Research Article

EVALUATION OF SELF-CARE PRACTICE AMONG DIABETIC PATIENTS IN A HOSPITAL IN BAYELSA STATE, NIGERIA

Owonaro Agala Peter Anthony[1], Timothy Gilbert[2] and Awala Daughter Owonaro[3]

[1]Department of Clinical Pharmacy and Pharmacy Practice, Faculty of Pharmacy, Niger Delta University, Wilberforce Island, Amassoma, Bayelsa state, Nigeria

[2]Department of Pharmacy Technician Studies, School of Allied Medical Sciences, College of Health Technology, Otuogidi, Ogbia Town, Bayelsa State, Nigeria

[3]Department of Family Medicine, Faculty of Clinical Sciences. Niger Delta University, Wilberforce Island, Amassoma, Bayelsa state, Nigeri.

Abstract

The improvements in the management of diabetes mellitus have been reported by several health articles. However, their health status as it relates to physical, mental, and social status remains a challenge. Self-care in diabetes is a process where the person attempts to use a variety of practical approaches, which are effective for his/ her lifestyletextualextual situation, and takes the necessary action to protect their, health, and well-being. Hence, some resolved to manage the disease on their own. The study aimed to investigate which tent of self-care practicing diabetes patients in Diete-Koki Memortakespital, Yenagoa, Bayelsa State. A descriptive cross-sectional study was carried out to manage this. A total of 300 diabetic patients aged 20 to 80 years in Diete-Koki Memorial Hospital, Yenagoa, Bayelsa State, from March 2022 to May 2022, using the Direct Diabetes Self-care Scale (DDSS). Above onone-third45.29%) reported a self-care rating asof.4529 in the study. Modal patients' characteristics were that most of them had type 2 DM (72%) male patients (62%), aged 41 to 60 (62%), who had known their status and had been on diabetes medications for at least four years (24%). Participants' socio-demographic profile shows employed (45%), married (69%), urban residents (83%), with post-secondary education (48%), and earned below 30,0 as monthly screens (33%). Also, a BMI of 18.5 to 24.9 (50%), with high BP as the modal co-morbidity (89%) was reported as a major fafactorhat dedeterminesattern of self-care among diabetes patients in Bayelsa State. Furthermore, 67% and 43% of respondents reported having ever smoked or used alcohol, respectively. Gender, age, marital status, place of residence, education, occupation, income level, BMI, alcohol consumption, treatment duration, and comorbidities are reported as determining factors of diabetic self-care in the region. The study recommended the need for further education on diabetes management with self-care management as an integral part of self-care. Using the chi-square test showed that there was no statistically significant association between wibetweenemographic characteristics with self-care.

Introduction

Diabetes is one of the world's biggest health problems. About 4.6% of the world population was reported to suffer from diabetes in 2010, and a predicted 7.7% by 2030 [1]. The improvement in treatment for diabetes is considered a major reason for the reduction in morbidity and mortality. Recently, there has been an increase in this epidemic disease, partly due to urbanization which etary lifestyle, cult changes, lack of controlled prepared nest akeetal obstacles such as poor education and illiteracy, lower socioeconomic status, and management health care facilities [2]. Unhealthy practices and perceptions of diabetic patients have also been reported to fuel the increase in the negative effect of the disease and complications which are preventable. Health complications such as nephropathy and retinopathy and neuropathy can set in to affect the quality of life of the patients and their productivity. Decreased life value, physical limitations, and high medical costs are common attributes of this disease, especially in low-income countries [3].

The first step of care in diabetes, according to the WHO, is modification of lifestyle and diet. Good adherence to tenets of the above two approaches has been reported to delay or even in some instances, alter the progression of diabetes [4]. It has also been severally reported that failure or inadequate adherence to lifestyle and diet controls can eventually lead to the final deterministic development of diabetes [4]. Diabetes management includes the use of oral or injectable antidiabetic drugs and adjunct therapy attending to comorbidities and complications. This is in addition to lifestyle modification and good dieting [5]. Adherence to lifestyle and diet control are the main focus of the concept of self-care. Self-care in diabetes is a process where the person attempts to use a variety of practical ap-

proaches, which are effective for his/her lifestyle and contextual situation and takes the necessary action to protect their life, health, and well-being. Self-care activities in patients with diabetes mellitus are behaviors undertaken by people with or at risk of diabetes to successfully manage the disease on their own. Self-care is considered crucial for all people with diabetes for monitoring the disease process, prevention of complications, and glycemic control which improved quality of life [6]. For better control of their ailment, patients with diabetes need to adopt self-care activities such as an appropriate diet, regular exercise, control of blood glucose, and appropriate use of medication [7].

