International Journal of Nursing and Health Care Research

OPEN ACCESS

Rezq KA, et al. Int J Nurs Health Care Res 6: 1393

www.doi.org/10.29011/2688-9501.101393

www.gavinpublishers.com

Review Article

GAVIN PUBLISHERS

Impact of Covid-19 Quarantines and Lockdown on Physical Activity and Lifestyle in Arab Countries: A Systematic Review

Khulud Ahmad Rezq[1], Jesusa V. Gutierrez[1], Khawla Daoud[1], Mastoura Kames Gaballah[2*], Adam Mahmoud Salameh Khraisat[3]

[1]Department of Nursing, Faculty of applied medical sciences, University of Tabuk, Saudi Arabia

[2]Medical Surgical department, Almoosa College of Health Science & Faculty of Nursing, Cairo University, Egypt. https://orcid.org/my-orcid?orcid=0000-0003-4505-999X.

[3]Nursing Program, Health Science Faculty, Higher Colleges of Technology, Sharjah, United Arab Emirates

[*]**Corresponding author**: Mastoura Kames Gaballah, Medical Surgical department, Almoosa College of Health Science & Faculty of Nursing, Cairo University, Egypt

Citation: Rezq KA, Gutierrez JV, Daoud K, Gaballah MK, Khraisat AMS (2023) Impact of Covid-19 Quarantines and Lockdown on Physical Activity and Lifestyle in Arab Countries: A Systematic Review. Int J Nurs Health Care Res 6: 1393. DOI: 10.29011/2688-9501.101393

Received Date: 11 January, 2023; **Accepted Date**: 24 January, 2023; **Published Date**: 30 January, 2023

Abstract

Background: The COVID-19 Pandemic forced some countries to quarantine, which affected all kinds of activity among citizens. COVID-19 and governments forced all citizens to work from homes and closed all recreational, educational, and practical institutions. The study aimed to test the impact of COVID-19 on physical activity among Arab countries among different age groups during the quarantine. **Materials and Methods:** Six medical databases (MEDLINE, CINAHL, ProQuest and PubMed Scopus, EBSCOhost, and Science Direct databases) related to the publication of research about the impact of quarantine on physical activity in Arab countries were used. The inclusion criteria were papers done among Arab countries with sample of more than 50 participants. The PRISMA flow diagram was used in reporting the selection process for the articles. **Results:** 21 studies met the inclusion criteria, 17 were cross-sectional studies, three systemic reviews, and one a retrospective study. The highest total participants were 22,112, and the lowest was 92. The review revealed the significant impact of quarantine on physical activity, which included increased sedentary life, consumption of food, weight gain, decreased walking, shopping, transporting, and movement during leisure time. **Conclusions:** Quarantine was considered effective in controlling the spread of the infection during the pandemic; however, it also brought negative effect on the physical activity and health in general. Imposing quarantine for long periods should come with related educational programs on how to maintain adequate physical activity and healthy lifestyle while on quarantine

Keywords: COVID-19; Corona; Physical activity; Quarantine; Pandemic

Introduction

COVID-19 is an infection caused mainly by the SARS-CoV-2 (SARS-CoV-2) virus, which was initially discovered in Wuhan, China, in December 2019. There were more than 15 million persons infected with the virus in approximately 210 countries worldwide with an estimated 600,000 deaths [1]. There has not been a pandemic of this magnitude since the Spanish Influenza outbreak in WWI. The global economy, social connections, and individual lifestyles have all been hit hard by this epidemic [1]. Because of the pandemic of COVID-19, the world was in a life-threatening scenario. There has been an increase in COVID-19 instances in Saudi Arabia from February 2020. Efforts to stop the spread of the virus in Saudi Arabia will begin in March 2020, when the government will implement a series of lockdown measures, including quarantining persons at home, prohibiting travel, and implementing social distancing laws. Everywhere there has been a quarantine; there have been reports of health and socioeconomic changes [2].

Because of the current COVID-19 epidemic, governments in several impacted nations have implemented strict lockdown preventive measures including quarantine. To halt the spread of the outbreak, businesses, schools, and other non-essential services and facilities were closed, as well as any non-essential service or company. Although the purpose was to control the spread of the virus, people's health was also compromised by the quarantine restrictions, which sparked bad habits and sedentary lifestyle. In addition, the lack of access to sports facilities and a lack of social mobility contributed to a lack of physical exercise [3].

