RENAL HEALTH INDICES OF RESIDENTS OF OJA OBA COMMUNITY, OSOGBO LOCAL GOVERNMENT AREA, OSUN STATE, NIGERIA

Monisayo Olayemi KOMOLAFE

Correspondence address: *monisayokomolafe@gmail.com* *+2348037458603*

Abstract

Health indicators are summary measures that can, in a simple way, reveal a situation that is not very apparent when considered by itself. This health indicators include raised blood pressure, glycosuria and proteinuria which can give rough estimate of how well a community is doing as regarding renal health. This study assesses the renal health indices of residents of Oja Oba community in Osogbo local Government Area of Osun State. The target population consists of one hundred and fifty-two people. Participants consist of residents of Ataoja's palace, workers at the local government's office within the palace, civil servants and traders at the palace market. The instruments used for this study include Stadiometer and weight scale, mercury sphygmomanometer, universal bottles, recording sheets, biro pencil and urine multi-test strips and proforma for data entry. Data were entered into statistical package for social sciences version SPSS 18.0 with which descriptive analysis was done yielding frequency tables, mean, median, modes and standard deviation for continuous variables. The result of this study shows that majority (65.8%) of the participants have abnormal weight but 76% of participants had no sugar in their urine. This study also indicated that majority of the participants had proteinuria and are hypertensive. The result revealed that BMI is positively correlated to mean arterial blood pressure. We concluded that the renal health status of Oja-oba community in Osogbo, Osun State is poor. It is therefore recommended that Health indices evaluation done in this year's World Kidney Day should be made available to every individual above 40 years to detect any abnormality early and treat promptly.

Keywords: Health Indices, Body Mass Index, Blood Pressure, Obesity, Proteinuria

Introduction

Health indicators are quantifiable characteristics of a population which researchers use as supporting evidence for describing the health of a population. Health indicators are constructed to measure health status (i. e. the occurrence of a disease or other health-related event) or a factor associated with health (i. e. health status or other risk factor) among a specified population. (Pan American Health Organization 2001) 10% of the population worldwide is affected by chronic kidney disease (CKD), and millions die each year because they do not have access to affordable treatment. (www.worldkidneyday.org/faqs/-chronickidney-disease, 2015) According the 2010 Global Burden of Disease study, chronic kidney disease was ranked 27th in the list of causes of total number of deaths worldwide in 1990, but rose to 18th in 2010. This degree of movement up the list was second only to that for HIV and AIDs. (Jha,2013).

Over 2 million people worldwide currently receive treatment with dialysis or a kidney transplant to stay alive, yet this number may only represent 10% of people who actually need treatment to live. (Couser, 2011). Of the 2 million people who receive treatment for kidney failure, the majority are treated in only five countries – the United States, Japan, Germany, Brazil, and Italy. These five countries represent only 12% of the world population. Only 20% are treated in about 100 developing countries that make up over 50% of the world population. (Couser, 2011). More than 80% of all patients who receive treatment for kidney failure are in affluent countries with universal access to health care and large elderly populations and it is estimated that number of cases of kidney failure will increase disproportionately in developing countries, such as China and India, where the number of elderly people is increasing. (Jha, 2013) In middle-income countries, treatment with dialysis or kidney transplantation creates a huge financial burden for the majority of the people who need it. In another 112 countries, many people cannot afford treatment at all, resulting in the death of over 1 million people annually from untreated kidney failure. (Couser, 2011).