Despite great strides that have been made in the treatment of diabetes in recent years, many patients do not achieve optimal outcomes and still experience devastating complications due to inadequate self-care practice [7]. Previous studies have shown that clinical complications of diabetes are the most important causes of morbidity and mortality and have a considerable effect on the patient's quality of life and productivity [8]. Approximately, half a billion people live with diabetes, and almost 80% of the diabetes burden was shared by low- and middle-income countries which Nigeria is not exceptional. Therefore, this study will evaluate the self-care practice and the improvement of the quality of life of diabetic patients in Diete Koko Memorial Hospital, Bayelsa State.

METHOD
Design/population
A descriptive cross-sectional study was designed to assess the self-care practices of three hundred (300) diabetic patients between the age of 20 to 80 years. These patients had been attending the outpatient department (OPD) in Diete Koko Memorial Hospital, Bayelsa State, from March 2022 to May 2022.

Instrumentation/Reliability
The research instrument for this study was a predefined questionnaire, called Direct Diabetes Self-care Scale (DDSS). It consisted of 28 self-care questions spread across nine (9) diabetes self-care domains. The DDSS instrument has been previously pre-tested in a similar healthcare study by

Anthony, (2022) with an acceptable reliability score of Cronbach's alphas of 0.78. The response pattern of the instrument is 5-point labeled as never, rarely, sometimes, often, and always, with ascending valuing of 0.0, 0.25, 0.50, 0.75, and 1.0. In this instrument, the best option of each row is expected to give 1.0 as proof of recommended performance of each item of self-care.

Data Collection and Data Analysis
After ethical consideration and approval from the ethics committee in the hospital. Participants fill out the study instrument and were retrieved immediately. The data from the DDSS were analyzed as prescribed by Anthony, (2022). The Likert scale used is presented below.
- Rating the response forms of never, rarely, sometimes, often, and always as1.0, 0.25, 0.50, 0.75, and 1.0 respectively
- Calculating and, summing up individual scores and using the mean value as a self-care factor for all respondents.
- The self-care score from the instrument is aimed to be reported from 0.0 (worst self-care) to 1.0 (best self-care).
- Direct conversion of the self-care score or factor to percentage may also give a simple interpretation.

RESULTS
Sociodemographic characteristics of diabetic patients in Bayelsa State
About two-thirds (62%) of respondents were between the age of 41 to 60 years. Of the males 83% reside in urban areas, 69% were married, and 48% with post-secondary education. About half (45%) of the participants were employed and 33% were earning below 300,000 monthly salaries. Half (50%) of the participants reported a BMI of 18.5 and 24.9. Notably, 67% and 43% of them reported having never smoked or taken alcohol. The majority (72%) of the respondents were diagnosed with type 2 diabetes mellitus with 24% of them knows their status for four years ago. Meanwhile, 89% of the respondents were also reported to have high blood pressure as a co-morbidity. See Table 1 for details.

Table 1: Sociodemographic characteristics of diabetic patients in Bayelsa state (N=300)

Item	Frequency		Percentage
Age in years	20-40	54	(187%)
	41-60	186	(627%)
	above 61	60	(207%)
Gender	Male	186	(627%)
	Female	114	(387%)
Residence	Urban	249	(837%)
	Rural	51	(177%)
Marital status	Single	93	(317%)
	Married	207	(697%)
Education	FSLC	72	(247%)
	SSLC	75	(257%)
	ND/HND/BSC	144	(487%)
	MSC/PHD	9	(37%)
Employment	Unemployed	69	(237%)
	Self-employed	96	(327%)
	Employed	135	(457%)
Occupation	Civil	57	(197%)
	Farming	60	(207%)
	Military	45	(157%)
	Others	138	(467%)

