Jordan Journal of Agricultural Sciences, Volume **20**, No.**3 2024**
DOI :https://doi.org/10.35516/jjas.v20i3.1276

Drivers of Healthy Lifestyle Behaviors among Arable Crop Farmers: Evidence from Kwara State, Nigeria

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Received on 6/6/2023 and Accepted for Publication on 14/2/2024.

ABSTRACT

Globally, a healthy lifestyle is important in maintaining the balance between man and the environment as well as the prevention and avoidance of Non-Communicable Diseases (NCDs) especially among rural dwellers in developing economies where the state of quality healthcare is in chaos. In theory, individuals are products of investments made in their health, which are either health-promoting or health-damaging behavior. We causally identify the motives of healthy lifestyle practices among arable crop farmers in Kwara state, Nigeria using a cross-sectional survey. We found out that less than average of the arable crop farmers sampled practiced healthy lifestyles and the factors that strongly influenced the healthy lifestyle behavior of arable crop farmers were gender, age, education, farm size, farm income as well as distance to healthcare. A policy simulation illustrates that taking consideration of the socioeconomic characteristics that drive the practice of healthy lifestyles will improve the health status of the populace, especially the rural dwellers, and also avoid lifestyle-related diseases in the future.

Keywords: Non-Communicable Diseases (NCDs), Health Behaviour, Wellbeing, Agricultural Productivity, Healthy Lifestyle Index.

INTRODUCTION

Non-communicable diseases (NCDs) are gradually increasing in sub-Saharan Africa (SSA), shifting the disease burden from predominantly communicable diseases to both infectious and chronic diseases. (Gouda *et al.*, 2019). It is projected to explain about 29% of all deaths and 60% of related factors to individual health and quality of life, in which health-related lifestyle practices play a significant role (World Health Organization [WHO], 2018).

A healthy lifestyle is important, including eating healthy, non-smoking, drinking less, and reducing stress to maintain the balance between man and environment as well as the prevention and avoidance of NCDs especially among rural dwellers in developing economies where the state of quality healthcare is in chaos and whose access to social infrastructures are limited in whom agricultural producers (farmers) are predominant.

The process of agricultural production can impact the health of producers and society as a whole. Being a farmer is a determinant of income and work-related health (Corinna & Ruel, 2006). For the health of farmers to be improved, there is a need for them to check their lifestyle, if it is enhancing or impairing their health, which in turn affects their efficiency and productivity.

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Health-related lifestyle is any unconcealed behavior or characteristic that affects physical, psychological, and social well-being today and in the future—even when the environment is a negative factor or the opposite. It also includes any behavior related to improving, restoring, or maintaining one's health. Individual life decisions can specifically enhance or jeopardize one's best performance and advancement at one's true and highest potential (Babao & Moscoso, 2008). Lifestyle could be health-promoting or damaging; it is discovered that very few people follow consistent health-enhancing lifestyle patterns. These lifestyle factors include; High alcohol consumption, daily smoking, obesity, skin protection, and underrated health care (Fragar & Depczynski, 2009).

For a farmer to be able to work effectively, he should be one, who: is free from; disease attacks, illness, disability, injury, occupational hazards and all forms of infirmities; eat balanced diets or have good plan of nutrition; have access to healthcare; have clean and safe water to use; have a good shelter; live in a clean environment; have stable psychological frame of mind; have good mental relaxation; have good social disposition, have amenities for exercise; have clothing and other essential economic commodities, that positively affect the state of health (Idio & Adejare, 2012).

Farmers need good health to engage in productive agriculture to reduce poverty, as reduced productivity due to the ill health of farm workers affects their incomes and increases the incidence of poverty and ill health (International Food Policy Institute, 2007). According to Asenso-Okyere *et al*. (2010), ill health makes it harder for farmers to experiment, innovate, and operationalize changes to agricultural systems and this is heightened by lifestyle practices that hampers or improves the health. In this context, this paper asks: what is the health-related lifestyle practiced and the factors influencing the practice of healthy lifestyle by arable crop farmers?