Treatment of chronic kidney disease is likely to exceed $48 billion per year in the US. Treatment for kidney failure consumes 6.7% of the total Medicare budget to care for less than 1% of the covered population, while in China, the economy will lose US$558 billion over the next decade due to effects on death and disability attributable to heart disease and kidney disease. (www.worldkidney-day.org/faqs/chronic-kidney-disease, 2015) The annual cost of dialysis in Uruguay, is close to $ US 23 million, representing 30% of the budget of the National Resources Fund for specialized therapies. (www.worldkidneyday.org/faqs/-chronic-kidney-disease,2015) A recent report publication by NHS

Kidney Care in England, revealed that chronic kidney disease costs more than breast, lung, colon and skin cancer combined treatment for all current and new cases of kidney failure through 2020 will cost an estimated billion. $12 (www.world-kidneyday.org/faqs/chronic-kidney-disease, 2015)

In people aged 65 through 74 worldwide, it is estimated that one in five men, and one in four women, have CKD. (www.worldkidneyday.org/faqs/chronic-kidney-disease,2015) Noncommunicable diseases (such as heart disease, diabetes, or kidney disease) have replaced communicable diseases (such as influence, malaria, or AIDs) as the most common causes of premature death worldwide. An estimated 80% of this burden occurs in low- or middle-income countries, and 25% is in people younger than 60 years. (Couser, 2011).

Chronic kidney disease is a worldwide health crisis. For example, in the year 2005, there were approximately 58 million deaths worldwide, with 35 million attributed to chronic disease, according to the World Health Organization. (Levey,2007) Chronic kidney disease can be treated. With early diagnosis and treatment, it's possible to slow or stop the progression of kidney disease. Chukwuonye et al., (2018) described the two major leading causes of Chronic kidney diseases worldwide and Nigeria inclusive as Hypertension and Diabetes Mellitus, though infections in form of non-communicable diseases may also play major role in developing countries. In a research carried out by Olanrewaju, (2020) on the Prevalence of chronic kidney disease and risk factors in North-Central Nigeria: a population-based survey studied 8 urban communities in Kwara State, North-Central zone of Nigeria discovered that the age-adjusted prevalence of hypertension was 24%; diabetes 4%; obesity 8.7%; albuminuria of > 30 mg/L 7%; and dipstick proteinuria 13%. The age-adjusted prevalence of CKD by estimated GFR < 60 ml/min/1.73m^2 and/or Proteinuria was 12%. Diabetes (aOR 6.41, 95%CI = 3.50–11.73, *P* = 0.001), obesity (aOR 1.50, 95%CI = 1.10–2.05, *P* = 0.011), proteinuria (aOR 2.07, 95%CI = 1.05–4.08, *P* = 0.035); female sex (aOR 1.67, 95%CI = 1.47–1.89, *P* = 0.001); and age (aOR 1.89, 95%CI = 1.13–3.17, *P* = 0.015) were the identified predictors of CKD. The study concluded that CKD and its risk factors are prevalent among middle-aged urban populations in North-Central Nigeria. It is common among women, fueled by diabetes, ageing, obesity, and albuminuria.

Chronic kidney disease (CKD) is a global public health problem, with a greater burden and prohibitive cost of care particularly in developing countries. Afolabi, (2009) studied the prevalence of chronic kidney disease and identified its associated risk factors in patients attending the Family Practice Clinic, Wesley Guild Hospital, Ilesa, Nigeria. This study observed that one hundred and thirteen of the 250 subjects (45.2%) were found to have pathologic albuminuria at the initial screening, while 31 (12.4%) had persistent albuminuria three months later. Also, 51 subjects (20.4%) had estimated low GFR at the initial screening and 26 (10.4%) had persistent low GFR three months later. Significant risk factors for CKD in the study subjects were increasing age, elevated blood pressure, history of diabetes mellitus (DM), habitual intake of analgesics and herbs, and an abnormal waist to hip ratio ($p < 0.05$). The association between persistent abnormal ACR and low GFR did not reach statistical significance ($p = 0.053$). Habitual analgesic intake ($p = 0.002$) and age group ($p = 0.0027$) were true predictors of CKD among the study subjects. The study therefore concluded that prevalence of CKD in the study population was high and its association with modifiable risk factors was demonstrated.