Income	below 30k		99		(337%)					
	60-90k		75		(257%)					
	91-120k		54		(187%)					
	121-180k		39		(137%)					
	above 181k		33		(117%)					
BMI	<18.5		21		(77%)					
	18.5-24.9		150		(507%)					
	25.0-29.9		60		(207%)					
	>30.0		69		(237%)					
Freq. of smoking	Never		201		(677%)					
	Formerly		36		(127%)					
	Occasionally		57		(197%)					
	Daily		6		(27%)					
Alcohol intake	Never		129		(437%)					
	Formerly		114		(387%)					
	Occasionally		51		(177%)					
	Daily		6		(27%)					
Diabetes type	type1		51		(177%)					
	type2		216		(727%)					
	Gestational		24		(87%)					
	Others		9		(37%)					
Time of diagnosis	a year ago		57		(197%)					
	2-3 years ago		48		(167%)					
	3-4 years ago		72		(247%)					
	4-5 years ago		36		(127%)					
	> 5 years ago		87		(297%)					
Co-morbidities	high BP		267		(897%)					
	Obesity		6		(27%)					
	Dyslipidemia		6		(27%)					
	Others		21		(7%)					

The self-care practice of diabetes patients in Bayelsa State

About forty-five percent (45.29%) of diabetic patients' self-care rating was 0.4529. This is shown in Table 2 below.

Table 2: Self-care practice of diabetes patients in Bayelsa state

S/N	Item	Response analysis										
		Never*0		Rarely*0.25		Sometimes*0.50		0ften*0.75		Always*1		SELF CARE
1	I keep a record of daily food consumption	31	0	25	6.25	21	10.5	13	9.75	9	9	
2	I do not eat fried food, food containing red meat, etc.	46	0	17	4.25	16	8	15	11.25	5	5	
3	I eat food that is grilled, steamed, poached, and or boiled	19	0	17	4.25	14	7	7	5.25	42	42	
4	Half of my meals always contain fiber-rich food (e.g. vegetables)	16	0	19	4.75	25	12.5	10	7.5	29	29	
5	I eat a limited amount of carbohydrate	18	0	22	5.5	28	14	20	15	11	11	

#	Statement											
6	I take less saturated fat, chocolate, jam, honey, and other sweet	25	0	33	8.25	17	8.5	15	11.25	9	9	
7	I do not take tinned food that contains extra salt	21	0	28	7	24	12	8	6	18	18	
8	I eat fruits in moderation.	16	0	12	3	13	6.5	21	15.75	37	37	
9	I take my medications (insulin, oral drugs, etc.) as prescribed	16	0	15	3.75	26	13	11	8.25	31	31	
10	I do physical activities like jogging, for at least an hour daily	31	0	13	3.25	21	10.5	18	13.5	16	16	
11	I check my blood sugar as regularly as the health worker advises	14	0	24	6	19	9.5	21	15.75	21	21	
12	I check my temperature four times a day when sick	8	0	47	11.8	17	8.5	18	13.5	9	9	
13	I brush my teeth every day after breakfast and before going to bed	29	0	9	2.25	8	4	21	15.75	32	32	
14	I avoid taking betel nut and tobacco	31	0	29	7.25	9	4.5	19	14.25	11	11	
15	I go for dental checkups every six months	44	0	16	4	17	8.5	16	12	6	6	
16	I inspect my feet daily for the presence of cracks, cuts, blisters, and callosity	12	0	48	12	16	8	13	9.75	10	10	
17	I always cut my toenails short	17	0	17	4.25	13	6.5	21	15.75	31	31	
18	I wear fitted shoes and socks at all times	35	0	25	6.25	7	3.5	12	9	20	20	
19	I do feet examination by a health worker at least four times a year	17	0	15	3.75	29	14.5	11	8.25	27	27	
20	I decrease the amount of food that I generally eat.	21	0	8	2	40	20	18	13.5	12	12	
21	I do avoid a crash diet	10	0	27	6.75	27	13.5	12	9	23	23	
22	I keep my body and environment clean and healthy	14	0	15	3.75	11	5.5	13	9.75	46	46	
23	I do not stop diabetes treatment without consulting the health worker	32	0	13	3.25	18	9	12	9	24	24	
23	I check my blood pressure at every opportunity	11	0	29	7.25	10	5	23	17.25	26	26	
24	I check my cholesterol and triglyceride levels at least once a year	18	0	34	8.5	20	10	12	9	15	15	
25	I do annual eye examinations done by an eye physician.	39	0	19	4.75	17	8.5	16	12	8	8	
26	I test for neuropathy once every year.	23	0	43	10.8	14	7	11	8.25	8	8	
27	I treat bladder or kidney infections without delay	54	0	17	4.25	12	6	11	8.25	5	5	
28	Total factored responses				159		255		313.5		541	1268
	Self-care factor				0.06		0.09		0.112		0.19	0.453
	Percentage self-care				5.68	0	9.09	0	11.196	0	19.3	45.286

