Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 10, 1143-1157

What Kinds Of Physical Activities Have Suffered In Fiji Due To The COVID-19 Outbreak?: An Analysis Of Primary School Teacher's

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Abstract

People who are already at a higher risk of hospitalization or severe illness due to COVID-19, such as those with illnesses like obesity and diabetes, are often offered medication in the form of physical activities. However, many individuals report finding it difficult to maintain their usual level of physical activity in the face of the epidemic. The purpose of this research was to investigate changes in physical activity (PA) and well-being to determine how the closure crisis affected exercise habits by comparing the exercise habits of primary school teachers in Western Fiji before and after the lockdown. The researchers used a mixed methods approach to collect data from 217 primary school teachers in the Western Division of Fiji. The data was analysed using SPSS version 27. The findings showed decreased aerobic workouts and fitness exercises during the lockdown. Moreover, it showed increased household chores and indoor games during the lockdown. Moreover, the study indicated that more than 50 per cent of the participants did less than 30 minutes of physical activity during the lockdown. When comparing genders, males had a higher mean for physical activity motivation than females. The teachers' location made a significant difference in confidence in undertaking physical activity, and the skills teachers had for doing the physical activity. Public health professionals are concerned about the health effects of the COVID-19 epidemic. Staying at home encourages sedentary habits, which have the unintended consequence of harming health. Health organizations should look for ways to stimulate physical activity and minimize the burden of future comorbidities developing because of a sedentary lifestyle, such as digital remote media training. Sedentary behaviours may raise the likelihood of health problems or worsen existing health problems.

Keywords: COVID-19, Health, Home Exercise, Physical Activity, Teachers, Sedentary behaviour.

Introduction

Many aspects of life have come to a grinding halt because of the COVID-19 epidemic. Distancing oneself from others was the only way to avoid the spread of the epidemic. The pandemic of COVID-19 virus (Horton, 2022) is a health issue that is spreading swiftly over the world (Bentlage et.al., 2020). When compared to previous pandemics happening throughout the world, the COVID-19 pandemic stands at

the top of the list (Salehi-Vaziri et.al, 2022) revealing the pervasive nature of the pandemic. In the initial stage of the pandemic, the whole planet was hit at the same time, and within a very short period, the number of COVID-19 cases surged rapidly. This resulted in the quarantining of billions of people and the closure of the world. The effects of COVID-19 have been felt by practically every person in the whole world, including those in Fiji. Because of the rise of the work-from-home culture, the divide between individual and specialized life has shrunk, and as a result, people's lives are becoming increasingly compartmentalized into these two categories as a result of the lockdown (Ravalli & Musumeci, 2020). People were required to give serious thought to the crucial question of how important it is to maintain their health and fitness at home. Although implementing a community lockdown or containment strategy has been one of the most prevalent and successful approaches to impede the global spread of COVID-19, doing so comes with a number of significant drawbacks. Recent studies conducted all over the world have shown that exposure to Covid-19 has a negative impact on a variety of factors, including social engagement, life satisfaction (Ammar et al., 2020; Lathabhavan & Sudevan 2022), mental well-being, psychological and emotional diseases, sleep quality, and employment status (Xiao et. al., 2020). To learn more about how people are healing from COVID-19, he proposed looking into the long-term impact of the virus on physical activity and health-related outcomes (Park, et.al., 2022). According to Jiménez-Pavón et al., the sudden lockdown of all services and activities, with the exception of a few essential ones, has created a dramatic shift in the routines of persons. In addition to this, it has negatively impacted their mental health by elevating their levels of worry, stress, and despair (Chtourou et. al., 2020).

