

## **Post-Appraisal of the Perceived Effect of COVID-19 Pandemic on the Psychological Wellbeing of Secondary School Students in Nigeria**

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### **Abstract**

The outbreak and global spread of the coronavirus in December 2019 has thrown the global community into a desperate search for an enduring solution to the scourge. To this end, several precautionary measures have been advanced. They included frequent washing of hands, use of face-mask and alcohol-based hand rub or soap and water, and covering of the nose and mouth with a flexed elbow or disposable tissue when coughing and sneezing, among others. For more robust outcomes of these measures, especially among the school-going children in the world, effective guidance and counselling services in the area of adequate orientation, information, and feedback/follow-up services need to be properly entrenched. This paper examined the perceived effects of COVID-19 and the potential impacts of counselling intervention services on the psychological wellbeing of school-going children in Osun State, Nigeria. A total of 400 secondary school students were selected from four schools. Findings revealed that the perceived effect of COVID-19 was higher among females than males and among urban residents than their counterparts in rural areas. The pro-counselling intervention services meant to cushion the effect were almost unavailable. Also, a negative significant relationship was found between perceived psychological effect and pro-counselling intervention services, which seemed to indicate that the lower the pro-counselling intervention services available to students, the more psychological effects and poor mental health they will experience. These findings have important implications for government and stakeholders in secondary education. There is an urgent need to put appropriate measures in place against different waves of COVID-19 across the globe in order to ensure that the safety and psychological wellbeing of secondary school students are not compromised.

**Keywords:** *COVID-19, counselling, psychological wellbeing, perceived effect, pandemic*

## INTRODUCTION

Coronaviruses are a group of viruses belonging to the family of Coronaviridae (WHO, 2020). These viruses are highly contagious and can predispose animals and humans to a variety of diseases ranging from common cold, coughing to Severe Acute Respiratory Syndrome (SARS). Beginning from December 2019 when this disease was first discovered in China, the world has been thrown into a comatose; and in a desperate search for enduring solution to the scourge. In the midst of searching for solutions, a number of precautionary measures including frequent sanitization of hands with soap and water, covering nose and mouth with a flexed elbow, avoiding close contact with anyone that has a fever and cough, among others, have been globally established and approved as having potential to curb the spread of COVID-19.

Available reports from WHO and the Nigeria Centre for Disease Control (NCDC) suggest that the risk of contracting COVID-19 is minimal among underaged persons. However, evidence from natural epidemic studies has shown that compared to adults, children are more vulnerable to the socio-emotional impact of traumatic events that disrupt their daily lives. As COVID-19 continued to spread and affect the global population, many countries of the world decided to close down their schools and other places of social/public gathering as part of the precautionary measures against the virus. According to UNESCO's (2020) report, beginning April 2020, schools were closed down nationwide in 188 countries. This means that globally, about 1.5 billion school-going children were detached from schooling. The UNESCO Director-General, Audrey Azoulay, had lamented that "the global scale and speed of the current educational disruption is unparalleled" (UNESCO Associated Schools Network, 2020, p. 1).

This disruption imposes serious psychological distress and adjustment problem on school-going children in areas of daily activities especially, peer interaction and home relation. According to Cao et al. (2020) and Li et al. (2020), the rising trend of COVID-19 cases on daily basis with its attendant effects of strict social-isolation measures and delays in resuming educational activities across nations, poses significant effect on mental health of school-going children. This may further impinge on their feelings, emotions, perceptions and security consciousness (Holmes et al., 2020). It is capable of reducing opportunities for stress regulation, with increasing anxieties for children (Fegert et al., 2020; Olaseni et al., 2020) and serious negative consequences for adolescents given the importance of peer contact for psychological well-being (Oberle et al., 2010). Young people (even infants and toddlers) are keen observers of people and environments, and they are sensitive to stress in their parents and other caregivers, peers, and community members. They are sensitive to the ongoing experiences and likely future occurrences. They are prone to behave differently in response to hard emotions (e.g., tension, anxiety, and stress) about the pandemic and other related issues. Besides, they are likely to get panicked about the safety of their lives and their loved ones (Bartlett et al., 2020). According to Adenubia et al. (2020) and Olaseni et al. (2020), pandemic-related fear was associated with why respondents felt more anxious, worried, restless, and afraid.