Effect of sociodemographic factors on self-care practice in Bayelsa State

Table 3 and Table 4 reveal different degrees of the significant contribution of sociodemographic characteristics of self-care practices of diabetic patients in Bayelsa State. Using Chi Squire showed no statistically significant difference between socio-demographic characteristics and self-care. (P = 009) All the sociodemographic characteristics included in this study proved to be determining factors of self-care practice in the region. The characteristics of participants that had comparatively higher self-care ratings were male participants between the age of 41 to 60 years, married urban residents with post-secondary education, gainfully employed but with meager pay, having 18.5-24.9 BMI who claimed to have never smoked or drank alcohol, and had established type 2 diabetes reported to have been diagnosed for four years ago with known high blood pressure as comorbidity.

Table 3: Effect of sociodemographic factors on self-care practice in Bayelsa State.

Item	Response pattern	Self-care factor	Percentage self-care
Age in years	20-40	0.100	10.00
	41-60	0.260	26.00
	above 61	0.093	9.30
Gender	Male	0.300	30.00
	Female	0.150	15.00
Residence	Urban	0.380	38.00
	Rural	0.072	7.20
Marital status	Single	0.150	15.00
	Married	0.300	30.00
Education	FSLC	0.089	8.90
	SSLC	0.110	11.00
	ND/HND/BSC	0.230	23.00
	MSC/PHD	0.020	2.00
Employment	Unemployed	0.098	9.80
	Self-employed	0.160	16.00
	Employed	0.190	19.00
Occupation	Civil	0.091	9.10
	Farming	0.110	11.00
	Military	0.040	4.00
	Others	0.220	22.00
Income	below 30k	0.140	14.00
	60-90k	0.110	11.00
	91-120k	0.094	9.40
	121-180k	0.061	6.10
	above 181k	0.052	5.20
BMI	<18.5	0.048	4.80
	18.5-24.9	0.260	26.00
	25.0-29.9	0.083	8.30
	>30.0	0.062	6.20
Freq. of smoking	Never	0.310	31.00
	Formerly	0.058	5.80
	Occasionally	0.075	7.50
	Daily	0.013	1.30
Alcohol intake	Never	0.220	22.00
	Formerly	0.140	14.00
	Occasionally	0.080	8.00
	Daily	0.009	0.90
Diabetes type	type1	0.100	10.00
	type2	0.300	30.00
	Gestational	0.041	4.10
	Others	0.008	0.80

Time of diagnosis	a year ago	0.110	11.00
	2-3 years ago	0.088	8.80
	3-4 years ago	0.080	8.00
	4-5 years ago	0.042	4.20
	> 5 years ago	0.130	13.00
Co-morbidities	high BP	0.400	40.00
	Obesity	0.009	0.90
	Dyslipidemia	0.004	0.40
	Others	0.045	4.50

Table 4: Pearson Chi-Square Tests on sociodemographic factors and self-care practice of diabetic patients in Bayelsa State.

