

Counselling on the Effect of COVID-19 Lockdown on the Health of Children in Bakasi Local Government Area, Cross River State

Dr. Effiom, Bassey Ekeng^{1*}, Grabiell Egbe², Pastor Lawrence Ekwok³, Dr. Ekaette, Samuel Okpon⁴

¹Department of Guidance and Counselling, Faculty of Educational Foundations, University of Calabar, Calabar, Nigeria.

²University of Calabar, Cross River state Nigeria


³Department of Mass Communication, University of Calabar

⁴Department of educational administration, University of Calabar, Calabar, Nigeria.

Corresponding Author: Dr. Effiom, Bassey Ekeng

DOI: 10.67224/ioasdjbm.2024.v01i02.004

Department of Guidance and Counselling, Faculty of Educational Foundations, University of Calabar, Calabar, Nigeria.

ABSTRACT	Original Research Article	
<p>This study investigated the counselling on the effective of COVID -19 Lockdown on the health of children in Bakasi local government area of Cross River State. To achieve the purpose of the study, four hypotheses were formulated to guide the study. A sample size of two hundred and fifty (250) students were selected for this study. The selection was done through stratified random sampling technique. The questionnaire was the main instrument used for the data collection. The instrument was subjected to face validation by the supervisor who vetted the items developed for reliability. The independent T-test analysis was employed to test the stated hypotheses under study. Each hypothesis was tested at 5% level of significance. COVID-19 pandemic and lockdown has brought about a sense of fear and anxiety around the globe. This phenomenon has led to short term as well as long term psycho-social and mental health implications for children and adolescents. The quality and magnitude of impact on minors is determined by many vulnerability factors like developmental age, educational status, pre-existing mental health condition, being economically underprivileged or being quarantined due to infection or fear of infection.</p> <p>Keywords: Counselling, Covid-19 Era, Children, Health, adolescent, school.</p>	<p>Article History</p> <p>Received: 26-03-2024</p> <p>Accepted: 03-05-2024</p> <p>Published: 13-05-2024</p>	
	<p>Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p>	
		
	<p>Keywords: Counselling, Covid-19 Era, Children, Health, adolescent, school.</p>	
	<p>Keywords: Counselling, Covid-19 Era, Children, Health, adolescent, school.</p>	

INTRODUCTION

From time immemorial, advice and guidance has been one of the ways of assisting somebody who is heavy laden. It helps the beneficiary to bare their mind on issues bugging them as well as seek solutions to them. It is always said that a problem shared is a problem half solved. The emergence of covid-19 is brought with it a lot of changes in the former way of life and could cause mental disorder when not appropriately managed. This is the reason secondary school children should be adequately taught life adjustment and health education so as to enable them scale through in times like this. In schools, children are helped out in special areas aside the academic so as to enable them achieve their dreams and aspirations as well as attain their desired potentials and self-worth. This is why counselling service is necessary in schools especially in secondary schools. Consequently, schools employ the services of the guidance or counsellor. Effiom Bassey Ekeng, Lucy Obil Arop, Maria Enemeba Ngwu, Sarah Ijeoma Ukwiekie (2022), With the growing number of special needs children in the society due to the prevailing economic,

societal and family problems, there is urgent need for the full adoption and enforcement of the education law of the child right act in Nigeria. Apart from bodily changes which could put stress on children, there are other family problems which could aggravate health conditions in children like witnessing domestic violence (Onyekuru & Thompson, 2012). It is obvious that set of children converge in school for active teaching/learning process which constitute additional stress thus projecting them to impending risks of falling for the health challenges if not checked. People react differently to certain events they meet in the line of their daily life events and there is bound to be changes of event which is a natural phenomenon. Effiom, Bassey Ekeng a*, Lucy Obil Arop a , Maria Enemeba Ngwu a , Florence Banku Obi and Godwin Michael Ubi (2022) guidance counselor is needed to unreliable and dangerous sources in search of career information such as cultural peer groups which can lead their graduating into armed robbery and other criminal business unintentionally.