The case is more adverse for school-going children with mental health challenges. For such people, suspensions of school activities imply prevention of access to the previously enjoyed opportunities through schools. According to the finding of Mental Health Charity's study that involved 2111 participants (up to age 25 years) with a mental illness history in the UK, a resounding percent of the participants (83%) felt the pandemic made their conditions worse, while about a quarter (26%) felt they were unable to access mental health support, peer support, face-to-face services are non-existent any longer, and support by phone or online can be challenging for some young people (Bartlett et al., 2020; Holmes et al., 2020). Likewise, Angba (2022) reported that children facing extreme deprivations may suffer impaired cognitive development and longer-term mental health challenges caused by acute stress attributed to the COVID-19 pandemic's effect.

Thus, while ensuring the physical safety of children during and after the COVID-19 pandemic, it is equally important to factor their mental and psychological well-being. Some recent studies from China have shown that global pandemic like COVID-19 have potential psychological impacts on mental health of the general public, patients, medical staff, children, and older adults (Chen et al., 2020; Li et al., 2020; Yang et al., 2020). However, unlike older adults who usually return to their typical functioning after receiving consistent support and attention from sensitive and responsive caregivers, children are prone to significant trauma-related health problems, especially stress (Chen et al., 2020).

While a significant research attention has been given to the psychological impact of severe acute respiratory syndrome (SARS) on patients and health-care workers, little is known about the effects of global pandemic on psychological wellbeing of children and adolescents (Cao et al., 2020). This is an important gap for research attention. As the post-pandemic effect continues to linger across nations, children and adolescents encountering bereavement and issues related to parental unemployment or loss of household income need emotional and psychological support. Their mental health status needs to be monitored over a long term, as well as examining the potential effect of protracted school closures, strict social distancing rules, and the pandemic itself on the wellbeing of children and adolescents (Cao et al., 2020).

The World Health Organization (2020) has issued guidelines for managing the problem from both biomedical and psychological points of view. While preventive and medical action is very key at this stage, emergency counselling psychological interventions for children and young adults who suffered emotional distress as a result of COVID-19 pandemic are also critical. Presently, some clinical institutions and universities globally have opened online platforms to provide psychological counselling services for people affected by COVID-19. These services are yet to effectively cater for and address the magnitude of emotional disturbing experiences faced by the school-going children during pandemic, especially children from the less developed countries.

In order to develop appropriate counselling interventions for all or specific group of school-going children (e.g., more vulnerable), there is need for adequate understanding of the real psychological effects of pandemic on physical and psychological well-being of these people. This is in line with the tenets of the stress theory and perceived risk theory (National Health Commission of China, 2020) which opined that public health emergencies trigger more negative emotion, which affects cognitive assessment. The negative emotions drive people away from potential pathogens when referring to disease. However, long-term negative emotions can hamper the body resistant system and destroy the balance of their normal physiological mechanisms. Hence, people's reaction to a disease may be in excess especially

when there is less appropriate guidance from authorities, which may lead to extreme avoidant behaviors and blind conformity (Cheng et al., 2004).

## LITERATURE REVIEW

### Psychological Well-being and COVID-19 Pandemic

Psychological well-being is a complex term with diverse meanings to different scholars. According to Burns (2016), psychological well-being is the inter- and intra-individual levels of positive functioning which encompasses individual's relatedness with others and self-referent attitudes that depict one's sense of mastery and personal growth. Psychological well-being is the subjective understanding of positive psychological states such as happiness, life satisfaction, and a sense of purpose (Dhanabhakya & Sarath, 2023), and the personal evaluation of a person's life that is categorized by affirmative emotions, engagement, and meaning (Diener et al., 2010). From a positive psychology perspective, psychological well-being has been viewed as a combination of fulfillment and enjoyment (Seligman, 2002), and as a positive mental health (WHO, 2013). Mental health is the state of well-being in which individual realizes his/her abilities, can cope with the normal stresses in life, can work productively and fruitfully, and can make a contribution to his/her community (World Health Organization, 2018). According to the WHO (2013), physical health is incomplete without mental health.