Items — Effect on individual self-care Questions

Column headers: Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q28

Factor	Stat	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
Age in years	x^2	17.053	37.680	8.927	18.927	33.790	15.308	13.528	18.978	11.963	35.860	22.916	29.083	30.825	11.902	9.231	36.404	19.315	15.107	33.808	21.570	18.566	8.776	25.324	32.355	26.071	16.883	13.501	10.150
	Sig	.030	.000	.348	.015	.000	.053	.095	.015	.153	.000	.003	.000	.000	.156	.323	.000	.013	.057	.000	.006	.017	.362	.001	.000	.001	.031	.096	.255
Gender	x^2	27.031	1.434	13.656	2.160	14.358	7.567	6.074	6.382	21.669	5.896	5.927	2.541	6.993	10.072	8.713	3.335	22.957	7.252	20.088	6.968	18.277	5.126	16.212	6.008	7.375	3.689	4.706	8.982
	Sig	.000	.838	.008	.706	.006	.109	.194	.172	.000	.207	.205	.637	.136	.039	.069	.503	.000	.123	.000	.138	.001	.275	.003	.199	.117	.450	.319	.062
Residence	x^2	5.924	23.792	4.018	5.814	17.248	11.911	7.697	13.169	4.003	7.329	5.945	1.432	8.874	8.114	1.317	9.913	6.593	4.154	24.524	17.903	5.576	1.348	2.824	4.462	5.288	4.084	4.026	8.157
	Sig	.205	.000	.404	.213	.002	.018	.103	.010	.406	.120	.203	.839	.064	.087	.858	.042	.159	.386	.000	.001	.233	.853	.588	.347	.259	.395	.402	.086
Marital status	x^2	13.614	15.340	7.759	9.637	15.054	18.264	10.836	11.796	8.545	19.799	21.283	18.422	16.992	9.327	20.377	17.603	38.385	6.886	17.976	10.886	10.251	5.832	10.048	21.644	8.850	7.844	7.903	10.561
	Sig	.092	.053	.457	.291	.058	.019	.211	.161	.382	.011	.006	.018	.030	.315	.009	.024	.000	.549	.021	.208	.248	.666	.262	.006	.355	.449	.443	.228
Education	x^2	28.093	33.610	18.819	16.843	15.927	19.440	27.328	30.833	24.437	30.485	32.484	23.547	26.407	38.386	33.650	18.574	29.119	27.611	21.653	20.862	33.897	23.916	30.436	30.328	32.887	30.731	40.389	49.250
	Sig	.005	.001	.093	.156	.195	.078	.007	.002	.018	.002	.001	.023	.009	.000	.001	.099	.004	.006	.042	.052	.001	.021	.002	.002	.001	.002	.000	.000
Employment	x^2	21.594	30.096	37.839	23.191	16.535	21.936	26.256	28.730	23.500	20.543	31.759	18.244	28.178	14.488	42.711	13.398	24.545	32.802	20.409	26.010	16.997	16.396	22.618	42.012	27.906	32.922	24.977	12.830
	Sig	.042	.003	.000	.026	.168	.038	.010	.004	.024	.057	.002	.108	.005	.271	.000	.341	.017	.001	.060	.011	.150	.174	.031	.000	.006	.001	.015	.382
Occupation	x^2	16.785	16.517	42.356	23.941	45.655	29.517	22.617	36.627	54.070	23.564	46.502	33.324	28.797	20.144	28.483	27.872	58.689	19.243	20.974	33.976	27.247	20.915	18.599	42.819	24.117	28.475	21.968	32.744
	Sig	.158	.169	.000	.021	.000	.003	.031	.000	.000	.023	.000	.001	.004	.064	.005	.006	.000	.083	.051	.001	.007	.052	.099	.000	.020	.005	.038	.001
Income	x^2	74.719	16.205	31.205	41.273	50.265	48.244	29.182	43.703	51.450	30.290	29.066	32.892	42.775	35.451	40.951	23.068	36.216	21.373	40.038	31.374	40.432	28.169	24.445	28.341	29.234	33.068	44.105	30.681
	Sig	.000	.439	.013	.001	.000	.000	.023	.000	.000	.017	.023	.008	.000	.003	.001	.112	.003	.165	.001	.012	.001	.030	.080	.029	.022	.007	.000	.015
BMI	x^2	32.722	24.120	94.491	40.767	32.231	21.795	25.923	61.295	40.837	19.262	36.855	27.044	45.550	37.324	38.138	24.113	34.742	24.525	31.441	67.178	58.520	48.460	24.611	35.262	24.217	27.931	50.572	58.845
	Sig	.001	.020	.000	.000	.001	.040	.011	.000	.000	.082	.000	.008	.000	.000	.000	.020	.001	.017	.002	.000	.000	.000	.017	.000	.019	.006	.000	.000
Freq. of smoking	x^2	15.051	17.223	20.419	14.013	13.534	18.056	19.497	20.692	40.643	28.948	19.839	27.967	30.446	34.560	15.219	36.908	18.414	29.746	9.931	12.908	16.573	20.726	24.614	7.086	13.197	16.281	27.068	32.062
	Sig	.239	.141	.060	.300	.331	.114	.077	.055	.000	.004	.070	.006	.002	.001	.230	.000	.104	.003	.622	.376	.166	.055	.017	.852	.355	.179	.008	.001
Alcohol intake	x^2	24.667	19.895	44.902	16.702	30.773	21.043	14.711	26.977	40.250	31.714	28.121	25.822	25.262	23.640	29.147	17.712	24.761	16.784	15.600	14.588	24.350	14.245	25.689	29.773	22.747	35.809	17.952	23.351
	Sig	.016	.069	.000	.161	.002	.050	.258	.008	.000	.002	.005	.011	.014	.023	.004	.125	.016	.158	.210	.265	.018	.285	.012	.003	.030	.000	.117	.025
Time of diagnosis	x^2	58.836	37.562	62.558	48.516	55.798	38.014	37.260	55.012	69.825	43.103	48.385	33.286	41.846	53.504	30.132	34.174	56.533	65.006	27.846	53.113	58.697	39.961	49.255	21.469	22.266	47.839	50.572	59.656
	Sig	.000	.002	.000	.000	.000	.002	.002	.000	.000	.000	.000	.007	.000	.000	.017	.005	.000	.000	.033	.000	.000	.001	.000	.161	.135	.000	.000	.000
abilities	x^2	41.316	29.028	24.413	18.128	30.710	69.154	43.681	29.552	20.891	32.105	24.883	37.712	33.958	23.281	21.636	28.453	37.917	25.993	20.809	23.637	34.742	22.492	28.558	25.322	29.611	44.950	46.001	10.346