This reaction to changing situations depends on the capacity to cope with such life circumstances be it positive or negative changes, it carries with some kind of stress. The ability to cope with the stress determines the level of coping mechanism one has. If the coping mechanism is low, the person is liable to some mental health conditions like anxiety disorder, eating disorder, traumatic disorder, panic disorder, depression and a host of others (Community Care Health Centre (2021). On the reverse side, ability to identify this abnormality from the onset and seek the services of counselling psychologist results to restoring the patient to leaving a normal life. It is against this back ground that school guidance counsellors should be at alert in helping out to dictate and identify children who exhibit symptoms of health issues and assist such children adjusts of normal life this should be done through counselling for life adjustment and health education in secondary schools. One may feel that children do not get stressed up but that is a fallacy. Many children are so susceptible that the changes that occur in their body system during growth and development are enough to throw them off especially during adolescence period when not well guided and counselled. Dr. Effiom, Bassey Ekeng, Ebuara, Mary Oshama (Ph.D), Dr. Ekwok, Mercy Lawrence, Sarah Ijeoma Ukwieke, Julia Njong Obi, Undie, Akomaye Agwu (Ph.D) and Prof.(Mrs) Elizabeth, G. Akpama(2022), to use one's emotions to facilitate activities such as using their feelings in enhancing thinking and decision making including improving in future reactions. Personal growth and relationship with other or sharing the news of any good fortunes one experiences, which strengthens relationships and wellbeing. To Umezulike & Eneasator (2012), counselling is a continuous process during which a client is assisted in solving personal problems through interactions.

From the above expositions, counselling involves two persons, one of which is heavily laden with issues of life and needed to confide in an expert in the field of counselling psychology to assist them unearth this triggering problems and possibly proffer solutions to them. It is a continuous process in that the counsellor needs to do a follow up with the counselee to ensure that the client does not slide back into the bottom-pit of the initial problems. Life adjustment counselling is a treatment given to somebody who cannot cope with changes that occur in human life the treatment is done usually by a therapist. Sonder Behavioral Health and Wellness (2021) perceived the trauma undergone by people with life adjustment disorder and declared that such people certainly deserve to be encouraged, sensitized and inspired to develop positive concept about themselves failing which the imminent ill health could be aggravated.

To Restore Psychology (2021), stress in one's life is inevitable but the management determines the health. According to the scholars, any disruption in one's routine of life is visited with stress whether positive or

negative change. Those who cannot effectively manage the stress as a result of life transition (life adjustment disorder) are susceptible to mental health challenges which require the services of a counselling psychologist (therapist). Secondary school children are known to be with the age of adolescence and are stressed with the changes that occur within this period. This places them at a very high risk of suffering life adjustment disorder if not well counseled and guided. Some of them find it difficult to cope with these challenges of adolescence not to talk of when saddled with other problems relating to troubled marriage and stuffs like that.

Statement of Problem

The importance of COVID -19 on the health of Children, is over emphasized. This study was carried out to determine Counselling Effect of COVID-19 Lock down on the health of children in Bakasi Local Government Area Cross River State. Global COVID-19 trends suggest that children are far less likely to be infected than adults. Studies also show that a significant number of children are asymptomatic even when they are affected. Children who are symptomatic experience milder symptoms than adults: they may show flu like symptoms like such as fever, cough and cold, or may have gastrointestinal symptoms like vomiting and diarrhea. Very few children would have respiratory difficulties and may require intensive care admission. For instance, in Bakasi Local Government Area, , study Cross River State , how that the proportion of children who went on to develop severe or critical COVID-19 illness with breathlessness, acute respiratory distress syndrome (ARDS), and shock was much lower (6%) than among adults (19%) – especially older adults with chronic cardiovascular or respiratory conditions. A few children died from COVID-19 in Cross River State, Nigeria but their deaths can generally also be linked to health problems not directly related to COVID-19. In addition, there is growing evidence that COVID-19 may have a health impact that goes beyond the respiratory system. For example, in the specific case of children, early evidence suggests that SARS-CoV-2 might be associated with the Kawasaki disease.

Purpose of Study

The general purpose of the study is to determine the influence of COVID-19 on the health of the children in Bakasi Local Government Area, Cross River State.

The specific purpose of the study is to:

1. Find out the infect of COVID-19 On Children?
2. Why children are infected with COVID-19 fare better than Adult?
3. Find out the Covid-19 and the Increased risk of poor nutrition?
4. Find out the influence of Covid-19 on Children in homeless families?

Research questions

1. Can COVID-19 affect the health of Children?

2. Does children get infected with COVID-19 better than Adult
3. To what extent does COVID-19 and increase risk of poor Nutrition affect Children?
4. To what extent does COVID - 19 influence Children in homeless Families?