The above definitions, therefore, suggest that psychological well-being is a multi-dimensional construct, with a number of pleasant experiences, such as happiness, satisfaction, and a sense of fulfillment. These further denote that happiness encompasses positive feelings, sense of satisfaction, pleasure, and a sense of meaning and purpose in life and not just the absence of distasteful feelings or events. In the context of this study, psychological well-being is construed as extent to which individual feels okay, satisfied and comfortable with life experiences. It is the extent that individual is free from physical, mental and emotional disturbances and worries. That is, a high psychological well-being implies a high feeling of happiness and comfortability, and vice-versa for a low psychological well-being. It is the combination of feeling good and functioning effectively. According to Frederick and Loewenstein (1999), having positive interpersonal connections with friends and loved ones are vital for psychological health. These connections give people emotional support, a sense of community, and support for happiness and wellbeing (Peterson & Seligman, 2004). Likewise, Ryan and Deci (2001) opined that mental and emotional states of a person can be greatly influenced by negative emotions including anxiety, despair, and rage. Hence, keeping low levels of negative emotions can enhance psychological well-being and prevents adverse effects on mental health (Keyes & Lopez, 2002).

Studies have shown that psychological well-being can be hampered by a dreaded disease like COVID-19 pandemic. According to Olaseni et al. (2020), psychological well-being suffers where there are limited opportunities for stress regulation (usually achieved through peer interaction in school); and where children frequently experience serious negative emotions (e.g., tension, anxiety, and fear) about the pandemic and other related issues (Bartlett et al., 2020). Similarly, in a study by the Mental Health Charity in the UK, a majority of the participants (83%) reported they had a worse condition during COVID-19 pandemic; another 26% were unable to access any mental health support, peer support, and face-to-face services

were non-existent (Bartlett et al., 2020; Holmes et al., 2020). Angba (2022) noted that children who experience serious deprivations (e.g., of previously enjoyed social supports) are prone to impaired cognitive development and longer-term mental health challenges. In fact, pandemic-related fear was found to be associated with why respondents felt more anxious, worried, restless, and afraid (Adenubia et al., 2020; Olaseni et al., 2020).

### **Social Cognitive Theory and COVID-19 Pandemic**

Social cognitive theory was developed by Albert Bandura. The theory is very useful and relevant in explaining the potential effect of COVID-19 pandemic on psychological well-being of secondary school students in Nigeria. According to Bandura (1989), social cognitive theory explicates how people observe their peers and friends' behaviors and eventually replicate or exhibit the behaviors. The term vicarious learning is used to describe the situation in which children learn and emulate behaviors through interactions with their peers and they internalize the behaviors which are accepted within the peer group. In the same vein, people generally acquire new knowledge, behaviors and attitudes by paying attention, observing, and construct knowledge of the behaviors or tasks. Therefore, students learn by paying attention to the different tasks, rehearsing the materials in order to store the information for reproduction subsequently.

However, COVID-19 pandemic and its associated movement restriction, as well as closing down of schools in all parts of the country have robbed off the opportunity for children to play and interact together so as to enhance their mental and psychological well-being. One important effect of this is that children were subjected to a restricted opportunity to experience positive growth and development through meaningful interaction with peers within and outside the school premise. It is through this interaction that the necessary skills to develop self-concept, self-worth and self-esteem are acquired. Also, opportunity to develop cognitive ability, better social relations and team-work spirit is enhanced when students interact freely and exchange ideas with one another. The absence of these opportunities is better imagined than experience for many students who are used to a healthy life and harmonious social relation with peer groups and friends within the school environment.

In tandem with the above submission, this research investigated the immediate and remote perceived effects of COVID-19 on psychological well-being of school-going children in Nigeria. Specifically, the study sought to: determine the rate of the perceived effect of COVID-19 pandemic on psychological well-being of school children in Osun State; identify the most perceived psychological effects and/or fears/anxieties related to COVID-19; examine the relevance and availability of pro-counselling intervention services to cushion the effects; and find out if significant differences exist in the perceived effect of COVID-19 across demographic variables of the school children in Osun State. The study aimed to contribute to reducing the risk of developing emotional distress and anxiety, improving well-being, and promoting preventive behaviors. It also advanced insight for governments and policymakers on evidence-based strategies to improve public and clinical intervention systems; and appropriate recommendations for engaging education stakeholders on need to promote safe and healthy schools.

