FUDMA Journal of Agriculture and Agricultural Technology

ISSN: 2504-9496
Vol. 8 No. 2, December, 2022: Pp.166-174

https://doi.org/10.33003/jaat.2022.0802.22

PERCEIVED IMPACTS OF COVID-19 LOCKDOWN (2020) ON CHANGES IN LIFESTYLE AMONG COMMUNITIES IN SABON GARI, KADUNA STATE – NIGERIA

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ABSTRACT

The study, carried out in Sabon Gari Local Government Area of Kaduna State examined the impact of COVID-19 lockdown on the change in lifestyles and behaviour of adult males, adult females and youths. A Multi stage sampling technique was used to select 375 respondents for the study. Primary data were generated through the administration of structured questionnaire while data were analyzed with the use of descriptive statistics and logit regressions analysis. The hypothesis was tested with t-test statistics. Result shows that those who had tertiary education among the adult males adult females (and youths were 56%, 46% and 42% respectively attained tertiary education. Also, the use of social media was more among youths (78%), than the adult males (67%) and adult females (60%) while WhatsApp was the prevalent social media application used by youths (52%), adult females (48%) and adult males (38%). Change in lifestyles and behaviour show that there was increase in sleep during the day among the youths (97%), increase in the use of social media among youths (90%), increase in domestic violence as perceived by adult female (98%) and increase in the use of drugs among youths (80%). Result further revealed that change in lifestyle was influenced by level of income, participation in social group, access to social media and the type of social media application used. It was concluded that the lockdown order impacted on the lifestyles and behaviour of the respondents. The study recommended that government and other relevant authorities, should make provision through the use of appropriate technology and applications to ensure that people could order for food, household items and other necessary needs through online with designated agents who are vaccinated, trained and certified free from the pandemic to deliver the ordered items to their door steps.

Keywords: Perceived, Lockdown, Impact, Behaviour, Lifestyle, Kaduna

INTRODUCTION

Humans engage in daily life routines and activities to ensure improved health and life work performance. Health routines often recommended by qualified medical personnel are strictly observed, monitored and managed to help improve health status. Life style and behaviour therefore are routine life activities and observances that improves health, social life, work performance and general wellbeing of an individual. These routine activities include; pattern of sleep, dietary habit, drug, alcohol, sex, use of social media and health habits. These human routine behaviour are altered when there is an intrusion of a new social order. The incidence COVID-19 and the consequential isolation, quarantine and social distancing directives in no small measure altered the social lifestyle of the communities and individuals in particular. According to Mazidi *et al* (2021), the spread of coronavirus disease 2019 (COVID-19) have led to dramatic changes in day-to-day routines, resulting in increased social isolation, employment and financial insecurities, and an altered food environment. Studies in Europe observed the exacerbation of unfavourable diet and lifestyle behaviour attributable to these changes, such as increased sedentary behaviour, more snacking, less fresh food consumption and weight gain (Mazidi *et al.*, 2021).

Stults-Kolehmainen (2014), explains that at an individual level, major life events are associated with changes in health behaviour such as alcohol intake, sleep, diet and physical activity. This explains that life changes are often at individual level. Individual faced with different life challenges experience lifestyle changes. Lifestyles and behaviour could pose health risks and danger for individuals if not checked. According to Nyberg (2020), lifestyle modifiable behaviour, such as unhealthy diets, physical inactivity, tobacco use, and harmful use of alcohol, pose significant risk factors for non-communicable diseases. The lockdown period affected various human activities in various levels and manners but mostly restricted activities and increased the frequency of some other activities.

Furthermore, various research findings reported that the lockdown measures limited exercise opportunities, reduced physical activity levels, increased food consumption, affected diet quality and impacted sleep (Stockwell *et al.,* 2021; Pérez-Rodrigo *et al.,* 2021; Jahrami *et al.*, 2021; Stanton *et al.,* 2020; Giustino *et al.*, 2020; Scarmozzino and Visioli, 2020). The lockdown period was also characterized with lots of non-pharmaceutical regulations and restriction in other to reduce the incidences and further spread of the pandemic. These regulations include; quarantine and isolation for a certain period, restricted flights in and outside a country, social distancing, wearing of face masks and constant washing of hands. Some of these regulations and measures exacerbated the health conditions of many and caused frustration, fear, anxiety and death in some cases. According to Brooks *et al* (2020), quarantine is associated with negative psychological effects, including post-traumatic stress symptoms, confusion, and anger with multiple stressors identified, such as longer lockdown duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, stigma, and financial loss.