| | .000 | .004 | .018 | .112 | .002 | .000 | .000 | .003 | .052 | .001 | .015 | .000 | .001 | .025 |
| .042 | .005 | .000 | .011 | .053 | .023 | .001 | .032 | .005 | .013 | .003 | .000 | .000 | | .586 |

DISCUSSION OF FINDINGS

About forty-five percent of participants reported a self-care factor of 0.4529 in this study. A study by [9], in the southwest of Nigeria report corroborated this study's findings, reporting poor self-care mostly in the areas of blood glucose monitoring, physical activity, and planning of their meals. The above finding was also indifferent with a study carried out in Ethiopia by [10]. The above findings might be connected to poor education on self-care. Also, patients' poor healthcare-seeking behavior might be a reason for poor self-care among diabetes patients. The above-related findings suggest inadequate self-care and non-adherence self-care guidelines as recommended by health care agencies such as WHO and Nigeria Federal Ministry of Health guidelines on self-care with diabetic patients. However, participants that were married - males between the ages 41-60 years that were urban residents with post-secondary education, and employed had better self-health care. This might be connected to their level of education and awareness of appropriate healthcare practice. Furthermore, they reported never smoking or taking alcohol but had type 2 diabetes diagnosed four years ago with high blood pressure as a comorbidity. This group of respondents reported higher self-care scores in this study. The reasons for this were earlier proved above. It can be deduced that unmarried elderly in rural towns with diabetic patients and those diabetic patients with the highest or lowest education reported high financial status and were smokers or takes alcohol and those in the military scored poor self-care scores. This might be related to poor access to health facilities, no healthcare professional, poor education, unawareness of self-care guidelines, and their inability to afford their health bills.

Diabetes self-care is essential for monitoring the condition, preventing complications, and controlling glucose levels to enhance the quality of life [6]. It has also been reported that due to poor self-care, many patients still suffer fatal sequelae [7]. Studies by [11], have suggested implementing self-management practices and standard operating processes (such as learning ideal blood glucose levels, symptoms of hypoglycemia, and daily reminders) in Nigerian tertiary care hospital patients with Type 2 Diabetes Mellitus and has also recommended self-management (learning ideal blood glucose levels, symptoms of hypoglycemia, and daily reminders) to be used along with prescribing anti-diabetic drugs and compliance in Nigerian tertiary care hospitals for Type 2 Diabetes Mellitus patients. Poor self-care practices and their associated factors—age, monthly income, occupation, years of diabetes, educational status, and knowledge level—have also been mentioned in the literature [12], used a self-structured checklist and observation method to assess the self-care practice on insulin usage and administration among diabetic patients in Kondancherry. Only 43% of patients were reported to have practiced appropriate insulin self-care, and education and residence had statistically significant relationships with self-care practice on administration (p<0.001). Effiong, et al. (2023) reported that 75% of diabetic farmers in the University of Calabar Teaching Hospital Calabar, Nigeria, had regular blood glucose checks, 70% had contact with health care providers for infections, and 60% had their meal plan regularly. In their study, lack of technical knowledge, bad attitudes towards diabetes, and inadequate communication between agricultural extension workers, health extension workers, and rural farmers in the study region were reported to hinder diabetic self-care practice. [13], conducted a pre- and post-quasi-experiment using a control group design to evaluate a community-based interactive approach (CBIA) for diabetic self-care. Investigation showed increasing knowledge (40%–80%) and attitude (20%–50%) after the CBIA intervention and recommending the use of such in all community settings [13].

