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RESEARCH ARTICLE

EFFECT OF TYPE A BEHAVIORAL PATTERN ON COMPLIANCE WITH COVID-19 SAFETY PROTOCOL AMONG NIGERIANS

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Abstract

The ongoing COVID-19 pandemic has been widely alleged to be the highest health crisis in many decades. In response to the widespread disease, the World Health Organization and various world governments instituted evidence-based preventive measures to control the rapid spread of the coronavirus. Consequently, there are indications of negligence and deliberate disregard of these measures by most individuals. The present study examined type A behavioral pattern as a personality disposition that could account for the variance in compliance to the COVID-19 safety protocols. A convenience sample of four hundred and forty-eight respondents pooled from different locations in Enugu and Ebonyi states, Nigeria, participated in the study. The result of the simple regression analysis confirmed the hypothesis of the study. Thus, it was concluded that TABP is a significant predictor of compliance to the safety protocols relative to the COVID-19 pandemic. The result provided valuable data for managing the spread of infectious diseases.

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Introduction:-

The emergence of the dreaded coronavirus disease was shocked the world in that the current outbreak seems unprecedented. The novel severe acute respiratory syndrome coronavirus (SARS-CoV-2) pandemic outbreak alleged to have emerged from Wuhan City, Hubei Province, China, in December 2019 had spread across the universe (Asita, 2020). The explosion of the disease created a public health emergency of international concern (Adhikari et al., 2020; Al-Shamsi et al., 2020; Arshad Ali et al., 2020; Chang et al., 2020; Lai et al., 2020; Li et al., 2020; Meng et al., 2020; Monaghesh & Hajizadeh, 2020; Wang et al., 2020; WHO, 2020). It significantly impacted global health and mental health (Torales et al., 2020) and overwhelmed every nation's health system, including the high-income countries. Thus, the outbreak affected societies and organizations unprecedentedly (Barreiro-Gen et al., 2020). Indeed, millions of people have been infected worldwide in the COVID-19 pandemic (Bridwell et al., 2020; Miranda et al., 2020; Niazkar & Niazkar, 2020; Sipahutar & Eryando, 2020; Sun et al., 2020), with a tremendous mortality rate. The coronavirus disease also accounted for a significantly large number of psychological costs (Liu et al., 2021)

COVID-19 in Nigeria

Nigeria is described as the most populous country in Africa, with an estimated 200 million population (Akinyemi & Isiugo-Abanihe, 2014). Unfortunately, on 27 February 2020, the first case of COVID-19 was detected in Nigeria (Adeboye et al., 2020; Omobowale et al., 2020; Onyeaghala & Olajide, 2020) and traced back to an Italian national who had returned to Nigeria from his visit to Milan, Italy. Consequently, the emergence of the COVID-19 made the

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country an epicenter of the virus in Africa. As of 14 November 2021, there were 213,147 confirmed cases of the virus in Nigeria, with 2,968 deaths recorded in the 36 states of the nation, including the Federal Capital Territory, as reported by the Nigeria Center for Disease Control (NCDC). Lagos in Nigeria had recorded the highest number of confirmed COVID-19 cases (77,949) to date 14 November 2021. However, the government assumed the entire state as critical zones, including Kogi (5), Kebbi (464), Jigawa (610), Cross River (660), and Bayelsa (1,247).

Based on reported cases, Nigeria is considered among the sixth top-ranked African country (Abioye et al., 2021). The burden of COVID-19 across every country region is unprecedented. The highest burden was seen in the South West region, with Lagos accounting for over 80% of the total disease burden in Nigeria (Onyeaghala & Olajide, 2020). Considering the high economic, religious, and social activities ongoing within several cities, community transmission of the disease became prevalent. Thus, prompting the establishment of the presidential taskforce on COVID-19 (PTF), with the primary objective of managing the spread of the virus.