In the Nigerian context, the COVID-19 pandemic exerted unprecedented and unexpected pressure of the Nigerian medical system. The era witnessed the absence of ready medical facilities to absorb the pressure and efficiently manage the situation appropriately. To sustain and successfully apprehend the pandemic and ensure safety for Nigerians, the Presidential Task Force on COVID-19 was established by President Muhammadu Buhari on March 9th, 2020. The Task Force had the mandate to coordinate and oversee Nigeria's multi-sectoral inter-governmental efforts to contain the spread and mitigate the impact of COVID-19 pandemic in Nigeria through providing overall policy direction and guidance, enable the delivery of national and state-level outbreak control priorities, review and make approval recommendations for implementing country wide or regional non pharmaceutical interventions if and when needed, provide recommendations for the provision of direct funding and technical support to states and local governments, define targets and monitor the progress in the delivery of these targets to meet the minimum requirements for satisfactory performance, coordinate Nigeria's engagement with other countries' bilateral and multilateral bodies, international organizations to share lessons, best practices and technical assistance and to keep the public abreast of strategic progress with Nigeria's response, and emerging developments regarding preparedness and response (PTF, 2020). The committee based on the mandate and responsibilities recommended lockdown directives in different phases. The various days for each period include 31 days for pre-lockdown (28 February – March 29, 2020), 35 days for the total lockdown (March 30 – May 3, 2020), and (May 5 – July 15, 2020) a total 87 days for the gradual easing up of lockdown (Ibrahim *et al.*, 2020). These comprised of three phase of lockdown and the lockdown directive had impacts on the lifestyle behaviour of individuals within their environment. This research therefore examined the perceived impacts of covid-19 lockdown on change in lifestyle behaviour among communities of Sabon Gari Local Government Area of Kaduna State – Nigeria.

MATERIALS AND METHOD

The study area is is Sabongari Local Government Area in Kaduna State, Nigeria. It is one of the local government areas in the Zaria metropolis as well as being one of the districts of the Zazzau Emirate Council. The towns and villages are Dogarawa, Bomo, Basawa, Zabi, Samaru, Kwari, Barashi, Muchiya and Palladian. Sabon Gari Local Government Area is densely populated with estimated population of 204,562 (NPC, 2006). The towns hosted different members of diverse ethnic affiliations. The major language used is Hausa language while Islam and Christianity are the religions practiced among people in the area. The average temperature is 32 °C, with two major seasons which are dry and rainy season. Trading is a key economic activity of Sabon Gari with the area hosting several markets such as the Samaru and Sabon Gari main markets which attracts thousands of customers for buying and selling. It's a home for students and academic activities with also vibrant agriculture activities. The major crops farmed in the area are maize, millet, beans, rice, sorghum, carrot and cucumber

Multiple stage sampling technique was used in selecting 375 respondents. In the first stage, 8 communities were randomly selected. At the second stage, the list of households was collected from the community head in each community. The list of households in each community was stratified into adult male, adult female and youths. The categorization was done to examine which category were most affected by the COVID-19 lockdown in their lifestyle behaviour. From each stratum, 20% proportion was used to randomly select respondents from the sampling frame in each community. The result of the proportional selection was rounded up or down as the case maybe to ensure equal selection of the different categories. This represented 125 respondents for each category and gave a total of 375 respondents selected for the study. The total number of youths composed of (male youths = 66 and female youths = 59). The sampled respondents for each community is presented in table 1.

Primary data for the study were generated through the administration of structured questionnaire. Generated

primary data were analyzed with the use of descriptive statistics (frequency and percentage) and presented in table and graph. Logit regression was used to the estimate the socio-economic determinants of change in lifestyle behaviour among the respondents.