The Concept of Counselling

To Umezulike & Eneasator (2012), counselling is a continuous process during which a client is assisted in solving personal problems through interactions. From the above expositions, counselling involves two persons, one of which is heavily laden with issues of life and needed to confide in an expert in the field of counselling psychology to assist them unearth this triggering problems and possibly proffer solutions to them. It is a continuous process in that the counsellor needs to do a follow up with the counselee to ensure that the client does not slide back into the bottom-pit of the initial problems. In counselling, communication is very paramount since it is the medium of interaction used throughout the counselling session. The counselee and the counsellor collaborate to solve identified difficulties. The school counsellor has enormous roles to perform in other to help identify and control the escalation of such problems and partnering with the client to lead a meaningful life. Everything about life is centered on change as seen in the changes that take place during growth and development, started schooling a state of mental quagmire unless the services of the counselling psychologist is sought and utilized. Dr. Effiom, Bassey Ekeng, Ebuara, Mary Oshama (Ph.D), Dr. Ekwok, Mercy Lawrence, Sarah Ijeoma Ukwiekie, Julia Njong Obi, Undie, Akomaye Agwu (Ph.D) and Prof.(Mrs) Elizabeth, G. Akpama(2022), Counselling has many types. the key to successful counselling is to know which type you are comfortable.

Counselling Strategies for Life Adjustment

Adjusting to life transition is very delicate especially for those who lack the mechanisms of tackling life changing situations be it in the positive or negative direction. It is premised on this that Swift & Greenberg (2015) expatiated on the eight. management procedures that the counsellor could adopt to keep the client on the right path.

These strategies are as under listed:

1. Provide role induction: expose to the client what counselling for life adjustment involves. Specify their client and counsellors' roles.
2. Incorporate client preferences into the treatment decision-making process:
3. Help plan for appropriate termination.
 1. Provide education about patterns of change.
 2. Strengthen early hope.
 3. Enhance motivation for treatment.
 4. Foster the therapeutic alliance.
 5. Discuss treatment progress with your client.

Covid-19 Era

The COVID -19 Pandemic has added another crisis to the enrolment mix in the Nigeria educational system. School was closed to contain the spread of the virus through school community transmission. the pandemic was said to be highly contagious and according to the World Health Organization, the COVID-19 pandemic could only be contained through strict observance of some basic health protocols such as isolation of suspected carries, wearing of face mask and constant sanitation and washing of hands. Effiom, Bassey Ekeng, Janet Petters, Mercy Lawrence Ekwok, Unimna, Felix Unimna, Favour Idowu Ojedor (2023), Gender-related barriers must be addressed in the planning and rollout of vaccine distribution to reach everyone, especially those most marginalized. Generally, the effect of the pandemic affected the educational system worldwide with 1.53 billion students out of student. Compliance with COVID-19 preventive measure is double edge sword cutting through the fabric of the everyday life of the Nigerian Citizen and the university community to be precise. it has both negative and positive implications on the cumulative health of the university society. Medical experts and researchers in the world work tirelessly towards the production of COVID-19 Vaccines and find more adequate ways to curb the spread of the disease, it is important to note that there is a lot of false knowledge and misconception about the disease in Africa and Nigeria. The WHO says the disease has ignited the spread of false news and teaching. this implies that it affects the health of children in Bakasi Local Government area. Effiom, Bassey Ekeng, Janet Petters, Mercy Lawrence Ekwok, Unimna, Felix Unimna, Favour Idowu Ojedor (2023), Confidence is defined as the trust in the safety and effectiveness of the vaccine, trust in the delivery system as the healthcare system, and the trust in the policymakers.

Method of Data analysis

The data obtained from the administered instrument were analyzed in the (4) hypothesis using Chi-square analysis.

Hypothesis one

There is no significant influence on the effect of COVID -19 on children health. The independent variable in this hypothesis is age. The dependent variable is performance effectiveness of children health. To test this hypothesis, scores of ages was correlated with awareness on Covid-19 vaccination using the independent t-test analysis.

Hypothesis Two

There is no significantly influence the children get infected with COVID-19 better than Adult. The independent variable involved in this hypothesis is Children Health. The dependent variable is awareness on the effect of Covid-19 on children's health. To test this hypothesis scores were correlated with their scores on

awareness of Covid-19 lockdown on the health in children using the independent t-test analysis.