Physical inactivity and sedentary lifestyle have a strong impact on health, body weight, sleeping pattern and daily living activities especially during the quarantine and lockdown period [4]. According to the WHO (World Health Organization), 31% of people aged 15 and over are physically inactive, and this unhealthy lifestyle is responsible for nearly 3.2 million deaths per year (Physical activity. [Internet]. [cited 2022 Feb 27]) [5]. Mattioli et al., [6] studied the effect of Quarantine during the COVID-19 outbreak and changes in eating pattern and physical exercise are some of the outcomes identified. For persons who have been placed in quarantine, a global effort to promote a balanced diet and physical activity is necessary [6]. Maugeri et al., [7] found that quarantine throughout Italy caused a considerable reduction in total week physical exercise energy consumption throughout all age categories particularly in males. This reduction has a detrimental impact on psychological and physical wellbeing, implying that the decrease in total physical activity has a severely unfavourable effect on psychological health and the community [7].

According to this scientific data, maintaining a normal exercise regimen is an important approach for health and wellbeing throughout a forced rest time, such as the present coronavirus emergency. It was shown that when quarantine efforts were implemented in the two research regions, the COVID-19 pandemic had an effect on the number of seniors participating in organized physical activity programs. Apart from that, older persons showed a desire to engage in physical exercise on their own, even if they had previously decreased their engagement in-group physical activities even before the quarantine. Keeping seniors engaged physically in a small area requires simple solutions that are also safe. In this setting, a national program to encourage older individuals to engage in physical exercise in their own homes is vital. At the same time, it concludes that the elderly should be aware of the importance of being physically active at home [8].

The World Health Organization (WHO) defines physical exercise as "any movement of the body requiring the expenditure of energy" [9]. The term "physical activity" encompasses all forms of movement, from leisurely strolls to commuting to and from work. Physical exercise that is both moderate and robust is beneficial to one's health [9]. Non-communicable illnesses, including heart attacks, diabetes, stroke, and various malignancies, can be prevented, and managed through regular physical exercise. Aside from lowering blood pressure and maintaining a healthy weight, it has been shown to benefit one's mental health, well-being, and overall happiness [9].

Global action on physical activity 2018-2030: extra active people for a healthy mind and body provides a blueprint of efficient and feasible national policies that can help support, maintain, and promote physical activity through cross-government and multispectral collaborations in all settings as part of a collaborative care approach. Regular physical activity such as walking, cycling, or exercising benefits both body and mental health for all ages, helps improve general feelings and weight management, and reduces the risk of depression and chronic diseases, which can increase susceptibility to infections of COVID-19 [9]. The effects of regular physical activity on one's health are immeasurable. It is preferable to engage in some physical exercise than to do nothing at all. People may easily meet the government's suggested levels of physical activity by being more active during the day in fairly easy ways. To boost physical activity levels, governments and communities alike must take steps to make sure that everyone has access to greater opportunities for physical exercise. This year's coronavirus illness (COVID-19) pandemic led to significant lifestyle adjustments, which may have resulted in detrimental alterations to physical activity, sedentary behavior, and food intake [10]. Particularly in KSA, lockdown was implemented on March 15, 2020. Multiple studies reported effects of Covid-19 lockdown on lifestyle that highlights changes in sleep, physical activity, diet, stress and mental health.

In the past, researchers in Saudi Arabia looked at how the COVID-19 quarantine affected physical activity. On sleep changes, lockdown has been associated with later and longer sleep on weekdays, lower levels of social jetlag and a delayed Chrono type as revealed in the study done in Argentina [11]. According to cross-sectional research, COVID-19 quarantine had a detrimental influence on physical activity, with 52 % reporting a decrease in practice, which related to a considerable weight increase (p= 0.001) [2]. After examining the population's food patterns, including physical activity during each lockdown, they decided that this information may be used to forecast the health and well-being of the people after the epidemic has passed. On the other hand, Al-Shahry, et al., [12] according to the findings of this study, which looked at the impact of a COVID-19 quarantine on Saudi Arabian residents' physical health, there has been a 56.50 % gain in weight and an increase in sleep hours. Walking and gym training are both declining in popularity at the same time, by 42.4% and 41.3%, respectively [13]. Before COVID-19, the gym activity rate was highest in 28.3 percent of participants, and the activity rate was three times a day and was decreased during COVID to NO ACTIVITY in 41.3 percent of participants. Around 30.4 % were not concerned about walking, and 32.6% were taking 5000 steps before this pandemic. During this pandemic, most of the participants (42.4%) were not concerned about walking at all. Raiola et al., [13] surveyed whether physical activity has altered throughout the covid-19 quarantine. The results showed that 64.17 percent of the sample knew about smart fitness and thought it was a fun activity, and that the home environment had a significant impact on that knowledge on a scale of 1 to 5. According to the findings, athletes were not deterred by COVID-19 and were able to adjust to the new environment swiftly. However, even though the setting at home has been shown to have a significant impact on the motivation to exercise, they are looking forward to returning to the gym as soon as they can [14].