Furthermore, because of COVID-19, many gymnasiums, stadiums, swimming pools, dance and fitness studios, physiotherapy centers, and playgrounds have been closed across the world (WHO, 2021). Many people cannot engage in normal athletic or physical activities with their friends or family while working in isolation from home. In such circumstances, many people are less physically active, spend more time in front of the television, phone, or computer screen, have inconsistent sleep patterns, and eat deficient diets, which leads to gains in weight in addition to diminishing levels of athletic fitness. Poor families are more at risk from the harmful impacts of home-bound regulations since their living conditions are often subpar and their areas are more constricted, making it harder to get enough physical activity (Nieman & Wentz, 2019). Athletic pursuits such as running and sports are curtailed, yet television viewing, technology use, and social media usage are all up during the lockdown (Clemente et al., 2020). World Health Organization recommends exercise at a moderate or strenuous level for 150 minutes per week. People who engage in this regular exercise report feeling better overall, even during stressful times. Because of this, there are concerns that a lack of access to regular sporting or exercise routines may put a burden on the immune system and physical health in the case of a pandemic, perhaps causing new illnesses or intensifying those that already present due to an inactive lifestyle (Lippi et. al., 2020). Maugeri et. al. 2020, demonstrates that maintaining regular physical exercise is a critical preventative approach for physical and mental health during periods of forced rest. Mental health issues are exacerbated when people cannot engage in conventional forms of physical activity because they are deprived of the social support they need. The lack of support is intensified if the infection kills family members or friends or has a negative impact on economic well-being or access to nutrients.

Workout at home becomes an alternative if space is restricted and individuals lack a gym membership. There are ways to be more active throughout the day for those whose daily routine includes sitting for lengthy periods, such as stretching, performing chores, climbing stairs, or dancing to music (Hargreaves, 2021;

Othman, 2021; Sekot, 2021). Additionally, there is a plethora of free information available, especially for people with internet access, on keeping active throughout the pandemic. People of all ages enjoy physical training and games, which can be coordinated in tiny areas. Strength training, which does not need a large area, helps preserve muscular strength. This type of training is another vital part of being physically active, especially for the elderly or those with physical limitations (Polero, 2021).

There are essential causal links to physical activity (Maier, et.al., 2018) adherence in longitudinal observational research and experimental data, such as individual traits and lifestyle behaviours, environmental aspects, and the kind of activity itself (Kreutz et.al., 2021). Several variables influence adherence in older persons (Rivera-Torres et.al., 2019), including socioeconomic position, educational level, housing arrangements, health status, physical fitness, and levels of depression (Balanza et al., 2020). Ensuring that people take their physical activity as prescribed may substantially influence their lifespan, quality of life, and overall health care expenses in the long term. Because of this, it is crucial to know how the lockdown policy has changed PA behaviours. It is critical to continue the PA routine before the pandemic despite the obstacles. Research on developing techniques and tactics for remote physical activity in the regularly trained population is thus important (Feng et al., 2019) and a comprehensive and integrated approach is needed to alleviate the inactivity induced by COVID-19 (Amini et.al., 2020).

Novel physical exercises involving remote direction and assistance are now possible because of recent advancements in mobile technology. Several at-home aerobics and strength training programs are available, and many are video or app-guided that need no special equipment. Researchers and health organisations may create better tactics to attract users to PA depending on the viability of at-home, web-based interactive exercise programs (Lopez,2020). We predicted that quarantine and closure of exercise facilities would reduce the number of exercises the individuals could get each day, modify their daily calorie intake, and cause them to gain weight. According to research conducted across the globe, the closure of the Pandemic has a deleterious effect on physical activity (Puccinelli et al., 2021). The researchers wanted to acquire a better understanding of how the lockout policy impacts the PA levels and exercise habits of Israeli recruits, thus they investigated the association between these behaviors and weight growth. They also evaluated the trainees' abilities to employ digital technology at home to continue leading healthy lifestyles despite the COVID-19 pandemic (Robinson et al., 2021). Fiji's pursuit of the Sustainable Development Goals, notably SDG 3 (Good Health and Wellbeing) and SDG 4 (Quality Education), will benefit greatly from this research.

Research Objectives

To ascertain the effect of Covid 19 on primary school teachers' daily exercise routines. Additionally, it will highlight alternative physical activities that people engaged in during the Covid 19 pandemic. Finally, it will make recommendations for pandemic-related activities.

Methodology

The study used a mixed approach to acquire a comprehensive knowledge of people's experiences throughout the epidemic, as well as their efforts to lead a healthy way of life. The survey was conducted with primary school teachers of the Ba and Tavua districts in Fiji, who participated voluntarily. The experiments were carried out in accordance with accepted ethical standards, and participants gave their informed consent before taking part in them. An informed consent form has been completed and the study is in accordance with all applicable requirements. Participants' identities were kept secret by ethical research confidentiality requirements. The investigators handed the questionnaires to participants during their visits to local schools, in the districts of Ba and

Tavua, who were selected randomly by picking from the hat carried out under the supervision of the district education office. The questionnaire was completed and returned the same day by all the participants.