Conclusion

The study findings revealed that most of the diabetic patient self-care practice in a hospital in Bayelsa state was poor. The findings are influenced by socio-demographic characteristics and other co-morbidities such as gender, age, marital status, place of residence, education, occupation, income level, BMI, alcohol consumption, and treatment duration. Education on self-care among diabetes patients in Bayelsa State is urgently required.

Recommendation

This study has identified poor self-care among diabetes patients in Diete Koko Memorial Hospital, Bayelsa State. A further study should be carried out among other hospitals in Bayelsa State.

Contribution to knowledge

The researcher has carried out fieldwork and has revealed a suboptimal self-care practice pattern among the diabetic patient population in the Bayelsa state of Nigeria.

REFERENCE

1. Padma, K.; Bele, S.; Bodhare, T.; Valsangkar, S (2012). (20 Evaluationtion of knowledge and self-care practices in diabetic patients and their role in disease management, National Journal of Community Medicine. 3: 3-6.
2. http://www.idf.org/sites/default/files/5E_IDFAtlasPoster_2012_EN.pdf (Accessed 5th November 2013).
3. Ayele, K.; Tesfa, B.; Abebe, L.; Tilahun,T.; Girma, E (2012). Self-Care Behavior among Patients with Diabetes in Harari, Eastern Ethiopia: The Health Belief Model Perspective, PLoS ONE. 7: 1-6.
4. Mohammad A. (2014). The prevention and control of type-2 diabetes by changing lifestyle and dietary patterns, J Educ Health Promot. 3: 1-21. doi: 10.4103/2277-9531.127541.
5. Getasew A. A., Tadesse A.B, Tirhas T. B and Getabalew E. (2021). Factors affecting adherence to lifestyle modification among patients with hypertension at Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia, 2019. SAGE Open Med. 9: 20503121211012523. Published online 2021 Apr 28. doi: 10.1177/20503121211012523.
6. Norris SL, Nichols PJ, Caspersen CJ, Glasgow RE, Engelgau MM, Jack Jr L, et al (2002). The effectiveness of disease and case management for people with diabetes: a systematic review. American Journal of preventive medicine. 22: 15-38.
7. Murri M, Insenser M, Bernal-Lopez MR, Perez-Martinez P, Escobar-Morreale HF, Tinahones FJ. (2013). Proteomic analysis of visceral adipose tissue in pre-obese patients with type 2 diabetes. Molecular and cellular endocrinology. 376: 99-106.
8. Aklilu T, (2014). Diabetic Patients' Knowledge of their disease, therapeutic goals, and Self-management: association with goal attainment at Dessie referral hospital. Ethiopia Ther Innov Regul Sci. 48: 583–91.
9. Enikuomehin, et al., (2021). The Pattern of Self-Care Practices among Type 2 Diabetes Patients in Southwest, Nigeria.Nigerian Journal of Clinical Practice 24: 978-985. DOI: 10.4103/njcp.njcp_527_20.
10. Daniel et al., (2020), Level of self-care practice among diabetic patients in Ethiopia: a systematic review and meta-analysis. BMC Public Health. 20: 309.
11. Yusuff, K., Obe, O., & Joseph, B. (2008). Adherence to anti-diabetic drug therapy and self-management practices among type-2 diabetics in Nigeria. Pharmacy World & Science, 876-883
12. Chandrasekaran, C., Atchaya, A & Aravindhan, P. (2022). A study to evaluate the self-care practice on insulin usage & administration techniques among diabetic patients. 10: 115-120. 10.5281/zenodo.7270515.
13. Mohamed I. Mohamed I., Hartayu, T. & Suryawati, S. (2012). Improving type 2 diabetic patient knowledge, attitude, and practice towards diabetes self-care by implementing a community-based interactive approach - diabetes mellitus strategy. Qatar Foundation Annual Research Forum Proceedings. BMP53. 10.5339/qfarf. 2012.

BMP53.

14. Adibe MO, Aguwa CN, Ukwe CV, Okonta JM, Udeogaranya, Obinna P (2009). Diabetes self-care knowledge among type 2 diabetic outpatients in south-eastern Nigeria. Int J Drug Dev Res. 1: 85-104.