Another study examined the effect of the COVID-19 pandemic and quarantine period on the physical activity and dietary habits of college-aged students. The result of this research study shows that physical activity decreased at vigorous (2 days/week to 1 day/week, $p < 0.001$), moderate (4 days/week to 1 day/week, $p < 0.001$), and light (4 days/week to 2 days/week, $p < 0.001$) intensity levels. On the other hand, Sharara et al., [15] conducted a systematic assessment of the literature research article. They mentioned that physical inactivity, gender, and culture in Arab countries are associated with excess weight and adverse health outcomes. They discovered 172 articles that met their inclusion criteria [15]. While the World Health Organization provides standardized statistics for virtually all nations, journal publications demonstrate considerable variation in definitions, measurements, and methods. Inactivity is widespread among adults and children/adolescents throughout nations and is particularly prevalent among women. While several causes of the lack of physical activity in the zone (poor education, age, and gender) are shared with the other locations, certain characteristics of the region's cultural background appear to be especially unfavourable to physical exercise.

Arab adults and children/adolescents are physically inactive. Al-Musharaf et al.,[14] did extensive research on changes in lifestyle connected with COVID-19 quarantine among many young women in Saudi Arabia and stated that factors related to weight, like physical activity, stress, coffee consumption, and sleep hours, highlight the significance of carefully considering those at risk throughout future circumstances. These characteristics may also help implement future lockdown rules and support individuals most in risk of weight gain [14]. Additionally, López-Valenciano et al., [16] did a systematic evaluation to determine the effect of the COVID-19 lockout on university students' physical activity levels. Ten studies were chosen for this investigation. Physical activity levels were determined using questionnaires and accelerometers in ten trials (1study). In nine investigations, a substantial decline in physical activity levels has been seen. Five studies found a drop in mild/light physical activity (walking) of about 32.5 to 365.5 % due to the pre levels. In contrast, seven studies found a reduction in vigorous/high physical activity of about 2.9 to 52.8 %. Vigorous, walking, total physical activity, moderate, and vigorous have been lowered among university students from many nations throughout the COVID-19 pandemic confinement period.

The results of the current study will be of great help by focusing on the significance of consistent physical activity and exercising during the Corona pandemic to strengthen the immunity of individuals to be able to overcome infection and to reduce the risk factors of the chronic diseases. They can also provide safe and quality care of life to the community and successfully help the community pass this pandemic period. The present study aims at exploring the status of the impact of COVID-19 on physical activity in Arab countries among different age groups.

Materials and Methods

Electronic Search

A comprehensive systematic literature search was conducted using MEDLINE, ProQuest, CINAHL, PubMed Scopus, Science Direct, and EBSCOhost as databases. The following key words have been used for searching: "Physical Activity"; "Exercise"; quarantine, lockdown, lifestyle, and sleeping pattern. Further screening the authors investigated the title and abstract for assessing the inclusion criteria then the full article for the harmonize of the result. The study selection and examining the exclusion and inclusion criteria were based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [17].

Exclusion and Inclusion Criteria

The current systematic review included studies published during the period from April 2020 and April 2021, without restriction to the language of the article. Moreover, the current study includes assessment and intervention studies carried out in the Arab countries (African Continent: Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia, Somalia, Sudan, Comoros, Djibouti and Asian Continent: Bahrain, Iraq, Jordan, Saudi Arabia, Kuwait, Lebanon, Oman, Palestinian Territories, Qatar, Yemen, Syria, and the United Arab Emirates. Arabic-speaking countries were defined as the 22-member countries of the League of Arab States. The keywords used to conduct the search are listed in Table 1. The studies with a maximum of fifty participants and qualitative research and dissertations that had not undergone peer review were excluded from the review.

Data Extraction and Analysis

Endnote was used to eliminate the duplication of the references. Data summarized for each study was based on the article information in terms of author name & publication year, country, and type so the study, sample size, measuring parameter and the study finding. The result reported by using the physical inactivity and life style in relation to the changing in the body mass index and sleep pattern.

Field	Search Term
Arab countries	Terms: Arab, Arab countries, Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, the United Arab Emirates (UAE), or Yemen.
Physical Activity	Arabic Physical Activity, or middle east physical activity, physical exercise, lifestyle, and sleeping pattern
COVID 19	Pandemic, Quarantine, Corona Virus 19, lockdown, COVID-19

Table 1: The search terms is summarized below.