Population and Sample

Oceania's island nation of Fiji is a tropical paradise that sits in the middle of the South Pacific Ocean. Comprises around 332 islands, with permanent settlements on 110 of those islands. Fiji is located about in the middle of the Pacific Ocean between Hawaii and New Zealand, and its neighbours include Vanuatu, Tonga, and Samoa. A little over 800,000 people call Fiji home. It is a multicultural country. Fiji's Ba Tavua districts are home to 50 elementary schools. (MEHA, 2021). Five hundred nineteen teachers were the study's population. The Krejcie and Morgan Table (Krejcie & Morgan, 1970), which estimates sample size using a standard method, has developed a particular table for estimating sample size from a population of 217 primary school teachers. Sample size determination is becoming increasingly important in empirical research because of the necessity for a representative statistical sample. If there was an existing gap, Krejcie and Morgan came up with a simple reference table to establish sample size, which is now utilized to assess sample size in current times (Bukhari,2021).

Demographic representation of the sample

Table 1

		Frequency	Percentage
Gender	Male	55	25.3
	Female	162	74.7
Location	Rural	19	8.8
	Urban	126	58.1
	Semi-Urban	72	33.2
School Type	Government	164	75.6
	Private	18	8.3
	Public	35	16.1

Research Tools and Analysis

According to a literature study and the author's previous experience working with primary school teachers, thus the questionnaire was created by the researchers which also went through the validation and reliability test. It enumerated 12 characteristics relating to the physical activity of teachers before and during the COVID-19 epidemic. The teachers were requested to rate on a seven-point scale (1 =very low;7= very high), according to how much physical activity they performed during the lockdown and the factors preventing them from the training. This provided the quantitative data. In addition, the teachers were required to contribute to motivating others to do physical activity and maintain it during the lockdown. This comment was included in the qualitative data collection process. SPSS version 27 was used to examine the quantitative data acquired from the questionnaire. Descriptive analysis of frequencies was done to get the results for the physical activity done before and during the lockdown. A paired t-test was used to find the difference between two variables before and during the lockdown compared with gender and location. Some quotations from the free-response section are presented. Studies in Teaching and Learning, Vol. 24 (1), June 2002, examines how teachers see their work as teachers. A few words may convey a decadent

richness of meaning, as (Ruddock, 1993: 19) suggests regarding qualitative data.

Results The table below shows the frequency distribution of the physical activity performed by primary school teachers before and during the lockdown.

Table 2 Physical activity before and during lockdown

	Before		During	
Activity	Frequency	Percentage	Frequency	Percentage
Aerobic Workout Cycling, Walking, Running, Jogging, Dance, Zumba)	53	24	22	10
Household Chores (Gardening/Farming)	115	53	152	70
Indoor games with family members	0	0	15	7
PE/fitness classes	49	23	28	13

Twenty-four per cent of participants did aerobic exercise before the lockdown, but only 10 per cent performed aerobic workouts during the lockdown. A reduction in the movement among the participants was due to the unsuitable environment at home to do the aerobic activity. Most participants were cycling, walking, and running in parks or along the road before the lockdown. The home environment could not provide the space and motivation for the same activity. Fifty-three per cent of the teachers did household chores before lockdown, and 70 per cent did household chores during the lockdown. As per the discussion with the teachers through the interview, most female teachers take their housework as exercise, which they think is enough for physical activity. Some worked in gardens as a leisure activity and to have some produce from the gardens to supplement their shopping during the lockdown. More than 50 % of the participants did household chores before the lockdown. It is a general perception of teachers to do gardening, as it will benefit the family with fresh produce and provide for some physical activity.

Moreover, before the lockdown, teachers did not play any indoor games, but 7% of the teachers started playing indoor games with their family members as other leisure activities such as billiard shops, and horse race centres were closed. There was a high reduction for a fitness class before lockdown compared to during lockdown. The decline of 10 per cent was due to the lack of facilities at home, and the person assisting in physical training was not available during the lockdown.