### Research Questions

- 1) What is the rate of the perceived effect of COVID-19 pandemic on psychological well-being of secondary school children in Osun State?
- 2) What are the most perceived psychological effects of COVID-19 among secondary school children in Osun State?
- 3) What are the most perceived fears/anxieties related to COVID-19 among secondary school children in Osun State?
- 4) Are pro-counselling intervention services available to cushion the effects of COVID-19 pandemic on secondary school children in Osun State?
- 5) Are there significant differences in the perceived effect of COVID-19 based on selected demographic variables of secondary school children in Osun State?

### METHODOLOGY

#### Respondents

The target population of this study comprised school-going children in public and private schools across the three senatorial districts in Osun State. However, for this preliminary study, the participants were systematically selected from four senior secondary schools in Osun State, using a cluster sampling technique. At least, 100 respondents were drawn from each of the schools, making a total of 400 participants. The geographical spread, gender, age, and location of school of respondents were given special consideration in the selection process. A total of 219 males and 177 females, 100 young students (aged between 13-15 years) and 296 old students (aged 16 years and above), 109 students from rural area and 287 from urban area, as well as 53 students from SS1 class, 82 from SS2 class and 261 from SS3 class took part in the study. The mean age of the participants was 16 years. Altogether, 396 respondents provided usable data for the study.

#### Instrument

The study used two adapted and a self-constructed instrument to assess the perceived effect of COVID-19, fear/anxiety-related to COVID-19 pandemic, and the availability of counselling intervention services to cushion the effect. The two adapted questionnaires were: “*Child Self-Report Primary Version*” developed by Environmental Influences on Child Health Outcome (ECHO, 2020), and a 7-item “*Fear of COVID-19 Scale*” developed by Ahorsu et al. (2020). The availability of counselling intervention services and its effectiveness was measured with a self-constructed 8-items questionnaire.

The ECHO’s instrument was designed to elicit information about experience of adolescents within the age bracket 13-21 years old. The instrument consisted of two sections (i.e., sections on COVID-19 infection, and impacts of the COVID-19 outbreak on children). Only the eight items on the impact of COVID-19 outbreak listed at the concluding part of section “B” were adapted and modified, to measure the perceived psychological effect of COVID-19 pandemic. The items were measured on a 4-point Likert-type scale, ranging from 1 equals “not at all” to 4 equals “very often.” The higher the total score on the scale, the higher the perceived effect of the pandemic by the students.

The Fear of COVID-19 Scale was a 7-item instrument that measured the level of stress, anxiety and fear experienced or anticipated by the respondents during the COVID-19 pandemic. The participants were asked to indicate their level of agreement with the statements on a four-point Likert-like scale, ranging from 1 equals “strongly disagree,” to 4 equals “strongly agree.” The minimum score possible for each item was 1, and the maximum was 4. The higher the total score, the higher the perceived fear of COVID-19 pandemic.

The availability of counselling intervention services was measured with a self-constructed 8-items scale, which required the respondents to indicate how frequently and effectively they enjoyed/ utilized some counselling intervention services during the pandemic. The response scale ranged from 1 equals “not at all” to 3 equals “always.” The higher scores on the scale implied a higher perception of the availability and effectiveness of counselling intervention services during COVID-19 pandemic.

The psychometric properties of the adapted measures have been well established, as valid and reliable tools. However, since some modifications were made on the demographic and items of the instrument, to suit the context of the present use, the instruments were revalidated alongside the self-constructed measure. The new reliability estimates for ECHO, Fear of COVID-19 Scale, and Availability of counselling intervention measures were (0.82, 0.85 and 0.79 respectively), which were quite supportive of the internal consistency of the instruments.

## DATA ANALYSIS AND RESULTS

### Perceived Effects of COVID-19

The rate of the perceived effect of COVID-19 pandemic on psychological wellbeing of school children (Research Question 1) was determined using a descriptive statistical analysis. Table 1 presents the outcome of data analysis.

