

Socio Psychological Factors As A Panacea To Adolescent' Social And Health-Related Preventive Practices Of Corona Virus In Ibadan South West, Oyo State Nigeria

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ABSTRACT

The Corona Virus pandemic has evolved and continues to be a very serious emergency across the globe. It is observed that many people do not take the prevention of this disease seriously, thus this study focused on the influence of demographic factors, corona virus awareness, and perception on social and health-related preventive practices of secondary school adolescents in Ibadan south west Local Government Area in Oyo state, Nigeria. The survey was conducted on one hundred and sixty (160) adolescents selected from four (4) private and four (public) secondary schools in Ibadan southwest LGA using a two-stage random sampling procedure. The instrument for data collection is a questionnaire titled Awareness, Perception and Adolescents' Social and Health- Related Preventive Practices of Corona virus (APSHRPCV). It was used to obtain information on demographic factors, awareness ($R=0.86$), perception ($R=0.84$) and social and health-related preventive practices ($R=0.83$). Data was analysed using descriptive (frequency, mean and standard deviation) and inferential statistics (Pearson moment correlation and regression analysis). The result revealed low level of adolescents' Covid-19 social and health-related preventive practices. It was observed that relationship between their awareness and perception of COVID-19 is a positive low relationship. Also it was revealed that awareness and perception can predict adolescents' social and health-related preventive practices. It is, therefore, recommended that the Nigeria Centre for Disease Control (NCDC) put in place more campaigns through adolescents' friendly social media to increase their awareness and perception, since positive awareness and perception is found to enhance adolescents' Covid-19 social and health-related preventive practices.

Keywords: adolescents, Corona virus, Social and health related preventive practices.

INTRODUCTION

The coronavirus belongs to a family of viruses that may cause various symptoms such as pneumonia, fever, breathing difficulty, and lung infection (Wuhan Municipal Health and Health Commission. 2020). The World Health Organization (WHO) used the term COVID-19 to refer to the virus in Wuhan, China on 29 December 2019 (Li, Guan, Wu, Wang, Zhou L and Tong, 2020; CDC. 2019; WHO, 2020). COVID-19 presents in different ways ranging from severe illness and mortality to mild symptoms and even been asymptomatic. Symptoms may develop between 2 to 14 days following exposure to the virus (Novel Coronavirus, Wuhan, China: Symptoms. CDC, 2019). In a very short time, the disease spread across China and cases were reported with an exponential increase in morbidity and mortality rates. The disease has evolved and continues to be a very serious emergency across the globe.

On 11th March 2020 the WHO declared COVID-19 a pandemic, having met the epidemiological criteria of having infected over 100,000 people in at least 100 countries (Callaway, 2020). Nigeria's first index case arrived on February 28 2020; since then the cases have risen every day to 46,577 confirmed cases and 945 deaths as of 9th August 2020 (NCDC, 2020). Nigeria inclusive is known to have fragile health systems and this remains a source of concern, especially in the event of increased outbreaks. As these cases continue to escalate, it is estimated that between 9–11% of infected patients will eventually need critical care and require intensive care (ICU) (Remuzzi and Remuzzi, 2020).. Most adult patients were between 35 and 55years old (Medical Expert Group of Togi Hospital, 2020). Oyo State recorded her first case of COVID-19 on March 17th, 2020, through a United Kingdom returnee.

A total of 34 confirmed cases were identified all within the capital city, Ibadan and two transferred from other states. In Oyo state there are 1,513 cases confirmed, 685 cases on admission, 809 cases discharged and 19 deaths as at Monday 6th July (NCDC, 2020). A study on early transmission dynamics of the virus reported the median age of patients to be 59years, ranging from 15 to 89years, with the majority (59%) being male (Li *et al.*, 2020). It was suggested that the population most at risk may be people with poor immune function such as older people and those with renal and hepatic dysfunction (Li *et al.*, 2020). However, there were also some identified cases among adolescents, children and infants (Medical Expert Group of Togi Hospital, (2020), Wang and Wang, (2020))