In theory, health stock increases deteriorates, or remains constant over time depending on the kind of investment made into it which is referred to as health inputs. Individuals are a product of this investment which is either health-promoting or health-damaging behavior as it determines the number of healthy days available for market and non-market activities (Grossman, 2000). This is illustrated in Figure 1, as people produce health by combining market goods that include medical care, diet, exercise, recreation, and housing and services with time, which are the health inputs, to increase the health capital stock and give more healthy days.

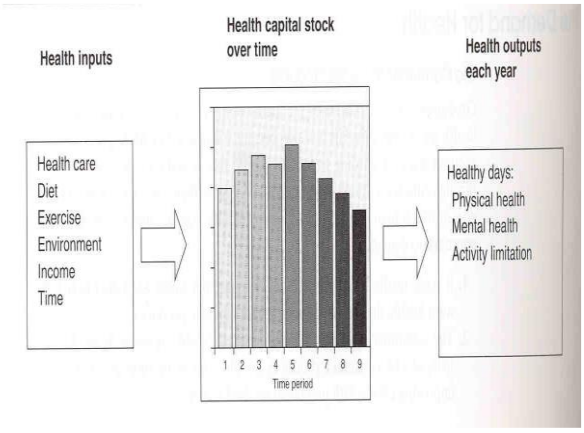

Figure 1: Health capital Framework
Source: Grossman, 2000

Muurinen (1982) and Wagstaff (1986) also described health investments as embracing all types of health-promoting behaviour, and health-damaging behaviour as affecting the rate at which health capital depreciates. This was also corroborated by Schneider and Schneider (2009) that most health behaviors have an impact on the health capital stock in general and that other factors are related to health stock besides medical care which could be health-promoting as well as health damaging behavior that further influence the depreciation rate of health positively or negatively. The authors also presume that acquiring education leads to better health knowledge, which means the higher the education of a person, the better the understanding of the health implication of one's behavior and it is valid for long-term health risks. Labor force participation was also found, to as one of the factors that influence health behaviour. As long working hours reduce time for health investment activities such as; relaxation and sports. However, a high workload is usually associated with a stressful day that leads to health-

damaging behavior (Schofield, 1996). Moreover, education and labor time determine income, which also influences health behavior as well (Andren & Palmer, 2001). Individuals with a low income are more likely to behave in an unhealthy way. Additionally, it is assumed that unemployment has an indirect effect on the labor force which leads to lower health investment e.g. unemployed individuals are more likely to behave in a health-damaging manner (Mathers & Schofield, 1998).

To test the theory, we used seven (7) health inputs to develop a healthy lifestyle index such as dietary behavior, smoking, alcohol consumption, substance use, indiscriminate sexual practice, stress management, and healthcare utilization to get a composite score which was used to group the arable farmers into those practicing a healthy lifestyle and those not.

To obtain causal estimates, we use a cross-sectional data and an econometric model Logistics regression model to examine the factors determining the practice of this lifestyles as it is used to predict the likelihood of a categorical outcome variable (Johansson *et al*., 1999; Qi *et al.*, 2006; Al-Kandari *et al*., 2008; Garson, 2008). A logistics regression model was used because the hypothesis for using it was fulfilled in this study which includes categorical dependent variable; continuous or categorical variables; no multi-collinearity; each independent variable has an identical effect at each cumulative split of the categorical dependent variable; the relationship between each pair of outcome group was the same; and the effects of explanatory variables must be consistent or proportional across the different thresholds (Stephenson, 2008).