**Table 1**

*Rate of Perceived Effects of COVID-19 across Demographic Variables (N = 396)*

Variable	n	Effect (%)		
		High	Moderate	Low
Gender				
• Male	219	21.9	23.7	9.6
• Female	177	28.3	12.9	3.5
Age				
• 13 to 15	100	11.4	10.1	3.8
• 16 and above	296	38.8	26.5	9.4
Location				
• Rural	109	12.4	10.8	4.3
• Urban	287	37.9	25.8	8.8
Class				
• SS1	53	6.8	4.3	2.3
• SS2	82	11.4	8.1	1.3
• SS3	261	32.1	24.2	9.6

It is evident in Table 1 (based on the total effect highlighted in red, under each effect category) that a slightly above half of the participants (50.2%) perceived more effects of COVID-19 on their psychological wellbeing; 36.6% felt that the pandemic's effect was moderate (i.e., not too serious nor extreme); while only 13.2% were of the views that COVID-19 had a relatively low psychological effect in their lives. Also, a total of 219 males (21.9% high, 23.7% moderate, 9.6% low), compared with 177 females (28.3% high, 12.9% moderate, 3.5% low); 100 of lower age group students (11.4% high, 10.1% moderate, 3.8% low) compared with 296 of higher age group (38.8% high, 26.5% moderate, 9.4% low); 109 rural residents (12.4% high, 10.8% moderate, 4.3% low) compared with 287 urban counterparts (37.9% high, 25.8% moderate, 8.8% low); and 53 SS1 students (6.8% high, 4.3% moderate, 2.3% low), 82 SS2 students (11.4% high, 8.1 moderate, 1.3% low), compared with 261 SS3 students (32.1% high, 24.2% moderate, 9.6% low) reported different degree of the effect of COVID-19 pandemic on their psychological well-being.

### ***Most Perceived Psychological Effects and Fears/Anxieties-related to COVID-19***

To determine the most perceived psychological effects and the predominantly reported fears/anxieties related to COVID-19 among the respondents (Research Question 2 and 3), descriptive statistical analyzes (means and standard deviations, and percentage analysis) were conducted. For ease of result presentation, the four response options were collapsed into two. That is, 'not at all' and 'seldom' were merged as 'Not at all,' while 'sometimes' and 'very often' were merged as 'Very often'. Likewise, 'strongly disagree' and 'disagree' options were merged as 'Disagree', while 'agree' and 'strongly agree' were merged as 'Agree'. The mean scores for the overall scale were 3.5 and 3.5 respectively. Table 2 and 3 below showed the outcomes of the analyzes.

**Table 2**

*Data Distribution on Most Perceived Psychological Effect (N = 396)*

Item	Descriptive		Very Often		Not at All	
	M	SD	n	%	n	%
1. Felt bored staying at home	4.5	1.4	295	74.5	101	25.5
2. Felt disconnected from friends/ loved ones	3.8	1.4	256	64.6	140	35.4
3. Felt a sense of time slowing down	3.6	1.3	223	56.3	173	43.7
4. Had distressing dreams about COVID-19	3.5	1.3	218	55.1	178	44.9
5. Had difficulty sleeping	3.3	1.3	212	53.5	184	46.5
6. Tried to avoid thoughts and feelings about COVID-19	3.1	1.3	205	51.8	191	48.2
7. Got startled easily	3.1	1.2	145	36.6	251	63.4
8. Had angry outbursts	2.9	1.4	120	30.3	246	62.1



**Table 3***Data Distribution on Most Perceived Fear/Anxiety-related to COVID-19 (N = 396)*

Item	Descriptive		Agreement		Disagreement	
	M	SD	n	%	n	%
1. I am afraid of losing my life because of Corona	4.2	1.3	301	76.0	95	24.0
2. It makes me uncomfortable to think about Corona	3.6	1.4	219	55.3	177	44.7
3. My heart races or palpitates when I think about getting Corona	3.6	1.3	223	56.3	173	43.7
4. I am nervous when I read news about Corona on social media.	3.6	1.3	208	52.5	188	47.5
5. I am most afraid of Corona	3.3	1.3	194	49.0	202	51.0
6. My hands become clammy when I think about Corona	3.1	1.3	143	36.1	253	63.9
7. I cannot sleep because I'm worrying about getting Corona	3.1	1.2	155	39.1	241	60.9

From the tables displayed above, feeling boredom as a result of perpetual staying at home (M=4.5, SD=1.4) was endorsed by 74.5% of the participants as the most perceived effect of COVID-19 on children's psychological wellbeing; feeling of disconnected from friends and loved ones (M=3.8, SD=1.4) was endorsed by 66.6% of the participants; a sense of time is slowing down (M=3.6, SD=1.3) was endorsed by 56.3%; distressing dreams about COVID-19 (M=3.5, SD=1.3) was endorsed by 55.1%; among others. The least perceived psychological effect was the expression of angry outbursts (M=2.9, SD=1.4) which was endorsed by 30.3% of the participants.