Table 1: Random Selection of Respondents with 20% Proportion

Communities	Adult Male	Adult Females	Youths	Total
Dogarawa	10	15	20	45
Zabi	15	21	14	50
Palladan	18	16	15	49
Bomo	20	14	12	46
Kwari	15	17	13	45
Samaru	21	18	19	58
Machiya	10	12	16	38
Basawa	16	12	16	44
TOTAL	**125**	**125**	**125**	**375**

Logit Regressions Analysis

$Y = \beta o + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \beta_nX_n + e$............ (1)

Where

Y = Change in Lifestyle Behaviour (This was measured by asking research question with binary response. Did your lifestyle behaviour change during COVID Lockdown? Yes = 1, No = 0)

Where

$X_1 – X_8$= Independent variables
X_1 = Age (Years)
X_2 = Educational Level (Years)
X_3 = Level of Income(₦/K)
X_4 = Household Size (Number)
X_5 = Occupation (None = 0, Civil service = 4, private = 3, business = 2 artisan = 1)
X_6 = Social Group Participation (Yes = 1, No = 0)
X_7 = Access to Social Media (Yes = 1, No = 0)
X_8 = Social Media Used (WhatsApp = 6, FB = 5, Instagram = 4, Twitter = 3, Telegram = 2, Tik Tok = 1)
e = Error term
β_0 = constant
$\beta_1 – \beta_8$ = Regression coefficient

T – test statistics

The study hypothesized that there is no significant difference in the change in lifestyle behaviour between males and females in the study are. T-test is one of the most frequently used procedures in statistics. The significant difference will be adjudged when the calculated t-value is greater than the critical value at (0.01<P<0.05). The hypothesis as stated will therefore be rejected. The t-test as used by Ayanlere (2016) is adapted in this study as specified.

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{S_1^1}{n_1} - \frac{S_2^2}{n_2}}} \quad \text{...(2)}$$

Where

t = calculated t- test value
$\overline{X_1}$= Mean of Sampled males
$\overline{X_2}$ = Mean of Sampled females
S^1_1 = Standard deviation of the sampled males = $\frac{\sum(x_1 - \bar{x}_1)^2}{n_1 - 1}$..(3)
S^2_2 = Standard deviation of the sampled females = $\frac{\sum(x_2 - \bar{x}_2)^2}{n_2 - 1}$ ....(4)

n_1 = Sample size of males
n_2 = Sample size of females

RESULTS AND DISCUSSION

Percentage Distribution of Respondents based on their Socio-economic Characteristics

Table 2 shows that 44%, 54% and 58% of adult males, adult females and youths had secondary education, while 56%, 46% and 42% respectively attained tertiary education. This implies that the respondents are expected to be aware of social media devices and application that could influence their attitude and behaviour, though adult male (56%) attained tertiary education over and above adult female and youths. This implies that adult males will be more aware of issues about the pandemic and lockdown, have more access to the internet and identify with more social media platforms in obtaining information on issues relating to the pandemic. The table also shows that 70%, 51% and 34% of adult male, adult female and youths respectively belong to social groups. The social groups to be both physical or online groups. It is expected that belonging to such groups could influence the behaviour of individual. Furthermore, adult male (67%), adult female (60%) and youths (78%) use social media applications and platforms while WhatsApp and Facebook ranked as first and second major applications used by the respondents.

Table 2: Percentage Distribution of Socio-economic Characteristics of Respondents

Socio-economic Characteristics	Adult Males		Adult Females		Youths	
	n = 125	%	n = 125	%	n = 125	%
Age (Years)						
21 – 30	0	0	0	0	125	100
31 – 40	55	44	60	48	0	0
41 – 50	45	36	48	38	0	0
>50	25	20	17	14	0	0
Educational Level (Years)						
Primary	0	0	0	0	0	0
Secondary	55	44	68	54	72	58
Tertiary	70	56	57	46	53	42
Level of Income (₦)						
≤50, 000	0	0	35	28	80	64
51, 000 – 100, 000	44	35	60	48	35	28
≥100, 000	81	65	30	24	10	8
Household Size (No.)						
1–5	79	63	83	66	85	68
6 –10	46	37	42	34	40	32
Occupation (Type)						
None	0	0	0	0	58	46
Civil Service	55	44	70	56	20	16
Private organization	25	20	20	16	20	16
Business	30	24	35	28	27	22
Artisan	15	12	0	0	0	0
Social Group Participation						
Yes	88	70	64	51	42	34
No	37	30	61	49	83	66
Access to Social Media						
Yes	84	67	75	60	98	78
No	41	33	50	40	27	22
Social Media Type Used						
WhatsApp	47	38	60	48	65	52
Facebook (FB)	30	24	35	28	30	24
Instagram	15	12	0	0	0	0
Twitter	23	18	10	8	13	10
Telegram	10	8	0	0	0	0
Tik Tok	0	0	20	16	17	14