Consistent with my theoretical predictions, we found out that socio-economic characteristics such as education, farm size, farm income as well as distance to healthcare influences practice of healthy lifestyles. This paper contributes to the literature on health-related lifestyle practices by examining the causal factors influencing the combination of lifestyles and grouping them into healthy and unhealthy lifestyle practices. Previous studies examine the factors influencing various health-related lifestyles as a single entity, for instance, factors influencing dietary behavior (Contoyannis & Jones, 2004; Cutler & Lleras-Muney, 2006; Miller *et al*., 2005; Robert, 2012), smoking (Qi *et al*., 2006; Schneider & Schneider, 2009; Schoenborn & Adams, 2010; Chahine *et al*., 2011), alcohol consumption (Ejechi 2016; Bloomfield *et al*., 2008; Alves *et al*., 2012), healthcare utilization (Hong *et al*, 2003; Grunheid, 2004; Miller *et al*., 2005; Dawson *et al*., 2007). Rather, we constructed a healthy lifestyle index by classifying each lifestyle factor into a low-risk (following a healthy lifestyle) and a high-risk (not following a healthy lifestyle) group, then assigned scores which were 1 and 0 respectively for the low and high-risk groups to compute a composite score ranging between 0 to 7 which was further divided by 7 to categorize into two groups unhealthy and healthy lifestyle status.

This paper proceeds as follows. Section 2 describes the methodology. Section 3 details the results and discussion.

Methodology

Study Area

This study was conducted in Kwara State, Nigeria, as shown in Figure 2

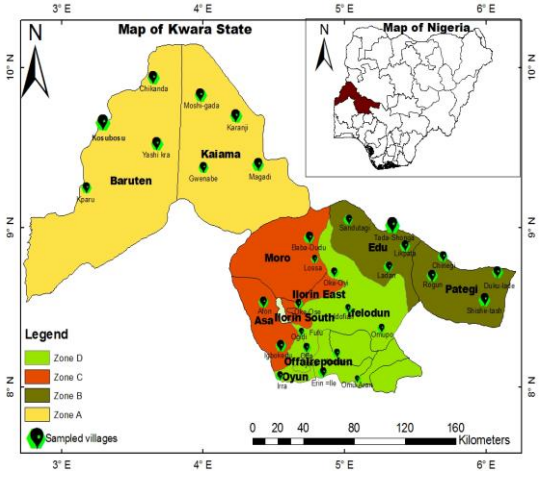

Figure 2: Map of Study Area highlighting Sampled Extension Blocks
Source: Authors design, 2020

The state is in the North-central geopolitical zone of Nigeria with latitudes between 7º45'N and 9º30'N and

longitudes 2º30'E and 6º25'E; have a land area of approximately 32,500 km^2. It serves as a 'viaduct state' connecting the North and South of Nigeria, bordering the states of Oyo, Ondo, and Osun to the south, Kebbi and Niger to the north, and Kogi to the east of Nigeria.

To the west lies the Republic of Benin, which is rich in ethnic diversity. The state has 16 Local Government Areas (LGAs) with a population of about 2.7 million, of which 57% (1.55 million) are male, with a population density of 42.5 square kilometers (Kwara State Agricultural Development Project [KWADP], 2014). The state is primarily rural, with over 80% of the population living in rural areas (National Bureau of Statistics [NBS], 2012). There are two distinct climate seasons each year, the dry season and the wet season. The rainy season is from April to October each year and the dry season is from November to March. Annual rainfall ranges from 1000 to 1500 mm and average high temperatures range from 30^{0}C and 35^{0}C. The state has been divided into four zones by the Kwara State Agricultural Development Project (KWADP) according to the ecological characteristics, cultural practices, and administrative conveniences of the project. Zone A: Balten and Kaima Municipal Area with headquarters in Kiama. Zone B: Edu and Patigi local government area with headquarters in Patigi. Zone C: Asa, Ilorin East, Ilorin South, Ilorin West, Moro Local Government Areas based in Shao. and Zone D: Ekti, Iferodun, Ilepodun, Ofa, Oyun, Isin, and Okeelo municipal districts headquartered in Igbaja (Farayola *et al.,* 2013) Kwara state's well-being index is 0.1168 (Adeyemo & Oni, 2013). The state of health facilities in the province is of poor quality and is believed to be related to a shortage of healthcare providers (Alagbonsi *et al*., 2013).