Family physicians have a unique opportunity to identify and address these factors in their patients. Routine screening for CKD in family practice clinics is indicated to reduce the burden of renal disease in the population. Therefore, considering the cost and affordability of renal RRT is one of the major aims of this study which focuses on the primary prevention of CKD by carrying out distinct investigations that can point to early detection of renal insufficiency. It therefore follows that if the renal health of a community is to be assessed, aside determining members of the community who already have developed chronic kidney damage at any of its five stages, the health indices include looking out for members of the community with Hypertension, glycosuria, proteinuria and nitrites in the urine which will in turn show percentage of the community who are at risk of eventually developing renal disease if preventive care and control is not instituted. This study therefore set out to assess the renal health indices of a community.

Specific Objectives

1. To determine the body mass index of participants
2. To assess the presence of sugar, protein level and the pH of urine of research participants
3. Determine the blood pressure of all research participants
4. To determine if BMI is positively correlated to the development of hypertension
5. To determine if there is a significant association between age and hypertension

Research Questions

1. What is the body mass index of participants?
2. What is the sugar level, protein level and the pH of urine of research participants?
3. What is the blood pressure level of all research participants?
4. Will the BMI be positively correlated to the development of hypertension
5. Will there be a significant association between age and hypertension

Methodology

A cross sectional research design was adopted. This study was carried out at Oja Oba, (former Oba's palace), within yards of the Osogbo Grand Mosque. (https://en.wikipedia.org/wiki/Osogbo). The Renal unit had earlier sought the permission of the Ataoja (King of Osogbo land) to conduct renal health talk and perform basic renal health indices tests for residents & traders in and around Oja-oba (King's market) inside the premises of the King's palace. A health promotion team went round the Oja-oba community and environ on March 7,2019, invited them for free health talk and tests at the premises of the King's palace. Renal health handbills were distributed freely. One hundred and fifty-two people participated. The free medical screening included Blood Pressure measurement in mmHg, Weight in kg, height in cm, BMI in kg/m^2, urinalysis for sugar, protein determination and pH of the urine of participants. Socio demographic data documented included age, sex and occupation of participants.

Population consists of one hundred and fifty-two people. Participants consist of residents of Ataoja's palace, workers at the local government's office within the palace, civil servants and traders at the palace market. om sampling was used to select one hundred and fifty-two participants. The proforma form is divided into two section. Section A is the sociodemographic data which consist of the Initials, age, sex, occupation, department and phone number while the section B is the variables of interest which are Blood pressure, weight in kg, height in cm, BMI, urinalysis, protein, sugar, PH. Participants with body mass index (in kg/M^2) of less than 18 were grouped as underweight, between 18 and 24.9 as normal weight, those with BMI 25 to 29.9 as overweight and those with BMI of 30-34.9 as obese while 35 or more as morbid obesity.(Elizabeth, 2018). Those whose blood pressure is less than 90/60mmHG are said to have low blood pressure, while those with systolic BP between 90mmHg -120mmHg and diastolic BP between 60 mmHg -80 mmHg are said to have ideal blood pressure. Those with systolic BP between 120mmHg – 140mmHg and diastolic BP between 80 mmHg -90mmHG are said to have pre-high blood pressure and systolic BP 140 mmHg or more, diastolic BP of 90 mmHg or more are considered as having high blood pressure. Hypertension is also defined in this study as mean arterial pressure of 107 mmHg or more using blood pressure of 140/90mmHg. Mean arterial pressure is considered as perfusion pressure seen by the organs of the body and is estimated by adding double diastolic pressure to systolic pressure and finding a third of the sum (Bonsall, 2011).