Adolescence, occurring between 12 and 19 years is a phase of physical, cognitive, and psychological development that generally occurs during the period from puberty to adulthood (WHO, 2007). It is a time characterised by storms and stress because being neither a child or an adult can be conflicting. It is a period when young people begin to challenge authorities and values and be influenced by their peers. It is also a time for developing independence (Kruger., Gouws, and Dicker, (2011); Lahey, van Hulle, Keenan, K. *et al.*, (2008). In many cities of Nigeria, Ibadan inclusive, adolescents are mostly found to be secondary school students. These secondary school adolescents are typically associated with so many social and health risk behaviours. Health risky behaviours mostly acquired during adolescence are reflected on to adulthood, and also influence cognitive performance, emotions, and overall quality of life (Patience & MacDonald, (1999); Anderson & Mueller, (2008)). According to Odunyemi (2017), health risk behaviour remain high among in school adolescents as 70.2% of respondent samples were involved in substance use (alcohol, cigarette, Indian hemp, tramadol), sexual activities, physical violence, and unhealthy dietary

behaviours in selected private schools in Ibadan, Oyo state. All the health and risk behaviours engaged by the adolescents makes him or her vulnerable to underlying illnesses and also the COVID-19 virus. Aside this, it has been established that all ages, adolescents inclusive can catch COVID-19 and that infected people in all age groups can transmit the virus.

According to the NCDC, there are several social and health related practices. These are social and health behaviour taken by individuals to maintain, attain, or regain good health and that can prevent the spread of the corona virus. For Ibadan, with the largest city in West Africa, emphasis has been on improving the surveillance systems in containing importation of the deadly virus, from other states, imposition of curfews, isolation of suspected carriers of the virus, quarantine of individuals, introduction of health and social preventive measures like regular hand wash and sanitizing, maintaining social distance, compulsory wearing of masks in public places. Also the partial lock down of public places like religious houses, stadium, shopping malls, banks, schools at all levels, clubs, markets and public offices etc. With the partial ease on the lock down of schools in Oyo state, Ibadan in particular on 6th July, 2020, a large number of adolescents will be leaving the confines of their homes, the watch of their parents, and be exposed to the outside world.

There are anecdotal reports of Nigerians against the resumption of schools because of the beliefs that secondary school adolescents may be at risk of contracting the corona virus as a result of their inadequate social and health-related preventive practices thus expressing fears on the spread in the future, but the extent to which the awareness and perceptions will influence the social and health-related preventive practices of COVID-19 is unclear. Such information on the awareness and perceptions of adolescents is needed, on a wider scale, not only to identify existing awareness and perception gaps but also to articulate optimal measures to prevent COVID-19 transmission in Ibadan and Nigeria at large. Additionally, if the disease were to sporadically erupt in local or regional pockets from time to time, and/or the so called second wave of the disease were to transpire then knowing the demographic variables, level of adolescents' awareness and perception of COVID-19 and how it affects their social and health preventive practices could be a guide on how to treat them and educate them further. It is therefore expedient to assess the adolescents; awareness, perception of COVID-19 and observe if it has influence on their health and social related preventive practices of the virus.

Research Questions

1. Is there any relationship between students' awareness and perception of COVID-19?
2. What is the level of COVID-19 social and health-related preventive practices of secondary school adolescents in Ibadan Southwest Local Government Area?
3. What is the joint contribution of students' variables, awareness and perception on social and health-related practices of the students?
4. What is the relative contribution of students' variables, awareness and perception on social and health-related practices of the students?

METHODOLOGY

Descriptive and correlational survey were adopted for this study. Descriptive survey study is a type of study where data collected are described in a systematic manner based on the characteristics, features and facts about a given population. Correlational survey seeks to establish the relationship that exists between two or more variables. It does not involve manipulation of variables, rather, it

entails the collection of data to describe existing phenomena. The study was carried out in Ibadan South West Local Government Area (LGA) of Oyo state. The target population for this study comprised all junior secondary school three (JSS III) and senior secondary school three (SS III) students in Ibadan South West Local Government Area of Oyo State. The reason for this chosen population is because they form those in the adolescent group and set of students that have resumed. A two stage random sampling procedure was used to select the sample for this study. In the first stage, eight (8) secondary schools were randomly selected comprising of four (4) public and four (4) private schools. In the second stage 20 students were randomly selected from each school making a total number of one hundred and sixty (160) students.