Also, majority of the participants (76%) identified fear of death due to COVID-19 as their greatest anxiety. This was followed by feeling uncomfortable thinking about Corona (55.3%). The next predominantly reported fear was the racing/palpitation of heart when thinking about getting COVID-19 (56.3%). The least endorsed perceived fear was inability to sleep due to worrying about getting COVID-19 (39.1%).

### **Data Analysis on Availability of Pro-Counselling Intervention Services**

To establish rate of availability and accessibility of pro-counselling intervention services to cushion the perceived effects of COVID-19 pandemic (Research Question 4), a simple frequency count/ percentage analysis was conducted. As indicated earlier, items were measured on a 3-point response scale, wherein 1 equals "Not at all," 2 equals "Sometimes," and 3 equals "Always". Table 4 presents outcome of the data analysis.

**Table 4***Frequency of Availability of Pro-Counselling Intervention Services (N = 396)*

<b>Counselling Intervention Services</b>	<b>Not at all n (%)</b>	<b>Sometimes n (%)</b>	<b>Always n (%)</b>
<b>How often did you experience the following interventions?</b>			
1) Appropriate links exist for students to get necessary health information on pandemic	166 (41.9)	105 (26.5)	125 (31.6)
2) My school provides regular virtual counseling services to students during COVID-19	300 (75.8)	60 (15.1)	36 (9.1)
3) Students are regularly exposed to counseling therapy that could reduce COVID-19 related fear.	320 (80.8)	50 (12.6)	26 (6.5)
4) Students are regularly guided to seek authentic information about the pandemic	150 (37.9)	160 (40.4)	86 (21.7)
5) Children are regularly guided to maintain descent social interaction via social media	80 (20.2)	216 (54.5)	100 (25.3)
6) Counsellors respond promptly to students' behavioral concerns during COVID-19	290 (73.2)	76 (19.2)	30 (7.6)
7) School counsellors do render virtual counseling support to parents of students with behavioral concerns	320 (80.8)	45 (11.4)	31 (7.8)
8) Students are regularly guided to shun news outlets that increase fear/worry about COVID-19.	70 (17.7)	206 (52.0)	120 (30.3)

It is evident in table 4 that most participants felt that the highlighted intervention services were nonexistent in their areas. That is, those services were neither experienced nor available to be accessed by students in the study areas. Nonetheless, some portion of the participants felt the services were accessed by students sometimes; while a very negligible percent reported that the services were accessed very often by students. Among the critical services considered nonexistent by majority of the participants (80.8%) were items 3 and 7: "Students are regularly exposed to counselling therapy that could reduce COVID-19 related fear" and "School counsellors do render virtual counselling support to parents of students with behavioral concerns". Other services perceived by majority of participants (75.8% and 73.2% respectively) as not available at all include items 2: "My school provides regular virtual counselling services to students during COVID-19" and 6: "Counsellors respond promptly to students' behavioral concerns during COVID-19". The only service which a slightly above average (54.3%) perceived to be sometimes accessible to students is item 6: "Children are regularly guided to maintain descent social interaction via social media".

### Difference in Perceived Effect of COVID-19 across Demographic Variables

Differences in the perceived effects of COVID-19 across diverse variables of the respondents (Research Question 5) were examined using independent sample t-tests. The outcomes (table 5) showed that the mean scores of the urban participants ( $M = 3.56$ ,  $SD = 0.82$ ) compared with rural counterparts ( $M = 3.36$ ,  $SD = 0.89$ ),  $t(394) = 1.97$ ,  $p = 0.04$ , was statistically significant different. The urban participants perceived more effects than their counterparts from rural areas. Although, the magnitude of the difference (0.20) was small, with eta squared 0.01. Also, there was no significant difference in the scores obtained for gender and age groups, with males' scores ( $M = 3.38$ ,  $SD = 0.94$ ) compared with females' ( $M = 3.46$ ,  $SD = 0.78$ ),  $t(394) = -0.94$ ,  $p = 0.33$ ; and older students ( $M = 3.43$ ,  $SD = 0.86$ ) compared with younger ones ( $M = 3.29$ ,  $SD = 0.99$ ),  $t(394) = 0.86$ ,  $p = 0.39$ . Hence, the result was largely inconclusive.