All participants filled in a questionnaire about demographic characteristics and medical history, and were physically examined. We measured blood pressure by mercury sphygmomanometer with standard cuff (25cmx12cm), on the right arm with participants in sitting position after 5 min rest. Two measurements were taken and the average was recorded. The weight was measured with a Seca weighing scale placed on a flat, hard surface with the participants wearing light clothing. The height was measured by a stadiometer with the participants standing without shoes. We calculated body mass index (BMI) by weight (kg)/height (m^2). We performed dipstick test onsite for sugar, proteinuria and PH of the urine. Participants were given sterilized plain universal bottles to collect 10 mL of mid-stream urine. The urine was examined physically and tested with reagent strips (**Accu-Answer uric 3V**). Sugar, proteinuria and PH were read within the time indicated by the manufacturer. Reliability. This was ensured by carrying out a pretest on 10 respondents from Oke-fia community Osogbo to exclude vague item and ambiguity before final administration to respondents. A ballot was wrapped which contain ten@ to-be-included' and another ten 'not-to-participate'. These are not part of the sample size. Test re test of the instrument was done and the result of the pilot study on analysis yielded a Cronbach alpha score of 0.75, which shows a true reliability index.

Consent was obtained, participants blood pressure was measured by mercury sphygmomanometer with standard cuff (25cmx12cm), on the right arm with participants in sitting position after 5 min rest. Two measurements were taken and the average was recorded. The weight was measured with a Seca weighing scale placed on a flat, hard surface with the participants wearing light clothing. The height was measured by a stadiometer with the participants standing without shoes. We calculated body mass index (BMI) by weight (kg)/height (m^2). Dipstick test onsite for sugar, proteinuria and PH of the urine was also performed. Participants were given sterilized plain universal bottles to collect 10 mL of mid-stream urine. The urine was examined physically and tested

with reagent strips (**Accu-Answer uric 3V**). Sugar, proteinuria and PH were read within the time indicated by the manufacturer.

Result

Table 1 shows that (60) 39.5% of participants were male and (91)59.8% female. (59) 38.8% are within the age range of 20-39, while (71) 46.7% are within the age range of 40 -59 and (19)12.5% are with the age range of 60-79 years. Findings revealed that (42)27.5% of participants were traders, (26) 17.1% are civil servants, (10) 6.6% are palace admin staff, (9) 5.9% are local govt staff, (5) 3.3% are health workers, (3) 2.0% bankers, (3) 2.0% judiciary staff, (2) 1.3% entrepreneur, (44) 29% retiree. This study therefore indicated that majority of the participants are females within the age range of 40 to 59 years and their occupations are traders, civil servants and retirees.

Table 1: Socio-Demographic Data of Participants

Parameters		N	%
Sex:	Male	60	39.5
	Female	91	59.8
	Missing	1	0.7
Total		**152**	**100**
Age:	20 – 39	59	38.8
	40 - 59	71	46.7
	60 - 79	19	12.5
	Missing	3	2.0
Total		**343**	**100**
Occupation:	Trader	42	27.5
	Civil Servants (State Worker)	26	17.1
	Palace Admin Staff	10	6.6
	Local Govt Staff	9	5.9
	Health Worker	8	5.3
	Banker	5	3.3
	Judiciary Staff	3	2.0
	Entrepreneur	3	2.0
	Retiree	2	1.3
	Missing	44	29.0
Total		**152**	**100**

Research Question One

What is the body mass index of participants?

Table 2 observed that 2 (1%) of participants are underweight, 49 (34.3%) were normal, while 47 (32.9%) are overweight and 55 (38.5%) are obese. In this study majority of participants (71.4%) had BMI above 25 kg/M^2.

Table 2: Body Mass Index of Participants

Body Mass Index	N	%	Weight Status
17 -18	2	1.4	Underweight
18.5 -24.9	49	34.3	Normal.
25.0 -29.9	47	32.9	Overweight.
30.0 and above	55	38.5	Obese.
Total	**153**		.

Research Question Two

What is the sugar, protein level and the pH of urine of participants?