Hypothesis Three

There is no significant influence of COVID-19 and increase risk of poor nutrition which affect children. The independent variable involved in this hypothesis is self-concept. The dependent variable is the effect of Covid-19 lockdown on the health of children. To test this hypothesis covid-19 on children's health scores were correlated with their scores on counselling on the effect of covid-19 lockdown using the One-way analysis of Variance (ANOVA).

Hypothesis Four

There is no significant influence the counselling on the effect of Covid -19 lockdown on the health of children. The independent variable involved in this

hypothesis is Effect of covid -19 lockdown on the health of children. The dependent variable is Covid-19 Lockdown on the health of Children among. To test this hypothesis Effect of Covid-19 lockdown scores were correlated with their scores on Counselling on the effect of Covid-19 lockdown on the health of Children using the One-way analysis of Variance (ANOVA).

Presentation of Result

Hypothesis one

There is no significant influence on the effect of COVID -19 on children health. The independent variable in this hypothesis is age. The dependent variable is performance effectiveness of children health. To test this hypothesis, scores of ages was correlated with awareness on Covid-19 vaccination using the independent t-test analysis Table 1 and Table 2.

Table 1: Can Covid-19 Affect the health of Children?

Sl no	Post COVID 19 Effect	No. of Children respondents	% Children affected
I.	Absence of palliatives	6	5.00
II.	Inflation	8	5.33
III.	Sickness	20	13.33
IV.	Increased transport cost	5	3.33
V.	Despondency	6	4.00
VI.	Loss of Accommodation	25	16.67
VII.	Loss of loved ones/valuables	3	2.00
VIII.	Absence of social amenities	6	4.00
IX.	Persistent hardship	1	0.67
X.	Insecurity	26	17.33
XI.	increased kidnapping	4	2.67
XII.	Increased rape cases	6	4.00
XIII.	Low farm outputs	3	2.00
Total		119	100

Table-2: Can COVID -19 Affect the health of children?

--	N	X	SD	t- Value	P-Value
Yes	120	9.153846	8.561991	1.363835	0.5
No	80	7.950769	7.824822	1.413131	
Total	200	8.5523075	8.1934065	1.38825725	

Hypothesis Two

Gender does not significantly influence the awareness of Covid-19 vaccination among students. The independent variable involved in this hypothesis is Gender. The dependent variable is awareness of Covid-

19 vaccination among students. To test this hypothesis Gender scores were correlated with their scores on awareness of Covid-19 vaccination using the independent t-test analysis. The result of the analysis is presented in Table 2.

Table-3: Does Children get Infected with COVID -19 better than Adult (N=200)

Gender	Variables	N	\bar{X}	SD	t-value	p-value
Male	Yes	80	69.2471	4.15331	.531*	0.5
Female	No	120	72.6332	4.21683		
	Total	200	71.6872	4.72131		

* Significant at $P < .05$ level, $df = 158$.

The result in Table 3 revealed that the calculated t-value of .531 is higher than the p-value at .05 level of significance with 158 of degrees of freedom. With this result the null hypothesis that Children get

infected with Covid-19 better than Adult among students was Accepted.

Hypothesis Three

There is no significant influence of self – aware on the effect. The independent variable involved in this hypothesis is self-concept. The dependent variable is awareness of Covid-19 vaccination among students. To

test this hypothesis self-concept scores were correlated with their scores on awareness of Covid-19 vaccination using the One-way analysis of Variance (ANOVA). The result of the analysis is presented in Table 3.

Table 3: To what Extent does COVID -19 and Increase risk of Poor Nutrition affect children?

Self-concept	N	\bar{X}	SD		
Social self-concept	61	10.08	2.83		
Physical self-concept	48	10.61	2.72		
Emotional self-concept	51	10.00	2.83		
Total	160	10.29	2.79		
Source of variance	SS	Df	Ms	F	Sig of f.
Between group	13.60	2	6.800	.173	.419
Within group	1535.755	157	7.793		
Total	1548.755	159			

*Significant at $P < .05$ level, $df = 2, 157$.

The information in Table 3 shows that there is a significant influence of extent does COVID – 19 and increase of risk of poor Nutrition affect children ($f = 0.0173$; $P = 0.419$). Hence the null hypothesis that there is no significant influence of self-concept on Covid -19 among Children is rejected and the alternative is upheld.

Hypothesis four

Significantly influence the children in homeless families. The independent variable involved in this hypothesis is attitude. The dependent variable is the Extent of COVID-19 on Children. To test this hypothesis attitude scores were correlated with their using the One-way analysis of Variance (ANOVA). The result of the analysis is presented in Table 4.