**Table 5**

*Difference in Perceived Effect of COVID-19 across Demographic Variables (N = 396)*

Group	n	M	SD	T	df	P	95% Confidence Interval	
							Lower	Upper
Gender								
• Male	219	3.38	0.94	-0.94	394	0.33	-0.25	0.09
• Female	117	3.46	0.78					
Age								
• 13 to 15	100	3.29	0.99	0.86	394	0.39	-0.17	0.43
• 16 and above	296	3.43	0.86					
Residential Area								
• Urban	109	3.56	0.82	1.97	394	<b>0.04</b>	0.00	0.39
• Rural	287	3.36	0.89					

### Relationship between Psychological Effect and Frequency of Pro-Counselling Services

The relationship between perceived psychological effects and frequency of pro-counselling intervention services experienced by students was examined via a bivariate correlation analysis using the Pearson Product Moment procedure. The results showed a significant negative relationship between the perceived psychological effects and frequency of pro-counselling intervention services ( $r = -0.13$ ,  $p < .05$ ) (Table 6). This implied that the lower the pro-counselling intervention services experienced by students during COVID-19, the higher will be their perceived psychological effects.

**Table 6***Bivariate correlational analysis (N = 396)*

Scale	1	2
1. Frequency of Pro-counselling Services	-	-.130
2. Perceived Psychological Effect		-

*Note:* Correlation is significant at the 0.01 level (2-tailed).

## DISCUSSION

This study sought to investigate among other things level of the perceived effects of COVID-19 pandemic on psychological wellbeing of secondary school children in Osun State Nigeria; most perceived effect and/or fears/anxieties related to the pandemic, and extent of the availability/ accessibility of counselling intervention services to cushion the effect of pandemic. Towards these objectives, a number of descriptive and inferential statistical analyses were conducted.

The findings revealed that a greater percent of students perceived much psychological effect of COVID-19 on their wellbeing. Although a negligible percent felt the effect was relatively low on their wellbeing. The impact of the effect was perceived higher among females than males; among older students, mostly SS3 class than younger ages in probably SS2 or SS1 classes; and among students living in urban areas than those from rural residences. That the females perceived more effects than male counterparts are not strange. Women folks and children, by nature, are usually categorized among most vulnerable victims of a threatened event or sudden epidemic. Likewise, the older students especially those in the SS3 class are likely to perceive more effects than their younger counterparts because of the grouse that the pandemic has disrupted the school calendar and schedule of their final terminal exam. Similarly, students who reside in cities (urban areas) where disturbing news about COVID-19 are easily disseminated and accessed via various news outlets, are prone to more psychological effects than counterparts from rural areas. This result contradicts the finding of Cao et al. (2020) who reported that living in urban areas together with parents was part of protective factors against COVID-19-related anxieties.

Besides, the predominant perceived effects of COVID-19 on students' wellbeing were identified as feeling of boredom owing to perpetual staying at home, feeling of being disconnected from friends and loved ones, and a slowing down of sense of time. Isolation arising from social disconnection from members of one's social support system has enough potential to cause untold stress and distress for people. This finding is in accord with Olaseni et al. (2020) and Fegert et al. (2020) who identified lack of peer contact and reduced opportunities for stress regulation due to lockdown measure and social distancing as a serious source of anxiety. Also, Oberle et al. (2010) noted that social disconnection from friends and loved ones can have a negative impact on children and adolescents given the importance of peer contact for well-being. Furthermore, our findings revealed most perceived sources of fear/anxiety about COVID-19. These included the fear of death due to COVID-19, being uncomfortable thinking about Corona, and the racing/palpitation of heart when thinking about getting COVID-19. Given the dreaded nature of COVID-19 pandemic, especially the rate at

which it sent people to an untimely death, it is logically sound that children will be more gripped by fear of sudden loss of any member of their family and loved ones. This view is supported by Adenubia et al. (2020) and Olaseni et al. (2020) who reported that the pandemic caused their respondents to feel more anxious, worried, restless, and afraid.