Four (4) research questions guided the study. A structured questionnaire known as Awareness, Perception, Social and Health-Related Preventive Practices of Corona Virus (APSHRPCV) was used in collecting data. The questionnaire consisted of four sections A, B, C & D. Section A consisted of student's demographic variables. Section B consisted of 30 items used to elicit information on students' awareness of corona virus pandemic. The response to this was measured on a two-point scale (aware and unaware). Section C comprised of 25 items that sought information on students perceived knowledge of corona virus. The response to section C of the questionnaire were measured on a four-point scale (strongly agree, agree, disagree and strongly disagree). While section D consisted of 20-items focused on social and health related preventive practices of corona virus. The response to section D items were also measured on a four-point scale (not at all, sometimes, most of the times and at all times). The instrument was subjected to face and content validity and empirical validities were ensured also.

Lawshe Content Validity (CVI) was used to establish the content validity and the value obtained was 0.82. The internal consistency and reliability of the instrument in sections B, C and D were established using Cronbach Alpha to get the values of 0.86 and 0.84 and 0.83 respectively. The instrument was then taken to the sampled schools and were administered to the students. However, one of the instrument was invalid and was not used, so one hundred and fifty-nine (159) questionnaires were used. Students responses were scored and data collated were analysed using descriptive (percentage, mean and standard deviation) and inferential (Pearson moment correlation and regression analysis).

RESULTS

Research Question 1. Is there any relationship between students' awareness and perception of COVID-19?

Table 1: Correlation coefficient showing relationship between awareness & perception on COVID

S/N	Result relationship	Correlation	Sig	P- Value
1	Awareness and Perception	0.265	0.000	0.05

Table 1 shows a correlation coefficient (r) of 0.285 which reveal that reveals that there is positive significant relationship between awareness and perception of students on COVID 19. This implies that students' awareness of COVID-19 influences their perception of COVID-1

Research Question 2. What is the level of COVID-19 Social and Health-related preventive practices of secondary school students in Ibadan Southwest Local Government Area?

Table 2 Descriptive statistics of the level of COVID-19 social and Health related preventive practices of students.

No.	Statements	Never	Rarely	Sometime	Always	Mean	SD
1.	I wash and sanitise my hands regularly.	1(0.6%)	7(4.4%)	31(19.5%)	120(75.5%)	3.70	.582
2.	I use my mask regularly anytime I have to leave my house	0(0%)	12(7.5%)	44(27.7%)	103(64.8%)	3.57	.631
3.	I have avoided handshakes and all forms of body contact since I heard of corona virus in Ibadan	9(5.7%)	28(17.6%)	50(31.4%)	72(45.3%)	3.16	.931
4.	I have washed and sanitized my body when I had unavoidable contacts	13(8.2%)	18(11.3%)	45(28.3%)	83(52.2%)	3.2	.953
5.	I do steam inhalation regularly, especially when I had to go outside my house	36(22.6%)	36(22.6%)	45(28.3%)	42(26.4%)	2.58	1.110
6	I don't leave my house except it is unavoidable	13(8.2%)	24(15.1%)	45(28.3%)	77(48.4%)	3.17	.969
7.	I always avoid crowded places	11(6.9%)	15(9.4%)	51(32.1%)	82(51.6%)	3.28	.901
8	I avoid touching metal surfaces and other surfaces in public places with my bare hands	11(6.9%)	28(17.6%)	46(28.9%)	74(46.5%)	3.15	.949
9.	I carry personal sanitizers with me and use it anytime I go to public places	19(11.9%)	12(7.5%)	29(18.2%)	99(62.3%)	3.31	1.042
10	Though I have missed my friends and school mates, I will not have body contacts with them anytime we meet	35(22.0%)	36(22.6%)	42(26.4%)	46(28.9%)	2.62	1.123
11.	I always maintain social distancing anywhere I go	8(5.0%)	26(16.4%)	54(34.0%)	71(44.7%)	3.18	.885
12.	I am compliant with all the NCDC rules on COVID-19	13(8.2%)	28(17.6%)	53(33.3%)	65(40.9%)	3.07	.955
13.	I wash my clothes regularly with soap.	5(3.1%)	16(10.1%)	13(8.2%)	125(78.6%)	3.62	.793
14.	I don't live on assumption that anybody is not infected	19(11.9%)	24(15.1%)	40(25.2%)	76(47.8%)	3.09	1.062
15.	I take warm water more than before	19(11.9%)	37(23.3%)	51(32.1%)	52(32.7%)	2.86	1.012
16	I avoid buying or putting on fairly used clothes	17(10.7%)	21(19.5%)	26(16.4%)	85(53.5%)	3.13	1.072
17	I wear gloves, if I have to collect money from the ATM machine	57(35.8%)	40(25.2%)	29(18.2%)	33(20.8%)	2.24	1.150
18	I wash and sanitize my hands each time, I handle cash	24(15.1%)	31(19.5%)	51(32.1%)	53(33.3%)	2.84	1.055
19	I avoid touching my face when my hands have not been thoroughly washed or sanitized	20(12.5%)	25(16.4%)	50(31.4%)	63(39.6%)	2.98	1.034
20	I take daily dose of vitamin c to boost my immunity	25(15.7%)	37(23.3%)	34(21.4%)	63(39.6%)	2.85	1.115