15. Alba Garcia JG, Rocha AL, Lopez I, Baer RD, Dressler W, & Weller SC (2007). "Diabetes is my companion": Lifestyle and self-management among good and poor control Mexican diabetic patients. Soc Sci Med. 64: 2223-35.

16. Brewer-Lowry AN, Arcury TA, Bell RA, Quandt SA. (2010). Differentiating approaches to diabetes self-management of multi-ethnic rural older adults at the extremes of glycemic control. Gerontologist. 50: 657-67.

17. Chang, S. A. (2012). Smoking and Type 2 Diabetes Mellitus. Diabetes and Metabolism Journal, 399-403.

18. Chaurasia B, Summers SA (2015). Ceramides–lipotoxic inducers of metabolic disorders. Trends in Endocrinology & Metabolism. 26: 538-50.

19. Chinenye, S &Young E. (2013). State of Diabetes Care in Nigeria: a review. Nigerian health journal. 11: 101-106.

20. Delavari AR, Mahdavihazaveh AR, Norozinejad A, Yarahmadi SH (2004). Country program of prevention and control of diabetes. 2nd ed. Tehran: Seda Publication.

21. Dothari, R, Bokariya P. (2012). A comparative study of hematological parameters in Type 1 diabetes mellitus patient and healthy young adolescent. International Journal of Biological and Medical Research 3: 2429-32.

22. Etzwiler DD. (1994). Diabetes translation: A blueprint for the future. Diabetes Care. 17: 1-4.

23. Fisher EB, Brownson CA, O'Toole ML, Shetty G, Anwuri VV, Glasgow RE. (2005). Ecological approaches to self-management: The case of diabetes. Am J Public Health. 95: 1523-35.

24. International Diabetes Federation Diabetes Atlas (5th ed.) (2012).

update. Available from: Inzucchi SE. (2012). Diabetic Facts and Guidelines.2011. Available from: www.endocrinology.yale.edu/patient (Accessed 26th April 2012).

25. John B. E., Imaobong O. E., (2023). "Practice of Diabetic Self Care Among Diabetic Farmers in University of Calabar Teaching Hospital Calabar, Nigeria." Journal of Agriculture and Crops, vol. 9: 302-308.

26. Ngwu, E. (2005). Knowledge, Attitude, and Practice of Diabetic Patients. Medical-Surgical Nursing. 229.

27. Oghenekaro Godwin, (2020). Prevalence of Diabetes Mellitus in a Rural, Agrarian Community in South-South Nigeria: http://orcid.org/0000-0001-9417-3452: E-mail: drkoge@yahoo.com

28. Ojobi, J., Odoh, G., Aniekwensi, E., & Dunga, J. (2017). Mortality among type 2 diabetic in-patients in a Nigerian tertiary hospital. African Journal of Diabetes Medicine, 17-20.

29. Okolie, U. V., Ehiemere, I. O., Iheanacho, P. N., & Kalu-Igwe, N. I. (2009). Knowledge of diabetes management as well as control by diabetic patients at the Federal.

30. Perlmuter LC, Flanagan BP, Shah PH. (2008). Glycemic Control and Hypoglycemia. Diabetes Care. 31: 2072-6.

31. Roglic, G. (2016). Global Report on Diabetes. WHO Publication.

32. Ruchirawanitchathep W (2008). [Diabetic patients' knowledge, attitude and self-care in Roumachi primary care unit]. Buddhachinaraj Medical Journal. 25: 60-66.

33. Shoback, D. G. & Gardner, D. (2011). Diabetes mellitus. Greenspan's basic & clinical endocrinology. 3: 17.

34. Shrivastava, R. B., Shrivastava, S., Ramasamy, P. S., & Jegadeesh. (2013). Role of self-care in management of diabetes mellitus. Journal of Diabetes & Metabolic Disorders, 12-14.

35. Skinner TC, Carey ME, Cradock S, Daly H, Davies MJ, Doherty Y, (2006). Diabetes education and self-management for ongoing and newly diagnosed (DESMOND): Process modeling of a pilot study. Patient Educ Couns. 64: 369-77.

Cite this article: Owonaro Agala Peter Anthony Timothy Gilbert, and Awala Daughter Owonaro (2023) EVALUATION OF SELF-CARE PRACTICE AMONG DIABETIC PATIENTS IN A HOSPITAL IN BAYELSA STATE, NIGERIA. Japan Journal of Medical Science 4: 113-120.