Table 3 shows that (116) 76% of participants had no sugar in their urine, (1) 0.7% has glycosuria (+), while another (2)1.3% has glycosuria (++++) and (28)18.5% has trace of glycosuria. This study indicates that majority of the participants had no sugar in their urine. Also, Table 3 reveals that (55) 36.2% of the participants had no proteinuria, while (50)32.9% had proteinuria (+), (14)9.2% had significant proteinuria (++). Report also showed that 2% having severe proteinuria (+++) and 18% had trace of proteinuria. This study indicated that majority of the participants had proteinuria (62%). Similarly, Table 3 showed that (18) 11.8% of respondents are having pH of 5.0, while (99) 65.1% has pH of 6.0 and (10) 6.6% has pH of 6.5. Further findings revealed that (5) 3.3% has a pH of 7.0 while (10) 6.6% has a pH of 7.5 and (6) 3.9% has a pH of 8.0. This study therefore shows that all respondents are within the normal range of pH although majority of respondents' Ph is 6.0.

Table 3: Result of Urinalysis

	Frequency	Percent
Sugar		
Missing Value	5	3.3
No Sugar	116	76.3
One Plus	1	.7
"Four Plus"	2	1.3
Trace	28	18.5
Total	**152**	**100**
Urinary Protein		
Missing Value	3	2
No Protein	55	36.2
One Plus	50	32.9
Two Plus	14	9.2
Three Plus	3	2.0
Trace	27	17.8
Total	152	100.0
pH Of Urine		
5.0	18	11.8
6.0	99	65.1
6.5	10	6.6
7.0	5	3.3
7.5	10	6.6
8.0	6	3.9
Missing	4	2.7
Total	**152**	**100.0**

Table 4 report that (50)35% of the participants has a systolic blood pressure less than 120mm Hg, (30)21% has a systolic blood pressure of 120 – 129mm Hg, while (19)13.3% of the participants has a systolic blood pressure of 130 – 139mm Hg. Result shows that (46)32% of the participants has a systolic blood pressure of 140 – 180 mm Hg and (8)5.6% of the participants has a systolic blood pressure of over 180mm Hg. This study conclude that majority of the participants are hypertensive (103) 72%. Table 4 also observed that (70) 49% of the participants has a diastolic blood pressure of ≥80mm Hg and (11) 7.7% of the participants has a diastolic blood pressure of 80mm Hg. Study reveals that (24)16.8% of the participants has a diastolic blood pressure of 80 -89 mmHg, while (39) 27.3% of the participants has a diastolic blood pressure of 90mm Hg and (3) 2.1% of the participants has a diastolic blood pressure of ≤120 mm Hg. This study implies that majority of the of the participants are Hypertensive

Table 4: Blood Pressure of Participants

Systolic BP		Frequency	Percent	Status
140 - 180	≥120	50	35	Normal
	120 – 129	30	21	Elevated Systolic.
	130 – 139	19	13.3	Stage 1 Hypertension
		46	32.2	Stage 11 Hypertension
	≤180	8	5.6	Hypertensive Crises.
Diastolic BP				
≥80		70	49	Normal
80		11	7.7	Elevated Diastolic
80 – 89		24	16.8	Stage 1 hypertension
90		39	27.3	Stage 11 Hypertension
≤120		3	2.1	Hypertensive Crises.

Table 5 showed that majority (72%) of the participants had abnormal Body Mass Index. Study reveals that majority (72%) of the participants has no sugar in urine and normal P^H. Majority of the participants has protein in their urine, abnormal systolic and diastolic pressure. This study observed that four out of the six renal indices tested are abnormal, thus conclude that the renal health status of Oja-oba community in Osogbo, Osun State is poor

Table 5: Outcome of all Tests Performed in Oja Oba Community Osogbo

	Variables	Frequency	Percentage	Interpretation
1	Body Mass Index	104	72	Abnormal*
		49	34.3	Normal
2	Urine Sugar	116	76.3	Normal*
		31	20.5	Abnormal
3	Urinary Protein	55	36.2	Normal
		94	52	Abnormal*
4	pH of Urine	99	65.1	Normal*
		21	16.5	Abnormal
5	Systolic BP	50	35	Normal
		103	72.1	Abnormal*
6	Diastolic BP	74	51.8	Normal
		77	53.9	Abnormal*