Following the unavailability of effective medicine against COVID-19, a strict guideline to adhere to during the pandemic was instituted by the World Health Organization (WHO) (Asita, 2020). The standard precautions were considered necessary in curtailing the widespread of the disease worldwide. Preemptive measures such as consistent washing of hand with soap or hand sanitizer, evading handshaking, the regular wearing of nose masks, social distancing, coughing into disposable tissues or a flexed elbow and self-isolating if symptomatic, avoiding gatherings and nonessential travel to affected areas were developed amidst the increasing spread of the virus. Perhaps, the Federal Government of Nigeria, through the PTF-Covid-19, together with the Federal Ministry of Health, adopted the universal measure and initially locked down three high-risk areas, including Lagos, Ogun, and the Federal Capital Territory in Abuja (Eranga, 2020). Essential and nonessential activities were closed, such as churches, schools, bars, nightclubs, event centers, and recreation venues. A nationwide curfew was in place, and public gatherings were restricted, with crowds in enclosed spaces limited to 50 people. The purpose of these preventive measures was to curtail the spread of the disease. However, there are indications that many country citizens consistently ignored the stipulated COVID-19 protocols. Thus, the present paper sought to examine the role of certain personality traits (Type A behavioral patterns) in the variation in compliance to Covid-19 preventive protocols.

The present study

Recognizing the health implication relative to ignoring the COVID-19 protective guidelines, it becomes vital to explore the importance of individual traits in citizens' perceptions of adopting the stipulated standard measures. The type A behavioral pattern (TABP) describes a personality disposition characterized by time urgency, impatience, impulsive behavior, aggressiveness, ambitiousness, drive, a tendency to dominate, fiery speech, desire to control, restlessness, an orientation toward work responsibility, and easily provoked hostility (Day et al., 2005; De la Fuente et al., 2016; Kwon & Lee, 2019; McGregor et al., 1991; Nabi et al., 2005; Ogawa et al., 2018; Petticrew et al., 2012; Ruiz-Olivares et al., 2019; Shi et al., 2013; Wang et al., 2014). Research has indicated a link between Type A behavior patterns and cardiovascular disease (Bokenberger et al., 2014; Lohse et al., 2017; Wang et al., 2011), including coronary heart disease (Espnes, 2002). TABP has also been associated with unhealthy behaviors, such as risky driving (Nabi et al., 2005)

Individuals with Type A behavior dispositions are described as having emotions and behaviors characterized as risky and inflexible. Thus, they may have a low level of conformity. These dispositions, such as impatience and sense of time urgency, are more likely to predispose them to unconsciously exhibit some level of negligence over some stipulated standard procedures that are health safety-related. There is currently limited literature attempting to explain underlying mechanisms by which personal characteristics could lead to observed differences in compliance to COVID-19 protocol. Nonetheless, people with good knowledge about the risks and severity of the disease are more likely to respond positively and practice recommended preventive measures. This assumption excludes the importance of personality traits in behavior. Thus, the purpose of the present study is to examine Type A behavior pattern as a scarcely explored personality variable that could explain the variation in compliance to the laid down COVID-19 preemptive measures in Nigeria.

Hypothesis:

Type A behavior pattern will significantly predict compliance with COVID-19 safety protocol among Nigerians.

Method: -

The target population for the study included individuals within the age range of 18 to 50 years of age. The survey was conducted between August to November 2021. The participants were conveniently pooled from different locations in Enugu and Ebonyi state, Nigeria, and comprised males and females. A total of 485 potential participants were approached and asked to participate in a study to understand their compliance with the measures against the COVID-19 pandemic. In all, 462 respondents out of the 485 approached agreed to participate in the study. Hence, the instruments were administered to them. However, they were informed of the objective of the survey and were equally told that the participation was voluntary and that they could withdraw at any given time. Four hundred and sixty-two (462) copies of the scale administered were completed and retrieved on the spot. Nonetheless, only the acceptably completed forms (i.e., 448) were used for the study. The study adopted a cross-sectional survey research design.

Measures:-**Compliance with the COVID-19 safety protocols**

Compliance with the COVID-19 safety protocol was assessed with a developed scale following a literature review. Five items, each depicting one of the significant containment measures in the Nigerian context, including but not limited to social distancing, wearing a mask, frequently washing hands, and sanitizing. Participants were asked to what extent they act in accordance with the selected COVID-19 safety guidelines. Responses were scored on a 5-point Likert-type scale ranging from (1 = never to 5 = always). Higher scores are associated with greater compliance with the COVID-19 safety protocols.