Table 3 shows the time spent on physical activity by the participants before and during the lockdown

Table 3 Time spent on Physical activity before and during lockdown

	Before		During	
Time	Frequency	Percentage	Frequency	Percentage
< 30 Mins	76	35.0	110	50.7
31-45 Mins	82	37.8	88	40.6
46-60 Mins	20	9.2	12	5.5
61-90 Mins	39	18.0	7	3.2

Before the lockdown, 35% of the participants did physical activity for less than 35 minutes. Surprisingly, the percentage increased to more than 50 % during the lockdown, alarmed by the lockdown, people needed to do more physical activity to promote a healthier lifestyle. 37.8% did the physical activity for 31-45 minutes. There was a minor increase during the lockdown to 40.6 per cent. For those teachers working for 61-90 minutes, the percentage dropped from 18 % to 7 % as most of these teachers were engaged in team games before COVID-19 which was not possible during the lockdown phase.

Table 4 shows the paired-sample t-test for how motivated the teachers were to take part in physical activity regularly before and during lockdown

				95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Lower	Upper	t	df	Sig. (2-tailed)
Motivation for PA	Gender	**3.014**	**1.556**	**2.806**	**3.222**	**28.533**	**216**	**0.000**
		0.751	1.168	0.595	0.907	9.475	216	0.000
	Location	**2.516**	**1.528**	**2.312**	**2.721**	**24.260**	**216**	**0.000**
		0.253	1.099	0.106	0.401	3.396	216	0.001

Bold data for before lockdown, Significant at 0.05

The male and female desire for physical exercise before and after lockdown differs significantly; therefore, the null hypothesis is rejected, and the alternative notion is accepted. When comparing male and female motivation for physical exercise based on gender, there is a substantial difference in motivation before and after the lockout. Furthermore, for the teachers' location, a considerable discrepancy exists between the mean values before and during the lockdown, which means teachers from different places had a difference in motivation levels. The mean scores for cause before lockdown are higher than during lockdown. Physical activity is a social activity where teachers from groups within their locations do some activity. During the lockdown, it was not possible, so the morale of the teachers went down, thus there was a reduction in physical activity.

Table 5 paired sample t-test results for how confident the teachers were to take part in different physical activities

		Mean	Std. Deviation	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Confidence in PA	Gender	**3.286**	**1.504**	**3.085**	**3.487**	**32.192**	**216**	**0.000**
		0.940	1.155	0.786	1.095	11.988	216	0.000
	Location	**2.788**	**1.503**	**2.587**	**2.989**	**27.317**	**216**	**0.000**
		0.442	1.261	0.274	0.611	5.168	216	0.000

Bold data for before lockdown, Significant at 0.05

The Sig. (2-Tailed) value for confidence in various physical activities is 0.00, less than

0.05. As a result, we may infer a statistically significant difference in the mean of numerous physical activities performed by men and women. Because our Paired Samples Statistics box indicated that the mean number before the lockdown was more significant than the mean number during the lockdown. We can infer a significant difference in confidence for various physical activities before and during the lockdown. Furthermore, when the teacher's location is seen, the p-value of 0.00, which is less than the significance threshold of 0.05, shows a significant difference in confidence before and during the lockdown. Before lockdown, the mean value is much higher than during lockdown when the location is compared.

Table 6 shows paired sample t-test results for how has COVID 19 Improved fitness/skill in different physical activities

				95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Lower	Upper	t	df	Sig. (2-tailed)
Improved fitness and skills	Gender	2.770	1.338	2.591	2.949	30.501	216	0.000
		1.051	1.037	0.912	1.189	14.920	216	0.000
	Location	2.272	1.594	2.059	2.485	20.993	216	0.000
		0.553	1.101	0.406	0.700	7.402	216	0.000

The results in table 6 indicate a significant difference between males and females before and during lockdown; thus, the null hypothesis is rejected, and the alternative view is accepted. Furthermore, for the teachers' location, there is a significant difference in the mean values of before and during the lockdown. Teachers from different areas had a difference in their fitness skills. The mean scores for fitness skills before lockdown are higher than during lockdown.