Key

Abnormal results that are significant =4	Normal
Normal results that are significant= 2	BMI =18.5 -24.; Glucose in Urine = 0 -0.8
Albumin in urine = less than 30mg/g;	pH = 4.5 -8.0; Systolic = 90 – 120; Diastolic = **80**

Table 6 shows that BMI is positively correlated to development of hypertension with 35.55 of obese participants and 28.89% of overweight patients having hypertension compared to only 17.39% of participants with normal BMI developing hypertension. This association is statistically significant $X^2 = 41.869$, p =0.000

Table 6. Cross tabulation of BMI Versus Mean Arterial Blood Pressure

S/No	BMI	Mean Arterial Bp <107mmhg	Mean Arterial Bp≥107 mhg	Total 152	Statistics
1.	Underweight	2	0	2	X^2= 41.896
2.	Normal Weight	38	8	46	
3.	Overweight	32	13	45	P = 0.000
4.	Obese	36	19	55	
5.	Missing Value	3	1	4	

Age is also directly proportional to the risk of developing hypertension with 32.39% of participants aged 40 to 59 and 42.11% of those aged 60 to 79 developing hypertensions compared to 15.25% hypertensive among participants aged 20 to 39 years. This association is statistically significant $X^2 = 57.755$, p =0.000. The null hypothesis is rejection and alternate hypothesis accepted which state that there is a significant association between age and hypertension

Table 7. Cross Tabulation of Age Versus Mean Arterial Blood Pressure

S/No	Age Groupings In Years	Mean Arterial Bp <107mmhg	Mean Arterial Bp≥ 107 Mmhg	% Hypertensive	Total 152	Statistics
1.	20 -39	50	9	15.3	59	X^2= 57.755
2.	40 – 59	48	23	32.4	71	
3.	60 – 79	11	8	42.1	19	P = 0.000
4.	Missing Value	2	1	33.3	3	

Discussion of Results

This study examines the renal indices of Oja Oba community in Osogbo, Osun State. The demographic characteristics of this study revealed that majority of the participants are females within the age range of 40 to 59 years and their occupation including trading, civil servants and retirees. This study observed that majority of the participants have abnormal weight increase with BMI above 25 kg/M^2. This study is similar to the findings of Komolafe (2019) who reported the prevalence of obesity and overweight among staff of LAUTECH Teaching Hospital Osogbo. This study is in contrast to Umuerri et al (2017) who found in their study that there is low prevalence of abnormal weight (31.8%) among rural (Jesse) and urban (Warri) dwellers of Delta State in Nigeria.

This study indicates that majority of the participants had no sugar in their urine. Thus, the result of this health indices is normal. This is similar to the study of Okoye et al (2011) who found that only 8.7% of the participants had glycosuria in a rural community and Egbi et al (2014) who indicated that 5.0% of their participants had glycosuria t in the rural community. This study revealed that majority of the participants had proteinuria which is an abnormal health indices. Proteinuria could be an early pointer to asymptomatic kidney diseases and its persistence could mean progression of kidney diseases. This study agrees with Wachukwu et al (2015) who found in their study that the prevalence of proteinuria is higher (12.4%) among University community residents in Port Harcourt and Nalado et al (2012) who revealed that proteinuria is found among civil servants of Kano (19.4%). This study also supports Okwonu et al (2017) and Egbi et al (2014) who showed that their participants may have reduced kidney function because the participants had a ratio of 1 to 1.4 of proteinuria, which implies 1+ or urine protein creatinine ratio of ≥200mg/g. Okwonu et al also showed that majority of their participants had chronic kidney disease because the estimated glomerular filtration rate (eGFR) of <60mls/1.73M^2. These same participants had persistent reduced eGFR after 3months of re-evaluation which fell from 13.4% to 4.6% showing that 21.2% of the participants may have persistent reduced kidney functions. The writer also perceived those Risky behaviours (abuse of analgesics and local herbal concoction) of the participants may cause damage to renal system. She further believed that the traders

who think they may use over the counter analgesics more often than none non-steroidal anti-inflammatory drugs for help their bodies cope with day to day demands of market activities and often also do not know the implication of using local herb concoctions being hawked freely to care for uncountable illnesses. This study is consistent with Oluyombo et al (2011) who reported that their participants have high rate of proteinuria, close to 18.8% in a rural community in Osun state.