CHANGES IN LIFESTYLE BEHAVIOUR AMONG ADULT MALES, ADULT FEMALES AND YOUTHS

Table 3 reveals that adult males, adult females and youth had different perception on the change in lifestyle behaviour as occasioned by the COVID-19 lockdown. As observed from the table, there was perceived increase in lifestyle changes in various behaviour traits among the different categories. The result revealed that for adult males, the major changes were increase in the use of social media and increase in illicit sexual behaviour. For the adult female, there was increase in the hours of sleep and increase in the rate of watching television while for the youths, there was increase in the use of social media, increase in illicit sexual behaviour and increase in the hour spent sleeping. The implication of these to health is that increase in sleep may lead to increased body weight and obesity, increase in the use of social media may lead to eye problem as long hours are spent on the laptop and mobile phones used for these activities. In corroboration, Sudip (2018) asserted that when the use of different gadgets, such as TV, computer, laptops, projectors, mobile phones or other displays become part of our everyday life, people experience a variety of symptoms of vision problems and others related to it. On the average, perceived change across all considered lifestyle behaviour was more among the youths (79%). The was followed by adult males (63%) and adult female (55%). This result is expected as youths are more vulnerable and susceptible in responding quickly to trend of events and changes in the society compared to adult males and females. COVID-19 pandemic therefore affected the live style of individuals during the lockdown. This finding corroborated finding of Kolokotroni *et al* (2021) who reported that he lifestyle habits of participants (Diet, Physical Activity, Stress, Sleep, Social Connection and Use of Risky Substances), were adversely affected during lockdown. In support of this finding, studies in the USA has indicated a slight change in behaviour during the lockdown period (Tran *et al*., 2020; Yach *et al*., 2020; Vanderbruggen *et al*., 2020).

Table 3: Changes in Lifestyle Behaviour among Adult Males, Adult Females and Youths

Lifestyle Behaviour	Adult Male (n=125)	Adult Female (n=125)	Youths (n=125)
Increase in hours of sleep during the day	70	97	85
Increase in the use of social media	84	72	98
Increased rate of watching television	65	85	79
Increased illicit sexual behaviour	75	35	88
Increased rate of alcoholism	33	15	52
Increase in smoking	48	13	63
Increase in the use of drug	63	45	80
Increased rate of food intake	65	78	83
Average	**63**	**55**	**79**

COMPOSITE COPING SCORE (CCS) OF MEASURES USED DURING THE COVID-19 LOCKDOWN ORDERS

Table 4 shows that men, women and youths adopted various measures to cope with the COVID-19 lockdown order. On the average, the youths (77%) engaged in all the activities more than adult male and adult females as coping measures. The composite coping score (CCS) shows that daily morning exercise and jogging, reading news and other national issues through social media and watching movies with electronic devices; handset, television. ranked 1st, 2nd and 3rd respectively as the most recurring coping measures adopted by the respondents during the COVID-19 lockdown order in the study area. These activities were engaged in as a result of boredom caused by the lockdown order. According to Avery *et al* (2020) and Ingram *et al* (2020), change in lifestyle behaviour is in response to the stress, boredom, restriction and social isolation. Furthermore, Deschasaux-Tanguy *et al* (2020) reported an increase in eating and physical activities during the lockdown period.

Table 4: Coping Strategies during the Lockdown Order by the Respondents (%)

Coping Strategies	Adult Males	Adult Females	Youths	CCS	Rank
Daily morning exercises and jogging	74	68	85	**76**	1st
Reading news and other national issues through social media	90	56	70	**72**	2nd
Watching movies on electronic devices: handset and television	65	70	78	**71**	3rd
Attending online trainings	65	53	85	**68**	4th
Play other games: draft, monopoly, scrabble, chess etc	68	43	72	**61**	5th
Learning handicraft around the neighbourhood: tailoring, weaving etc	34	70	65	**53**	6th
Playing video games	21	34	82	**52**	7th
Average for all categories	**60**	**56**	**77**		