Moreover, attempt was made to assess the availability and accessibility of pro-counselling intervention services which were supposed to cushion the perceived effect of COVID-19 on students' wellbeing. Surprisingly, majority of the participants were of the views that those services were nonexistent. Among the crucial services considered nonexistent by majority of the participants were things like "Students are regularly exposed to counselling therapy that could reduce COVID-19 related fear," "School counsellors do render virtual counselling support to parents of students with behavioral concerns," "My school provides regular virtual counselling services to students during COVID-19," and: "Counsellors respond promptly to students' behavioral concerns during COVID-19". Till date, there is dearth of empirical studies on assessment of availability and accessibility of counselling intervention services aimed to mitigate psychological effect of COVID-19 on students' wellbeing.

Furthermore, findings regarding differences in perceived psychological effects of COVID-19 across students' demographic variables revealed a statistically significant difference on school location basis of the participants, with those from urban areas perceiving more effects than their rural counterparts. However, the results were not significant for the remaining demographic characteristics like gender and age, which suggests an inconclusive finding. The possible reason students who reside in urban areas could perceive more psychological effect of COVID-19 than counterparts from rural areas, might be due to avalanche of news outlets in cities, through which disheartening information about Corona can be easily accessed and disseminated, unlike in rural areas where epileptic power supply and poor network services could be impediment to access prompt news.

Lastly, a negative statistically significant relationship was found between perceived psychological effect and pro-counselling intervention services. This result implies that the lower the pro-counselling intervention services available to students (as depicted in this study), the more psychological effects and poor wellbeing they will experience. This finding slightly agrees with Cao et al. (2020) who found that social support was negatively correlated with level of anxiety, which suggests that the more the access to social support, the lesser is level of psychological discomfort such as anxiety and other psychologically-related worries and stress.

## CONCLUSION

Conclusively, it is evident in this study that COVID-19 pandemic had much psychological effect on wellbeing of secondary school children in Nigeria, with higher effect on females than males, and students living in cities than those in rural areas. The key perceived effects of COVID-19 on students' wellbeing, identified in this study, were feeling of boredom owing to perpetual staying at home during the pandemic period, feeling of being disconnected from friends and loved ones, and a slowing down sense of time. Also, the most perceived fear/anxiety related to COVID-19 were fear of death due to COVID-19, being uncomfortable thinking about Corona, and the racing/palpitation of heart when thinking about getting COVID-19. These findings have important implications for government, health agencies and other stakeholders in secondary school education. The Ministry of Health needs to promptly deploy means to curtail the spread of fake and threatened news about COVID-19 and its related problems, which is capable of increasing rate of fear/anxiety about the pandemic among students. Also, the secondary school education board/ management is urged to make school guidance and counselling unit more effective and functional by equipping the unit with capable hands and required facilities to enable them render quality services to students, especially now that the schools are reopening amidst tension of the second and third waves of COVID-19 pandemic. Unfortunately, such intervention services are almost nonexistent in schools presently to cushion the effects and fears identified in this study. This was probably the reason for the higher perceived effect among students. At this juncture, it should be emphasized that high perceived effect of COVID-19 on psychological wellbeing of school children, especially the female folks, portends serious impediment for quality of health and quality of life (one of the key goals of Sustainable Development). Hence, the government and key stakeholders in secondary education are urged to be more proactive in putting appropriate measures in place, so as to ensure that the safety and psychological wellbeing of secondary school children are not compromised even as the nation struggle to overcome the scourge of COVID-19.

## RECOMMENDATIONS

In line with the key findings of this study, the following recommendations are put forward:

- 1) State Ministry/Department of Education is urged to ensure relevant counselling intervention programs are incorporated in any measure designed to reduce the post-COVID-19-related effects on students
- 2) Qualified Counselling Psychologists are expected to be engaged by school administrators to render quality remediation services to students against fear of suspected or anticipated effects of pandemic on their psychological wellbeing.
- 3) In addition to other precautionary measures put in place by the government against COVID-19, students, especially females and those living in urban areas, need to be constantly assured of efforts put in place to guarantee their safety. They also need to be encouraged to shun some news outlets where frequent terrific updates are shared or communicated about Corona pandemic.
- 4) Last but not the least, strategies and/or approaches to help students adapt well and adjust their feelings and emotions during the pandemic and overcome losses associated with crisis events have become an urgent concern for government education authorities and school administrators.

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