Ethical Considerations

The study was ethically approved by the University of Ilorin, Ilorin Nigeria Ethical Review Committee (Ethics No: UERC/ASN/2019/1487). Respondents were asked for their consent before participation in the study.

Sampling Technique

The study employed a cross-sectional survey. The population for this study included all farmers into arable farming in Kwara State. A three-step sampling procedure was used to select survey respondents. In the first stage, 10 Extension Blocks (EBs) were randomly selected from 23 extension blocks (EB) present in all agroecological zones in the state. In the second stage, two Extension Cells (ECs) were randomly selected from the eight (8) ECs present in each EB making a total of twenty (20) ECs selected. Meanwhile, in the third stage, we randomly selected 16 arable farms in each selected EC to ensure homogeneity. This was done by generating a list of arable crop farmers with the assistance of the Extension Agents and notable individuals in the extension cells in each of the cells. In all a total of three hundred and twenty (320) arable crop farmers were used for the study and a structured questionnaire which was pretested and validated was used to collect data from them.

Analytical Tools

Descriptive Analysis

This comprises measures of central tendency and dispersion (mean, mode, median, and standard deviation), percentages, frequencies and tabulation was used to describe the socio-economic and demographic characteristics of arable crop farmers; and to examine their health-related lifestyle status.

Healthy Lifestyles Index (HLI)

HLI was used to categorize the arable crop farmers into healthy and unhealthy lifestyle status in the study area based on existing literature (Grunheid, 2004; Nguyen *et al*., 2019; Fukunaga *et al.,* 2020). The healthy lifestyle index was constructed based on seven (7) indicators namely dietary behavior, smoking, alcohol consumption, substance use, indiscriminate sexual practice, stress management, and healthcare utilization as shown in Table 1, because they are the major lifestyles that influence health. Each lifestyle factor was classified into a low-risk (following a healthy lifestyle) or a high-risk (not following a healthy lifestyle) group. The scores assigned

to the low-risk and high-risk groups were 1 and 0, respectively, and a composite score between 0 to 7 was calculated and divided by 7 to categorize into two groups: 0 (unhealthy lifestyle status) and 1 (healthy lifestyle status). The indicators are measured as follows:

Dietary Behavior

The dietary behavior was measured using the dietary diversity score (DDS). The DDS ranges between 0 and 12 based on the number of food classes and types (cereals; root & tubers; vegetables; fruits; meat; eggs; fish & seafood; pulses, legumes & nuts; milk & milk products; oils/fats; sugar/honey; and others) consumed by the arable crop farmer in the period of a week (7days) by grouping them into a high-risk group (having DDS≤6) and low-risk group (having DDS >6).

Smoking

The low-risk groups are the non-smokers including never and former smokers, and the high-risk group are the current smokers.

Alcohol consumption

Based on U.S. dietary guidelines, the low-risk group for alcohol had ≤2 drinks per day for men and ≤1 drink for women, and the high-risk group had ≥2 drinks per day for men and ≥1 drink per day for women.

Drug and Substance Use

The low-risk group are farmers who follow a doctor's prescription before taking any drug and do not use any illicit drugs (heroine, inhalants e.t.c) to enhance their farming while the high-risk group are those who do not follow a doctor's prescription before taking any drug and uses illicit drugs (heroine, inhalants e.t.c) to enhance their farming.

Indiscriminate Sexual Practice

The low-risk groups are farmers who are not involved in casual sex; and do not have extra-marital affairs with multiple partners while the high-risk groups are those farmers who are involved in casual sex, and have extra-marital affairs with multiple partners.

Stress Management

The low-risk groups are persons who follow the recommended average sleep of 7 to 9 hours of sleep each night and have a low stress (feeling calm) level while the high-risk groups are persons who do not follow the recommended average sleep of 7 to 9 hours and have a high stress (feeling out of control) level.

Healthcare Utilization

The low-risk groups are persons who make use of the healthcare facilities close to them and use them regularly when required not minding the distance while the high-risk groups are persons who do not use the healthcare facilities close to them not even when the need arises.