This study observed that all respondents are within the normal range of pH although majority of respondents' pH is 6.0. This study is similar to Alberto, Sebastian and Cecilia (2017) who studied 556 patients and 96.6% had normal pH value of 4.8 to 7.4. There is no other known study on PH of urine but Michael and Wanda (2020) explained that normal urine pH is slightly acidic, with usual values of 6.0 to 7.5.

This study conclude that majority of the participants are hypertensive. The writer portends that one out of every four residents of Oja-oba could develop renal disease in the nearest future if the hypertensive state is not properly managed. This study is consistent with Adeloye et al (2015) who discussed that there is prevalence of hypertension among Nigerians. The study is similar to Ajayi et al (2015) who reported the prevalence of hypertension among residents of Ibadan North Local government area. This is also in agreement with Alexander et al (2019) who confirmed that the prevalence of hypertension in the world is high. Lastly, Nalado et al (1012) and Egbi et al (2014) reported that the incidence of hypertension and glycosuria are ahead of diabetes in Nigeria

The result of this study indicated that the renal health status of Oja-oba community in Osogbo, Osun State is poor; this is because out of six tests carried out on participants, only two are normal. i.e., no sugar in urine and PH normal. The remaining four were abnormal. The Body Mass Index is high, there is protein in their urine, abnormal systolic and diastolic pressure were observed. Thus, the result of these health indices is abnormal, this study is consistent with Awobusuyi, (2011) who revealed that respondents in the studied community has abnormal indices of renal damage 0.79 (95% CI, 0.51, 1.24) P>.05 and elevated blood pressure.

This study observed that BMI is positively correlated to mean arterial blood pressure. This study correlate with Komolafe, (2019), Suman et al (2014) and Trevor et al (2018) who found age and body mass index was to be statistically associated with hypertension, which is a well-known fact.

Age and body mass index was found to be statistically associated in direct proportion relationship to developing hypertension. This is a well-known fact. (Komolafe,2019, Suman et al., 2014 and Trevor et al., 2018). Even though one may not be able to do anything about ageing but individuals can influence significantly tendency to abnormal BMI. This study report that age is significantly associated with mean arterial blood pressure. This study is in agreement with Komolafe (2019), Suman et al (2014) and Trevor et al (2018) who observed that age of individuals is significantly associated to hypertension.

Conclusion and Recommendation

Renal health indices of Ojaoba community of Osogbo Local government are in the red with high prevalence of proteinuria, hypertension and inferred renal damage. Urgent need to institutionalize annual basic screening for adults over 40years with follows up of those with abnormal blood pressure, proteinuria and glycosuria. It was recommended that, health indices evaluation done in this year's World Kidney Day should be made available to every individual above 40 years to detect any abnormality early and treat promptly. Blood pressure and test of urine for protein and glucose should be done yearly for adults over 40years; those with abnormal readings are encouraged to do further test to evaluate estimated GFR and fasting blood sugar. Those with abnormal eGFR and proteinuria should be reevaluated after 3 months to know if the abnormalities are persistent and appropriate referrals done; continuous and aggressive health education should be given on all available social media to reach as much as possible and our campaign should focus on prevention. Provision should be made to reach people at the grass root and be properly educated against bad health habits. Posters and hand bills should be placed strategic places to keep people informed on good health habits; health services must be made available, affordable and accessible to everyone at no cost as a Nationality of this country especially increasing the coverage of National health insurance service so that more people can have access to basic health screening inclusive of renal health screening

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