Table 4: To what Extent does Covid -19 Influence Children in Homeless Families? (N=200)

Attitude	N	\bar{x}	SD		
High	50	70.4459	4.08184		
Mid	30	70.9554	4.24134		
Low	120	72.0000	4.51980		
Total	200	70.9869	4.25964		
Source of variance	SS	Df	Ms	F	Sig of F
Between group	65.900	2	32.950	1.829*	.163
Within group	4071.061	226	18.014		
Total	4136.961	228			

*Significant at $P < .05$ level, $df = 2, 157$.

The result on Table 4 revealed that the calculated F-value of 1.829 is higher than the critical F-value at .05 level of significance with 2 and 157 degrees of freedom. With this result the null hypothesis was rejected. This result therefore implied that, attitude significantly influence the awareness of Covid-19 vaccination among students.

Strategies for counseling Children with mental health challenges occasioned by post COVID 19 realities

The counselor's intervention strategy should focus on:

- i. Helping the youths with poor mental health due to COVID 19 to regain self- confidence,
- ii. Regain self –esteem, seek medical attention for them,
- iii. Canvass for free medication for affected Children,
- iv. Sourcing for and giving palliatives to the Children.

DISCUSSION OF FINDINGS

The result of the First hypothesis Indicate that There is no significant influence on the effect of COVID -19 on children health. The independent variable in this hypothesis is age. The dependent variable is performance effectiveness of children health. To test this hypothesis, scores of ages was correlated with awareness on Covid-19 vaccination using the independent t-test analysis.

The result of the second hypothesis indicates that also, there is no significantly influence the children get infected with COVID-19 better than Adult. The independent variable involved in this hypothesis is Children Health. The dependent variable is awareness on the effect of Covid-19 on children's health. To test this hypothesis scores were correlated with their scores on awareness of Covid-19 lockdown on the health in children using the independent t-test analysis. In tandem with the finding of this study is Choolwe (2020) noted that who avers that woman, particularly in lower and

middle-income countries, do not have access to tests and many of them lack knowledge and awareness of testing, and that empowering women community health workers with adequate awareness creation can play a huge role in scaling testing to ensure it is available to everyone.

The result of the third hypothesis, there is no significant influence of COVID-19 and increase risk of poor nutrition which affect children. The independent variable involved in this hypothesis is self-concept. The dependent variable is the influence of COVID-19 and increase risk of poor nutrition which affect children. To test this hypothesis self-concept scores were correlated with using the One-way analysis of Variance (ANOVA). Also in line with this study is Nicola et al (2020). The authors noted that people have different self-concepts and that they all react differently towards stimuli in the environment, and this could influence their individual awareness of covid-19.

The result of the final hypothesis of There is no significant influence the counselling on the effect of Covid -19 lockdown on the health of children. The independent variable involved in this hypothesis is Effect of covid -19 lockdown on the health of children. The dependent variable is Covid-19 Lockdown on the health of Children among. To test this hypothesis Effect of Covid-19 lockdown scores were correlated with their scores on Counselling on the effect of Covid-19 lockdown on the health of Children using the One-way analysis of Variance (ANOVA). The finding of this research study is in line with Williams (2021), who avers that someone attitude is always a factor in vaccination processes. The author maintained that an individual with care-free attitude will always act in a care-free manner not minding if his life is at stake. Adetola (2019), adds that carefree attitude among people is always one of the major causes of death among the people as most of these people don't have time for anything, even in health emergency cases.

CONCLUSION

Based on the findings of the study, the following conclusion were reached.

1. Covid -19 affect children health than the adult health
2. Children get infected with the Covid-19, a lot of parents lack the knowledge that Covid -19 affect children too.
3. Covid-19 increases the risk of poor nutrition that affect the health of Children.
4. Covid-19 effect homeless children.

RECOMMENDATION

Based on the findings of the study, the following recommendation are made;

1. Parent should give their children the opportunity and take care of their children health.

2. There should be an awareness on the effect of Covid-19 in Children health, Parent should have the knowledge of preventing Covid-19 form affecting their children health.
3. Parent or spouse to ensure balance diet for their children and reduce the risk of poor nutrition.
4. Government should ensure homes or Houses for homeless children and provide shelter for them.