Table 1: Healthy Lifestyle Index

Lifestyle Index Component	Low Risk Behavior (1)	High Risk Behavior (0)
Dietary behavior (based on dietary diversity score - DDS)	DDS>6	DDS≤6
Smoking	Non smoker	Current smoker
Alcohol consumption	≤2 drinks per day for men & ≤1 per day for women	≥2 drinks per day for men & ≥1 drink per day for women
Drug & Substance Use	Follow doctor's prescription	Does not follow doctor's prescription
Indiscriminate sexual practice	Does not involve in casual sex	Involve in casual sex

Stress Management	Observe 7-9 hours of sleep/night	Observe <7 hours of sleep/night
Orthodox Healthcare Utilization	Uses healthcare facilities when required	Does not use healthcare facilities even when required

Binary Logistic Regression Model (Logit)

Logit was used to examine the influencing factors of the practice of a healthy lifestyle by farmers in arable farming in the study area. The dependent variable is a categorical variable of either 1 if Healthy or 0 if Unhealthy.

The Logit regression model was specified as

$$Pi = E\left(y = \frac{1}{vi}\right) = \beta_o + Xi \text{ ……..…… (1)}$$

Where X_I = explanatory variables included in the model, Y = Farmer's health-related lifestyle status which is either 1 if Healthy or 0 if Unhealthy.

$$Y = f(X1, X2, X3, X4, X5, X6, X7, \ldots X10, \varepsilon i) \text{……(2)}$$

based on health capital model.

Y = Health-related lifestyle status of arable crop farmers (dummy Variable; 1= Healthy lifestyle, 0=otherwise); d_1 - Sex (male = 1; female = 0); X_1 - Farmer's Age (years); d_2 - Marital status (married = 1; single = 0); X_2 - Farmer's level of education (years); X_3 - Household size (adult equivalent); X_4 - Farm size (hectares); X_5 - Farm Income (Naira); X_6 - Off farm income (Naira); X_7 - Amount of credit (Naira); X_8 -Distance to the nearest healthcare center (Km); α – Intercept; ε_i – Error term, assumed to be uniformly distributed, as shown in Table 2.

Table 2: Apriori Expectation

Variable	**Apriori Signs**	**Explanation**
Sex (male = 1; female = 0)	-	Female arable crop farmers are likely to have a healthy lifestyle status
Farmer's Age (years)	+	Older arable crop farmers are likely to have a healthy lifestyle status
Marital status (married = 1; single = 0)	+	Married arable crop farmers are likely to have a healthy lifestyle status
Household size (adult equivalent)	-	Arable crop farmers with larger household size are likely not to have healthy lifestyle status
Farm size (hectares)	+	Arable crop farmers with larger farm size are likely to have healthy lifestyle status
Farm Income (Naira)	+	Arable crop farmers with higher farm income are likely to have healthy lifestyle status
Off farm income (Naira)	+	Arable crop farmers with higher off farm income are likely to have healthy lifestyle status
Amount of credit assessed (Naira)	+	Arable crop farmers that accessed higher credit are likely to have healthy lifestyle status
Distance to the nearest healthcare centre (Km)	-	Increase in distance to healthcare centre/facility will reduce the likelihood of arable crop farmers having healthy lifestyle status

Results and Discussion

Socio-Economic Characteristics of Arable Crop Farmers

Socioeconomic characteristics of arable crop farmers considered in the study include gender, age, marital status, household size, level of education, farm size, credit assessed, off-farm income, and annual farm income. These are presented in Table 3.

