsides by 56.8% of the respondents does not provide the level of privacy necessary for disclosure of cancer diagnosis.[8]

The design of wards in the hospital does not shield patient's from other admitted people or their caregivers and other doctors who may be attending to their own duties while not be directly involved with managing the cancer patient. Being a teaching hospital, quite often, medical students, nurses and residents may also be at the bedside of patients that require to get such information so bedside counselling is less than ideal. The challenge of office spaces in JUTH requires that physicians get more creative while discussing such sensitive information with their patients. 71% of the doctors surveyed felt it was necessary to involve family care givers when disclosing cancer diagnosis. This may be consistent with needs of individual patients who often require support during the illness surrounded by family members that not only serve as care givers but pay the hospital bills.

Regarding checking for a patient's understanding of the cancer diagnosis, 56.2% checked for understanding from the patient while 43.8% checked for understanding occasionally. (Table 3).

Other practices that were consistent with

recommended protocol in the study participants included 'firing warning shots" which are exploratory statements designed to prepare a patient for bad news that will follow;81.7% of the participants used this technique.79.9% also stated that they allowed the patient control the amount of information he/she wanted divulged during the counselling sessions,87% would allow patient's express their concerns after being informed of the diagnosis and 97% of respondents said they would allow patients express emotional responses like crying after hearing the diagnosis of cancer and 64.5% stated that they summarized the discussions at the end of disclosure of the diagnosis.

Inspite of most responses of the participants in the study being consistent with some level of good practice, 88.8% of the respondents felt they required training in breaking bad news to patients. A similar survey in the United States identified that less than 10% of oncology physicians attending an annual meeting of the American Society of Clinical Oncology (ASCO) had formal training in breaking of bad news and only 32% observed interviews where practical demonstrations of breaking bad news were done during their trainings.[8] The index study suggests that clinicians need additional training to make them comfortable in delivering the bad news of a cancer diagnosis. The fact that a significant number of clinicians that felt the need for further training were < 50years of age suggests that experienced clinicians are more comfortable with this responsibility, this may explain why only 22.5% of the respondents stated that in their experience, consultants, who are usually older clinicians delegate breaking bad news to other health personnel.

One of the few studies among patients suffering from cancer in University of Nigeria Teaching Hospital Enugu showed that while 95% of patients wished to know their diagnosis, but as much as 76.1% said their attending physicians did not provide information on the diagnosis of their ailments.[9] In contrast, another study in India among cancer patients and their care givers showed that the patients preferred full disclosure of the diagnosis and it's prognosis ,while the family care givers preferred non-disclosure of the same.[10] Most of the literature concerning disclosure practices in the literature are not centered on cancer diagnosis but explore surgeon -patient information on diseases generally but nonetheless, the findings from this study concur with findings by Ogundiran in Southwestern Nigeria that disclosure of information to patients concerning their diagnosis is suboptimal with respect to privacy and training on disclosure of information .[11]

Where physicians are uncomfortable bearing such bad news that include the poor prognosis of cancer, strategies for coping with their own distress when such news is disclosed can increase the physician's confidence.[12,13]It is a critical skill that needs capacity building by trained psychologists and palliative care specialists in Nigeria particularly because so many patients present at advanced stages of cancer. This finding is not peculiar to Nigeria with similar findings found in studies in the United Kingdom where physicians tend to underappreciate the need of the patient to have insight into the nature of ailments because they lack training in psychological aspects of cancer management.[14]

Conclusion: This study shows that attitude towards disclosure protocols for patients with a diagnosis of cancer in Jos University Teaching Hospital (JUTH) was good in most medical doctors, but privacy is not maintained optimally because more than half of disclosures occur at patient's bed sides. There is a self-assessed need for more training on disclosure of cancer diagnosis by doctors in JUTH.

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