Table 2 shows that the respondents have a relatively low level of COVID-19 social and health-related preventive practices. Apart from items 1(wash and sanitise hands regularly) 2 (using mask regularly anytime I have to leave my house) 4 (wash and sanitize body when in unavoidable contacts) 7 (always avoid crowded places) 9 (carrying personal sanitizers and using it anytime in public places) 13 (washing clothes regularly with soap.) 16 (avoidance of buying or putting on fairly used clothes). Where 75.5%, 64.8%, 52.2%, 51.6%, 62.3%, 78.6%, 53.5% represent COVID-19 social and health related preventive practices of adolescents.

Only these percentages will always do the following; 20.8% will protect hands when using ATM machine, 26.4% will observe steam inhalation, 28.9% will avoid body contacts with friends they have missed, 33.3% will wash hands after handling cash, 32.7% will take warm water, 39.6% will avoid touching their faces when hands are not clean, 39.6% will take dose of vitamin c supplements, 40.9 will be compliant with NCDC rules, 45.3% will avoid handshakes, 46.5% will avoid touching metal surfaces in the public, 44.7% will practice social distance, 47.8% will not live on assumption and 48.4% will quarantine.

Research Question 3 What is the joint contribution of students' variables, awareness and perception on social and health related preventive practices of secondary school students?

Table 3: Joint contribution of students' variables, awareness and perception on social and health related preventive practices of secondary school students

Model	Sum of Square	df	Mean Square	F	Sig
Regression	3142.830	11	285.712	3.426	.000
Residual	12259.447	147	63,398		
Total	15402.277	158			
R = 0.452					
R Square= 0 .204					
R Square Adjusted = 0.143					

Table 3 showed the combination of predictor variables (students' age, religion, gender, household size, school type, fathers qualification, mothers' qualification, fathers' occupation, mothers' occupation, awareness and perception) is effective in predicting students social and health related preventive practices of COVID-19 pandemic ($F(11, 147) = 3.426 < 0.05$). The multiple correlation coefficient (R) of all the combined predictor variables (students' age, religion, gender, household size, school type, father's qualification, mothers' qualification, fathers' occupation, mothers' occupation, awareness and perception) with social and health related preventive practices of COVID-19 is 0.204 and the R Square Adjusted which estimates the variance accounted for by the combined predictor variable and criterion variable is 0.143.

This means that all the predictor variables contributed to only 14% of the variance in students social and health related preventive practices of COVID-19.

Research Question 4: What is the relative contribution of students' variables, awareness and perception on social and health-related preventive practices of secondary school students?

Table 4: Relative contribution of students' variables, awareness and perception on social and health related preventive practices of secondary school students?