Table 3: Distribution of Arable Crop Farmers by their Demographic Characteristics (n=320)

Characteristics	Category	Frequency	Percent	Mean
Gender	Male	280	87.50	
	Female	40	12.50	
Age (years)	≤ 30	08	02.50	49
	31 – 40	71	22.19	
	41 – 50	89	27.81	
	51 – 60	99	30.94	
	> 60	53	16.56	
Marital status	Single	19	05.94	
	Married	301	94.06	
Household size (number)	≤ 5	69	21.56	
	6 – 10	222	69.38	7.33
	11- 15	29	09.06	
	>15	00	00.00	
Highest level of education	Informal	26	08.13	
	Primary	117	36.56	
	Secondary	163	50.94	
	Tertiary	14	04.38	
Farm size (hectare)	0.00 – 1.0	78	28.75	
	1.01 - 2.0	150	46.87	
	2.01 - 3.0	64	20.00	1.5
	3.01 – 4.0	07	2.19	
	>4.0	07	2.19	
Amount of Credit Assessed (naira)	≤100,000	61	43.88	102,158.27
	101,000 – 200,000	48	34.53	
	201,000 – 300,000	24	17.27	
	>300,000	06	4.32	
Monthly Off-farm Income (naira)	0	27	8.44	17,220.56
	≤10,000	69	21.56	
	10,001 – 20,000	150	46.88	
	20,001 – 30,000	51	15.94	
	30,001 – 40,000	17	5.31	
	>40,000	06	1.87	

Annual Farm Income (naira)	≤100,000	44	13.75	179,317.70
	101,001 – 200,000	85	26.55	
	201,001 – 300,000	130	40.63	
	301,001 – 400,000	35	10.94	
	>400,000	26	8.13	

Source: Field Survey, 2020

1US Dollar = ₦380.25 as at 2020

As shown in Table 3, the majority of the arable crop farmers sampled were males accounting for about 87.5 percent. This finding seems to indicate that arable agriculture in the study area is male-dominated. This may be due to the rigors of agriculture.

The distribution of arable crop farmers by age shows that the modal age group ranges from 41 to 60 years with a mean age of 49 years. Only about 3% of the farmers were young under the age of 30 years (Federal Ministry of Youth Affairs in Nigeria). The implication for the low number of youth among the farmers is that there may be less likelihood of the farmers trying out new technologies. This is because older farmers tend to be more conservative than their younger peers who are more open to new technologies (Daudu *et al.,* 2009). The lowest age recorded for arable crop farmers in this study was 28 years, and the highest recorded age was 70 years. About 94% of the farmers were married and the remaining 6 percent were single. The high percentage of married arable crop farmers may imply large household sizes.

Modal household sizes in this study ranged from 6 to 10, with minimum and maximum household sizes of 0 and 15, respectively. On the positive side, the importance of household size is that the larger the household size, the more family labor available for agricultural activities and the lower the production costs (Muhammad-Lawal *et al.,* 2009).

The majority of arable farmers (about 92 percent) had at least some form of training. The largest farm size recorded in this survey was 4.86 hectares. The average farm size was 1.5 hectares and the modal class had 1 to 2 hectares of cultivated land. The average loan amount assessed by arable farms is ₦102,158.27, while the modal loan amount is less than ₦100,000.

The results also show an average monthly non-farm income of ₦17,220.56 with a minimum of ₦5,000 and a maximum of ₦80,000. The majority of arable farmers received between ₦5,000 and ₦20,000 monthly from non-agricultural livelihoods. Their average annual agricultural income from their farm was ₦179,317.70, with a low of ₦19,582 and a high of ₦944,100. Most of the arable crop farmers received ₦100,000 to ₦300,000 annually from their farms.

Health-Related Lifestyle Status of Arable Crop Farmers

This section presents the health-related lifestyle indicators and status of arable crop farmers in the study area. (Table 4).