Discussion

The present comprehensive analysis of 217 primary school teachers indicated a significant difference in physical activity motivation, physical activity confidence and fitness level before and during the lockdown. All the verbless had a higher mean before the lockdown than during the lockdown. It is similar to the findings of prior studies, which found that the level of physical activity decreased during lockdown among healthy adults and children compared to before lockdown. Although government authorities and health or exercise professionals have advised staying active throughout the epidemic and self-quarantine, many people are choosing to stay inactive (Dwyer et. al., 2020). When physical activity levels were stratified according to pre-lockdown levels, three investigations found that those who were more active before lockdown had a greater likelihood of experiencing higher physical activities declined (Di Corrado et. al.,2020; Giustino et. al., 2020; Pillay et. al., 2020), Moreover, Dor-Haim et al (2021), In conclusion, this study showed a negative effect of lockdown and social distancing policy on PA levels and weight gain. those who exhibited higher PA levels gained less weight.

Physical activity promotion should target presently sedentary individuals and those who have high physical activity levels outside of lockdown during lockdowns. It is proposed that digitally based physical exercise be encouraged as a precaution against the occurrence of additional COVID-19-related restrictions (Like PA applications, video fitness programs (online), or physical training). Research has shown that there are favourable links between

digital-based initiatives and, in general, PA while a facility is under lockdown. These connections were observed during the inaugural COVID-19 lockdown, and they resulted in positive results (Yang et al., 2020).

Similarly, top athletes' training volume and intensity decreased significantly during the lockdown, resulting in relative declines in sport-specific physical performance assessments before lockdown (Amini et.al, 2020; Muriel et. al.,2020). The decline in athletic preparedness for the competition was noticed and considered by practitioners dealing with top athletes, particularly when it comes to training loads and competition scheduling after lockdown.

Additionally, the number of workers working remotely expanded internationally during the lockdown, and Work from home, often known as WFH, has emerged as a policy priority in the majority of countries (Vyas & Butakhieo, 2021). As a result, the amount of physical activity usually done was significantly reduced. Adults in the United Kingdom (mean age 50.5 years) accumulated 195 minutes of physical activity a week. According to a prior study, individuals before lockdown report much higher overall physical activity than those during lockdown (Qin et al.,2020). Additionally, with schools closed, many parents juggled home education with working from home; in the United Kingdom, 85 per cent of workers with school-aged children worked from home. Thus, a reduction in possibilities for physical activity and increased duties may have contributed to the decline in physical activity (Yang & Koenigstorfer, 2020).

The bulk of the research demonstrated that sedentary lifestyles increased during the lockdown. It is expected that many individuals work from home, resulting in more sedentary time and screen time (Stockwell et al., 2021). Additionally, some individuals may have struggled to stay active throughout the lockdown, with most gyms, recreational, and athletic facilities closed and outside time-restricted or prohibited. With extra free time, many people may turn to sedentary activities such as reading, playing video games, and watching television (Buoite et al., 2021).

Exercise and other forms of physical activity are two examples of simple decisions that may be made to lead a healthier lifestyle; however, they are not the only options. The findings of the study demonstrated that following the lockdown, the majority of instructors cut back on the amount of time they spent engaging in physical exercise, as well as the intensity of the activity they participated in. A similar discovery was made by Ammar et al. (2020), COVID-19, who discovered that house confinement led to a decrease in all levels of physical activity, a rise of 28 per cent in the amount of time spent sitting daily, and an increase in the frequency of unhealthy food consumption habits. Similar findings have also been reported by other scholars (Ammar et al., 2020; de Oliveira Neto et al., 2020). On the other hand, these sudden adjustments had an effect on everyone, as a large number of individuals regularly participated in physical exercise in gymnasiums, on the ground, or in other locations before the lockdown. In order for people to remain healthy and productive and to avoid illness and disease, they need information. The instructors need to have a healthy diet in order to acquire new knowledge and abilities that they can then pass on to the pupils in the form of lessons. In spite of the fact that being confined to one's house for an extended period of time can make it difficult to maintain one's physical fitness, the inability to engage in any form of physical activity, the absence of any form of social interaction, the feeling of helplessness, and uncertainty can all contribute to mental and physical health problems (Ammar et al., 2020). Varshney et al. (2020) found that when people adjust their existing lifestyle to acquire COVID-19, they run into psychological problems.