Type A Behavior Pattern

Type A behavior pattern was measured using a modified version of the Framingham Type A scale (FTAS), consisting of 17 self-report items designed to ascertain a person's competitive drive, sense of time urgency, and perception of pressure. The FTAS is divided into two parts, with five items describing such features of TABP as compelled for time, hard-driving and competitive, domineering and controlling, a need to excel, and protected. Respondents answer each item using a four-point Likert-form scale expressing the level of compliance with the behavior (0 = Definitely not, 1 = Probably not, 2 = Probably, and 4 = Definitely). The second section of the questionnaire comprises five work orientation and time pressure items, with two answer options (0 = No and 1 = Yes). The total result is the mean of 10 items, which ranges from 0–1; average values closer to 1 indicate Type-A. A reliability coefficient of 0.88 was recorded on the scale for the current study.

Result:-

A simple regression analysis was conducted to test the hypothesis that Type A behavior patterns would significantly predict compliance with COVID-19 safety protocol among Nigerians. The study revealed that TABP statistically significantly predicted compliance with COVID-19 safety protocol $F(1,446), 37.61, P<.000$. Thus, the result indicated that the assumption that TABP would significantly predict compliance with COVID-19 safety protocol was affirmed. In addition, the R^2 showed that the TABP explained about 46.3% of the variance in compliance with the COVID-19 safety protocol.

Table 1:- Table showing the simple regression result for TABP and compliance with COVID-19 safety protocol.

	B	SEB	β	t	Sig
Constant	1.93	.046		65.42	.000
TABP	-.84	.057	-.87	-17.61	.000
R^2	.463				

Note. B = Unstandardized regression coefficient; SEB = Standardized error of the coefficient; β = Standardized coefficient; R^2 = Coefficient of determination. * $P<.000$.

Discussion:-

The study examined TABP as a personality variable that could explain the variation in compliance to the COVID-19 preventive measures. Four hundred and forty-eight participants were recruited for the study. Data from the fieldwork

was analyzed using a simple regression model. Regarding the assumption of the study, the personality type A behavior pattern was found to be a positive predictor of non-compliance with the COVID-19 safety protocols. The probable explanation for this result could be attributed to the behavior pattern of individuals with personality type A which comprises but is not limited to time urgency, competitiveness, aggressiveness, productivity, goal-oriented, and ambitious people who are in a hurry. This type of individual is primarily competent and determined to be successful and often is. Nevertheless, people that struggle to achieve more and more in less and less time are more likely to compromise safety procedures. This result seems consistent with Ugwu et al. (2015), who found that personality type A individuals are less likely to comply with safety work behaviors, which is most likely to expose them to various occupational hazards due to disregard of safety guidelines. This finding expands the limited research on the personality type A-safety behavior relationship relative to COVID-19 safety guidelines.

The implication of the study

The present study has various far-reaching implications for managing the spread of the coronavirus. This study presents a unique analysis of the influence of personality type A behavioral patterns on compliance to the COVID-19 related safety protocols. The study provided valuable data to the Federal Ministry of Health and the National Center for Disease Control in their fight to prevent the spread of infectious disease. The study result broadens our knowledge concerning the role of personality variables in disease preventive measures.

Study Limitations

There are some limitations of this study. Firstly, the cross-sectional design restrained the study from concluding causality. Experimental or longitudinal studies are more efficient in establishing this. Moreover, some biased responses may have been occasioned from the self-report measures for assessing personality types A. Multiple data collection sources are preferable because they can moderate false data. However, the anonymity assured the respondents may have encouraged appropriate responses and might have reduced but not eliminated such challenges.

Conclusions:-

The effect of personality type A on compliance with the COVID-19 safety protocol was examined in this study for the first time in the Nigerian context. This study revealed personality type A as a significant determinant of compliance to safety measures relative to COVID-19. The finding was consistent with the study's hypothesis. Given the cost of non-compliance to the COVID-19 preventive guidelines in terms of increased spread, loss of lives, medical and administrative cost, social and economic consequences. Appropriate authorities should advance research in the area of personality dispositions with compliance and non-compliance to forestall human actions that would have an eventual negative impact on the control of infectious diseases.

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