Table 4: **Lifestyle Factors and Health-Related Lifestyle Status of Arable Crop Farmers (n=320)**

Lifestyle Index Component	Classification	Frequency	Percent
Dietary behaviour	DDS>6	306	95.63
	DDS≤6	14	4.38
Smoking	Non smoker	108	33.75
	Current smoker	212	66.25
Alcohol consumption	≤2 drinks per day for men & ≤1 drink per day for women	108	33.75

	≥2 drinks per day for men & ≥1 drink per day for women	212	66.25
Drug & Substance Use	Follow doctor's prescription	241	75.31
	Does not follow doctor's prescription	79	24.69
Indiscriminate sexual practice	Does not involve in casual sex	258	80.63
	Involve in casual sex	62	19.38
Stress Management	Observe 7-9 hours of sleep/night	283	88.44
	Observe <7 hours of sleep/night	37	11.56
Orthodox Healthcare Utilization	Uses healthcare facilities when required	117	36.56
	Does not use healthcare facilities even when required	203	63.44
Health-Related Lifestyle Status	Healthy Lifestyle	103	32.19
	Unhealthy Lifestyle	217	67.81

Source: Field Survey, 2020

The results in Table 4, show that the majority (about 96 percent) of the arable crop farmers in the study area take healthy diet, about 34 percent were non-smokers and drink less than two (2) drinks/day for men and one (1) drink/day for women respectively. Seventy-five percent of the arable crop farmers do not misuse drugs and those who do are mainly youths, while 81 percent of the farmers are not involved in indiscriminate sexual practices. About 88 percent of the arable crop farmers have good stress management techniques, while 37 percent utilize the healthcare facility close to them. The average Healthy Lifestyle Index (HLI) was about 50 percent while the health-related lifestyle status from Table 4 shows that about 32 percent of the arable crop farmers in the study area practiced healthy lifestyles while the remaining 68 percent did not.

Factors Influencing Health-Related Lifestyle Status of Arable Crop Farmers

This section presents the result of factors influencing the practice of a healthy lifestyle among arable crop farmers in the study area.

Table 5: Logit Regression Result of Factors Influencing Health-related Lifestyle Status

Variable(s)	Coefficient	Std Error	Z-value	P>/Z/
Sex (d_1)	-5.591595***	0.879930	-6.35	0.000
Age (X_1)	0.178606***	0.03406	5.24	0.000
Marital status (d_2)	0.564086	1.307568	0.43	0.666
Education (X_2)	0.971495***	0.286215	3.39	0.001
Household size (X_3)	0.035445	0.081607	0.43	0.664

Farm size (X_4)	1.461861***	0.307897	4.75	0.000
Farm income (X_5)	3.98e-07***	1.07e-07	3.72	0.000
Off-farm income (X_6)	-0.0000332	0.0000234	-1.42	0.156
Amount of credit (X_7)	-7.32e-06	2.32e-06	-0.32	0.752
Distance to healthcare (X_8)	-0.827462***	0.163728	-5.05	0.000
Constant	-8.063608***	1.757021	-4.59	0.000
Number of observation	320			
Log-likelihood	-108.58113			
Pseudo R^2	0.4599			
LR chi^2 (10)	184.93			
Prob> chi^2	0.0000			
***	Significant at 5%			

Source: Field Survey, 2020

The results in Table 5 revealed that health-related lifestyle status was significantly affected by sex, age, education (schooling year), farm size, farm income, and distance to healthcare.

The sex coefficient was negatively significant at 5%, suggesting that female arable crop farmers were more likely to practice a healthier lifestyle than their male counterparts. This may be because women take more precautions than men regarding health issues and are less willing to risk affecting their health. This result is in collaboration with studies carried out by Robert, (2012); Ejechi, (2016), and Froze *et al*., (2019) where they found that females practiced healthy lifestyles than their male counterparts.

The age coefficient was positively significant at 5%, suggesting that older arable crop farmers are more likely to practice a healthier lifestyle. This may be because older people are becoming more cautious about what affects their health and well-being. The findings agree with studies by (Alves *et al*., 2012; Robert, 2012; and Ejechi, 2016) that unhealthy are prevalent among adolescents and young adults, while older people exhibit better health behavior than younger ones.