DETERMINANTS OF CHANGE IN LIFESTYLE BEHAVIOUR DURING THE PANDEMIC LOCKDOWN PERIOD

The regressions analysis presented in table 5 shows that the Adjusted R^2 for adult male, adult female and youths are 0.73, 0.67 and 0.91 respectively. This implies that 73%, 67% and 91% of the independent or explanatory variables (Xs) accounted for the variation in the dependent variable Y(change in lifestyles behaviour) for adult male, adult female and the youths respectively. Furthermore, level of income, social participation, access to social media and type of social media used positively and significantly affected the change in lifestyle behaviour of the adult males, adult females and the youths The implication is that, the more the males, females and youths are exposed to these variables in a pandemic situation, the more their lifestyle behaviour will change. For instance, increase in income in a lockdown period will leave much money in the hands of males, female and youths to buy more data for browsing, downloading online item like films and subscribe to more channels on the television to watch. This is done with the desire to avoid being idle but be busy to avoid boredom and depression. For the youths, age was negatively significant in affecting lifestyle behaviour. This is an inverse relationship implying that a unit increase in age results to a unit decrease in the tendency of changing lifestyle behaviour. This means that these variables significantly influenced the respondents in the change in their lifestyle behaviour during the lockdown occasioned by the coronavirus disease.

Table 5: Determinants of Change in Lifestyles and Behaviours during the Pandemic Lockdown Period

	Adult Male (n = 125)			Adult Male (n = 125)			Youths (n = 125)		
Determinants	**Coeff**	**SE**	**t-value**	**Coeff**	**SE**	**t-value**	**Coeff**	**SE**	**t-value**
(Constant)	.089	.012	7.442	.078	.013	5.984	.014	.002	5.098
Age	-.401	.301	-1.332	-.164	.332	-0.493	-.214	.043	-4.934***
Level of Education	.231	.237	0.974	.773	.389	1.984	.984	.599	1.642
Household Size	.674	.401	1.679	.438	.274	1.594	.310	.332	0.931
Occupation	.841	.463	1.813	.581	.356	1.631	.604	.419	1.439
Level of Income	.883	.439	2.011**	.762	.189	4.012***	.915	.147	6.220***
Social Group Participation	.981	.466	2.102**	.900	.294	3.060***	.962	.239	4.022***
Access to Social Media	.832	.415	2.001**	.967	.460	-2.101**	.121	.028	4.301***
Type of Social Media Used	.983	.281	3.494***	.776	.380	2.041**	.934	.386	2.416**

R^2	0.75	0.69	0.92
Adjusted R^2	0.73	0.67	0.91

*** = Sig@1%, ** = Sig@5%, * = Sig@10%

GENDER DIFFERENCES IN LIFESTYLE BEHAVIOUR CHANGE DURING COVID-19 LOCKDOWN

The application of the t – test involved subjecting the unequal samples to analysis using excel spread sheet and presented in table 6. The analysis obtained the mean and standard deviation of each group and estimated the t and p values. The t-value of 1.521 is lower than the critical t-value of 1.963 with a p-value of 0.093 (0.01<P<0.05). This implies that there is no significant difference in the change in lifestyle behavior between male and female at 10% probability. The hypothesis is therefore accepted. This finding is contrary to the findings of Ogunsumi *et al.* (2010), Onemolease and Alakpa, (2009) and Igbokwe and Okoye, (2000) who reported significant difference between two groups considered in their studies.

TEST OF HYPOTHESIS

Table 6: Gender Differences in Lifestyle Behaviour Change during COVID-19 Lockdown

Gender	Mean	Standard Deviation	t- value	p-value
Male	0.752	0.648		
			1.521	0.093*
Female	0.433	0.479		

* = Significant at 10%. Critical t-vale = 1.963

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it was concluded that the COVID-19 lockdown order impacted on the lifestyle behaviour of adult males, adult females and youths in the study area. The lockdown affected mostly the youths who are more enthusiastic in exploration, learning new ideas, outgoing and ready to take risk. Staying at a place therefore was like burden and so affected their lifestyle and prompted them to involve in other uncommon behaviour to fill the gap of being engaged in more productive exercises.

The study recommended that in deciding way to reduce the spread of any form of infectious disease by the government or relevant authorities, provision should be made through the use of appropriate technology and applications to ensure that people could order for food, household items and other necessary needs through online with designated agents who are vaccinated, trained and certified free from the pandemic to deliver the ordered items to their door steps. Furthermore, necessary basic amenities like water and electricity should constantly be supplied to the households.

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