REFERNCES

- Abu-rish EY, Elayeh ER, Mousa LA, Butanji YK, Albsoul-Younes AM. (2021). Knowledge, awareness and practices towards seasonal influenza and its vaccine: implications for future vaccination campaigns in Jordan. *Fam Pract.* 2016;33(6):690–7. pmid:27567011; PubMed Central PMCID: PMC7188315.
- Blakey SM, Abramowitz JS. (2020). Psychological Predictors of Health Anxiety in Response to the Zika Virus. *J Clin Psychol Med Settings.* 2020;24(3):270–8. pmid:29063232; PubMed Central PMCID: PMC7088051.
- Charron J, Gautier A, Jestin C. (2020). Influence of information sources on vaccine hesitancy and practices. *Med Mal Infect.* 2020;50(8):727–33. pmid:32067795.
- Cucinotta D, Vanelli M. (2020). WHO Declares COVID-19 a Pandemic. *Acta Biomedica.* 2020;91(1):157–60. Epub 2020/03/20. pmid:32191675; PubMed Central PMCID: PMC7569573.
- Effiom Bassey Ekeng, Lucy Obil Arop, Maria Enemeba Ngwu, Sarah Ijeoma Ukwieke. (2022). Analysis of Child Right and Parental Influence on Career Choice and Development in Nigeria. *Journal of Advances in Education and Philosophy* 6(5): 301-305.
- Effiom, B.E.; Lucy, O.Arop ; Maria E. N. Florence, B.O. & Godwin M.U. (2022). Exploiting Genetic Counselling as a Tool for the Analysis of Dissociative behaviour and Sub-normality from Conception to Birth among maladjusted Blind, Deaf and Dumb Infants, *Annual Research and Review in Biology*; 37(6): 1-14.
- Effiom, Bassey Ekeng, Lucy Obil Arop, Maria Enemeba Ngwu, Florence Banku Obi and Godwin Michael Ubi. (2022). Exploiting Genetic Counseling as a Tool for the Analysis of Dissociative Behavior and Sub-normality from Conception to Birth among Maladjusted Blind, Deaf and Dumb Infants. *Annual Research & Review in Biology*, 37(6): 1-14.
- Effiom, Bassey Ekeng, Ebuara, Mary Oshama (Ph.D), Dr. Ekwok, Mercy Lawrence, Sarah Ijeoma Ukwieke, Julia Njong Obi, Undie, Akomaye Agwu (Ph.D) And Prof.(Mrs) Elizabeth, G. Akpama. (2022), Emotional Intelligent, Critical Thinking and Counselling on Mental Health in Calabar South Local Government Area Cross River State, Nigeria.

British International Journal of Education and Social Sciences, Vol.09, No.10; Page 1-9.

- Effiom, Bassey Ekeng, Janet Petters, Mercy Lawrence Ekwok, Unimna, Felix Unimna, Favour Idowu Ojedor. (2023). Personal Variables and Awareness of Covid-19 Vaccinations Amongst Secondary School Students in Uyo, Akwa Ibom State, Nigeria. *Journal of Survey in Fisheries Sciences 10*(IS) 4655 – 4667.
- Godwin M.U.; Bassey E.E.; Stella Esuabana. (2021). Effect of Covid-19 Pandemic on Mental Health of youth in Nigeria: The Counsellors Intervention Strategy. *Annual Research & Review in Biology, 36*(5):48-60.
- Helmy YA, Fawzy M, Elawad A, Sobieh A, Kenney SP, Shehata AA. (2020). The COVID-19 Pandemic: A Comprehensive Review of Taxonomy, Genetics, Epidemiology, Diagnosis, Treatment, and Control. *J Clin Med. 2020;9*(4):1225. PMID:32344679.
- Hologue C, Kalb LG, Riehm KE, Bennett D, Kapteyn A, Veldhuis CB, et al. (2020). Mental Distress in the United States at the Beginning of the COVID-19 Pandemic. *Am J Public Health. 2020;110*(11):1628–34. PMID:32941066; PubMed Central PMCID: PMC7542294.
- Kemp S. (2021). Digital 2021: Jordan, retrieved from <https://datareportal.com/reports/digital-2021-jordan>. 2021.
- Lazarus JV, Ratzan SC, Palayew A, Gostin LO, Larson HJ, Rabin K (2020). A global survey of potential acceptance of a COVID-19 vaccine. *Nat Med. 2020;1–4*. Epub 2020/10/22. PMID:33082575; PubMed Central PMCID: PMC7573523.