The education coefficient (schooling year) was positively significant at 5%, implying that formally educated arable crop farmers are more likely to practice a healthy lifestyle. This may be because they are more informed about what can improve or worsen their health and are more cautious about what affects their health and well-being. The findings is in consonance Awusi *et al*., 2009; Adegoke, 2010; Olasunbo & Ayo, 2013; Ejechi, 2016 and Froze *et al*., 2019 that found that unhealthy lifestyles are widespread among uneducated people, while educated people exhibit better health behavior.

The farm size coefficient was positively significant at 5%, suggesting that farmers with larger farm sizes are more likely to practice a healthy lifestyle. This indicates that efficiency and farm income increase as production increases as more land is cultivated

The coefficient of farm income was found to be positively significant at 5%, implying that as farmers earn more, they are more likely to practice a healthy lifestyle. This may be because farmers have access to higher quality, healthier food as their income increases, and access to quality medical facilities because these factors make up a healthy lifestyle, it also reduces stress, as many farmers report that financial insecurity increases stress. This is consistent with studies by Schoenborn (2004) and Shaheen *et al.,* (2015), which identify income as one of the factors influencing health-promoting behavior.

The coefficient of distance to healthcare facilities was also found to be negatively significant at 5%, implying that arable crop farmers close to health facilities are more likely to use facilities that are part of their health-related

lifestyle than farmers far from them. This is consistent with a study by Froze *et al*. (2019) who found out that short distances to health facilities impacted health knowledge, further supporting healthy lifestyle practices.

An R-squared value of 0.4599 indicates that the explanatory variable explains about 45.99% of the difference in health-related lifestyle practices among the arable crop farmers in the study area.

Conclusion and Recommendations

This study therefore concludes that health-related lifestyle practices among arable crop farmers are influenced by socioeconomic characteristics such as gender, age, education, farm size, farm income and distance to healthcare facilities. Based on the findings of the research, it is recommended that, arable crop farmers, especially young ones, should be informed and trained on health education related to various lifestyle factors to help them maintain and follow a healthy lifestyle. This in turn improves health and avoids future lifestyle diseases.

Conflicts of Interest

The authors declare no conflicts of interest to disclose.

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دوافع سلوكيات نمط الحياة الصحي بين مزارعي المحاصيل الصالحة للزراعة: أدلة من ولاية كوارا، نيجيريا

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تاريخ استلام البحث: 2023/6/6 وتاريخ قبوله: 2024/2/14.

ملخص

على الصعيد العالمي، يعد أسلوب الحياة الصحي مهمًا في الحفاظ على التوازن بين الإنسان والبيئة وكذلك الوقاية وتجنب الأمراض غير المعدية (NCDs) خاصة بين سكان الريف في الاقتصادات النامية حيث تعاني حالة الرعاية الصحية الجيدة من الفوضى. من الناحية النظرية، ان الأفراد هم نتاج الاستثمارات التي تمت في صحتهم والتي تكون إما سلوكًا يعزز الصحة أو سلوكًا ضارًا بالصحة. لقد حددنا سببيًا دوافع ممارسات نمط الحياة الصحي بين مزارعي المحاصيل الصالحة للزراعة في ولاية كوارا بنيجيريا باستخدام مسح مقطعي. لقد اكتشفنا أن أقل من المتوسط من مزارعي المحاصيل الصالحة للزراعة الذين تم أخذ عينات منهم يمارسون أنماط حياة صحية وأن العوامل التي أثرت بشدة على سلوك نمط الحياة الصحي لمزارعي المحاصيل الصالحة للزراعة هي الجنس والعمر والتعليم وحجم المزرعة ودخل المزرعة وكذلك المسافة إلى الرعاية الصحية. توضح محاكاة السياسات أن مراعاة الخصائص الاجتماعية والاقتصادية التي تدفع إلى ممارسة أنماط الحياة الصحية ستحسن الحالة الصحية للسكان، وخاصة سكان الريف، وستتجنب أيضًا الأمراض المرتبطة بنمط الحياة في المستقبل.

الكلمات الدالة: الأمراض غير المعدية، السلوك الصحي، الرفاهية، الإنتاجية الزراعية، مؤشر نمط الحياة الصحي.

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