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	58.370	13.104		4.455	.000
Age	-1.312	1.042	-.101	-1.259	.210
Religion	.423	2.015	.017	.210	.834
Gender	-.969	1.478	-.049	-.656	.513
Household Size	1.454	1.243	.090	1.169	.244
School Type	-5.526	1.822	-.288	-3.034	.003
Fathers' qualification	.453	1.388	.037	.326	.745
Mothers' qualification	-1.540	1.422	-.127	-1.083	.281
Fathers. occupation	-.061	.635	-.008	-.097	.923
Mothers' occupation	-1.768	.620	-.229	-2.853	.005
Awareness	.329	.159	.162	2.073	.040
Perception_	.025	.062	.035	.411	.682

Table 4 showed that there is relatively significant contribution of only two variables (awareness and perception) to adolescents social and health-related preventive practices of COVID-19. While the other nine variables (age, religion, gender, household size, school type, fathers' qualification, mothers' qualification, fathers' occupation, mothers' occupation) did not contribute significantly to adolescents social and health-related preventive practices of COVID-19. The table also showed the contribution of each independent variable on the dependent variable. Out of the two that were significant, awareness contributed better with ($\beta_{10} = 0.329$, $t = 2.073$, $p < 0.05$) then perception with ($\beta_1 = -0.025$, $t = 0.411$, $p < 0.05$)

DISCUSSION

The findings from the study revealed that there is significant relationship between awareness and perception of adolescents on COVID-19. This implies that adolescents' awareness of COVID-19 influences their perception of COVID-19. The finding of this study therefore contradicts the results of Niraj, Lakshman Perera, Irosha and Zeal, (2020) in their observation that awareness did not significantly correlate with the knowledge and perceptions of the COVID-19.

The result of the study revealed that the social and health-preventive practices of the adolescents is relatively low, except for those of regular hands washing and sanitization, using mask regularly anytime leaving the house, body washing and sanitizing when in unavoidable contacts, avoidance of crowded places, carrying personal sanitizers and using it anytime in public places, washing clothes regularly with soap and avoidance of buying or putting on fairly used clothes. Most of the social and health-related preventive practices bother on personal hygiene. During the adolescence stage, self-care activities become more important as the body begins to mature and physiologic changes start to occur. This finding is in conformity with a study conducted on adolescents and youths on self-assessment of hygiene practice by Stephen, Jones, Mavis and Tahiru (2019), where respondents from urban areas exhibited good hygiene practice. Most adolescents may make use of mask for social conformity, fashion and trends rather than as a preventive material. Just 20.8% will

protect hands when using ATM machine, this may be low because most secondary school adolescents are not financial independent and would not be saddled with the responsibility of using the ATM. Only 28.9% will avoid body contacts with friends they have missed, this is probably because adolescents love to socialize and mingle among their peers. The excitement of seeing their mates they have missed for quite some time may also make avoidance of body contact difficult.

Findings from this study also show that adolescents' awareness and perception influence their level of COVID-19 social and health preventive practices. This finding is also in line with Olapegba, Olusola, Kolawole, Oguntayo, Abdullahi, Iboro and Steven, (2020) that perception bear implications across public health initiative compliance with precautionary behaviour as well as bilateral relations with foreign countries. It also corroborates the findings of Wolf, Serper, Lauren, Opsasnick and O' Connor, (2020) that lack of awareness could not help respondents put up proper health preventive measures against COVID-19.

CONCLUSION

The study assessed the influence of demographic variables, the corona virus awareness and perception on social and health-related preventive practices of secondary school adolescents in Ibadan southwest and revealed that there is a relationship between adolescents' awareness and perception of COVID-19. The findings also revealed that adolescents' awareness and perception was low and it significantly influence their COVID-19 social and health-related preventive practices. The higher the awareness and perception the better the level of social and health-related preventive practices and vice versa. Adolescents' level of social and health-related preventive practices was found to be low. This can be attributed to the fact that the effort of the NCDC and other relevant agencies in creating awareness through all forms of social media accessed by adolescents is not enough. It is also important to note that although adolescents' awareness and perception towards COVID-19 could predict adolescents' social and health-related preventive practices, there are still other variables that if added will contribute to the remaining variance (86%) in adolescents' COVID-19 social and health-related practices.

Recommendations

Based on the findings of this study, the following recommendations are made

1. Since awareness and perception can influence adolescents COVID-19 social and health-related preventive practices, the NCDC should intensify campaigns on the COVID-19 through social media often used by the adolescents such as Facebook, Instagram, twitter to increase awareness of the adolescents and give them a positive perception towards putting up the positive social and health-related preventive practices
2. The school authority should enforce compliance to all the NCDC rules when adolescents are within the school premises
3. Banks are not only to make available sanitizers within the bank but also at the ATM. They can also make available disposable gloves or other disposable equipment to press the buttons of the ATM for each user

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