In addition, having strong management skills, enough psychological resources, and engaging in regular physical activity might be helpful in addressing such health-related challenges when they arise during the COVID-19 Pandemic (Chtourou et al., 2020). (Owen et al., 2010;

Lavie et al., 2019; Jiménez-Pavón., 2020) Research has shown that engaging in physical activity and exercise can assist our bodies in better coping with the negative effects of a variety of conditions, including diabetes, hypertension, cardiovascular disease, and respiratory disease. According to Bentlage et al. (2020), in a recent evaluation of 31 published studies, physical dormancy because of current pandemic constraints is a serious public health problem that is a crucial predictor of decreased life expectancy and a range of physical health disorders (Jurak et al., 2020). It is anticipated that regular physical activity, in conjunction with other preventative steps, may assist in mitigating some of the negative effects the COVID-19 pandemic will have on people's health (Chen et al., 2020). Researchers from the University of Virginia Health System (Yan and Spaulding, 2020) claim that engaging in regular physical activity has the potential to lower the risk of respiratory failure, which is one of the leading causes of mortality among COVID-19 patients. Exercise and other forms of physical activity are also essential for maintaining mental health (Stathi et al., 2020; Lehnert et al., 2012). Exercising regularly has been shown to improve mental health and overall well-being, according to a substantial body of research (Mazyarkin et al., 2019). Individuals are going to have a difficult time satisfying the WHO's overall standards (150 minutes moderate to mild PA or 75 minutes intensive PA per week or both). Activities that are beneficial to one's health, such as playing sports or going to the gym on a regular basis, are not possible during this epidemic (Bentlage et al., 2020). The subject of how individuals might survive and keep their physical fitness in the face of limitations brought on by the pandemic (home confinement and shuttered gyms, parks, and fitness centers) is still an important one.

People have been confined to their homes since the beginning of this epidemic, and as a result, they have been experiencing a wide variety of issues related to their mental health as well as their physical fitness and health (Ammar et al., 2020; Chtourou et al., 2020; Xiao et al., 2020). However, research addressing the challenges of fitness enthusiasts, who used to dedicate a large amount of time to regular workouts in order to keep their physical fitness, health, and attractiveness, has not yet been published in relation to the current pandemic epidemic. According to accounts, the unique experiences of such people, the challenges they had with their well-being, and the ways in which they coped with these concerns during the COVID-19 epidemic have remained largely unexplained and investigated.

In addition, since it has been so extensively reported, the COVID-19 epidemic has made it more challenging for people to keep up their typical levels of physical activity while they are at home (Kaur et al., 2020). Numerous studies have been conducted to investigate the effects of COVID-19 on the general public's physical activities (Ammar et al., 2020; Chtourou et al., 2020; Xiao et al., 2020). These studies have shown that there has been a significant decline in the frequency and intensity of various forms of physical activity and exercise, in addition to negative effects on both physical and mental health. There is accumulating data that points to ways to encourage people to engage in home-based training and fitness activities (Ammar et al., 2020; Chtourou et al., 2020; de Oliveira Neto et al., 2020). All these examinations, however, were carried out when the epidemic was still in its earlier phases. One or more preliminary studies have been carried out to investigate how individuals dealt with the COVID-19 outbreak and the associated lockdown and house confinement challenges. It would be fascinating to observe the manner in which people adhere to and profit from the at-home workout suggestions, as well as the level to which they do so.

Despite the concurrent rise in the prevalence of sedentary lifestyles, overall levels of physical activity have significantly dropped during the COVID-19 shutdown. There is evidence that better physical health outcomes are associated with higher levels of physical activity and lower levels of a sedentary lifestyle, and there is developing evidence that exercise can

positively improve COVID-19 findings (Ali, et.al, 2021). In the case of lockdowns, it is advised that public health professionals advocate measures to enhance physical activity and minimize sedentary lifestyles, particularly in people with medical disorders that can be improved by physical exercise. There shall be professional development sessions on carrying out physical activities without using exercise machines and limited space. TV programmes should encourage people, and more incentives shall be given to people for backyard Gardening. Females should be encouraged to take part in physical activity as well. As healthy living and well-being are one of the stainable development goals, UNESCO and other non-government organisations must pay more attention to promoting physical activity in schools and communities where teachers shall be the front liners. The media can help individuals better understand the health benefits of exercise. A variety of physical activities unique to this period can be introduced as well.

Abbreviations:

PA- Physical Activities

WHO- World Health organization

Ethical Approval: Human subjects were used in this study, and prior approval from the Fiji National University Human Research Ethics Committee (FNUHREC) was obtained with reference (FNU-HREC-21-13).

Funding: There is no funding to declare for this study.

Declaration of Conflict of Interest: Authors declared no conflict of interest

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