Results

The authors retrieved 32 published paper, 21 of them met the inclusion criteria. Saudi Arabia was the country where the most significant research was done. (12 studies), while the rest were distributed as follows: MENA (2 studies), Lebanon (1 study), Qatar (1 study), Jordan (2 studies), Kuwait (1 study), UAE (1 study), and Morocco (1 study). Collectively, the studies include 48. 174 participants. Of the 22 papers, 18 were conducted among the general population, while 2 were performed among children and adolescents. One study was conducted among heart failure patients, and another was conducted among undergraduate students. Respondents in most of the selected studies were more than 60%.

The data were collected electronically in all investigations. There was a resemblance in the kind of individuals throughout the research we looked at. Most of the research has focused on the broader population of adults. Out of these studies, two studies included adolescents and children. One study included heart failure patients, and another included undergraduate physical therapy students (Tables 2-6). Most participants in our reviewed studies reported that their physical activity decreased (57%) as their sedentary lifestyle increased, their weight increased during quarantine (33%), and their consumption of restaurant food increased (23%) (Tables 2-6). Moreover, our reviewed studies revealed that COVID- 19 had a negative impact on physical activity and was correlated with weight gain, sedentary lifestyle, eating unhealthy food and negative mental health during quarantine (Tables 2-6).

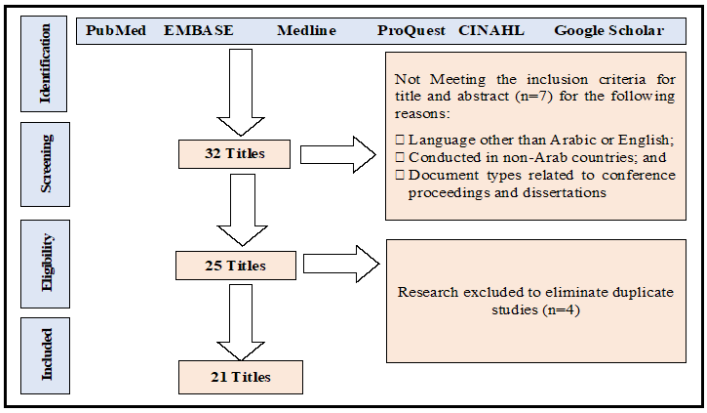

Figure 1: Selection process workflow. (The PRISMA flow diagram).

#	First Author / year	Country	Type of Study	Sample Size	Measured Parameter	Main Results
1	Mohammad Zubair,2020	Saudi Arabia	Cross sectional survey	337	Level of awareness, knowledge, and behaviors toward physical activity among Saudi residents.	The prevalence of physical inactivity among participants is very high
2	Leila Cheikh Ismail, 2020	MENA	Cross sectional survey	2970	Observing Middle Eastern and North African (MENA) region inhabitants' diet and lifestyle routines during the lockdown.	Over 30 % reported weight gain
3	Hanan Alfawaz,2020	Saudi Arabia	Cross sectional survey	1965	Analyze implications on Saudi citizens' health and lifestyle of the COVID-19 home quarantine	During the pandemic, the percentage of participants who walked at least four times a week daily dropped dramatically.
4	Hadia Radwan, 2020,	United Arab Emirate	Cross sectional survey	2060	Investigating the incidence and drivers of harmful behavioral change amongst UAE inhabitants during the COVID-19 lockout	The most prevalent trend was an increase in food consumption (31.8%), followed by a decrease in physical activity (30%), an increase in weight (29.4%), a reduction in sleep (2.08%), and an increase in smoking (20.8%). (21%).
5	Souhail Hermassi 2020,	Qatar	Cross sectional survey	1144	Physical activity (PA) and overall well-being of those in Qatar quarantined for the COVID-19 epidemic.	As evaluated by sitting time, there was a substantial decrease in weekly walking and an elevation in sedentary behavior because of COVID-19 home confinement.
6	HudaAl Hourani, 2020,	Jordan	Cross sectional survey	477	Determining the impact of the curfew on Jordanian children's physical activity, weight, and eating habits.	During the lockout, more than half of the individuals said they spent more than three hours at the front of a screen. As during lockdown, there was a huge increase in physical activity.

Table 2: Summary of the reviewed studies.

#	First Author /year	Country	Type of study	Sample size	Measured parameter	Main results
7	Ahmad Salman, 2020,	Kuwait	Cross sectional survey	679	The study's goal is to learn how the epidemic affects Kuwaiti individuals' physical activity and eating habits.	Fewer than a third of respondents (33.1%) reported engaging in any physical activity or exercise for more than 30 minutes each week and 36.4% of respondents rated their quality of sleep as 'poor' or 'very poor'. Moreover, the study revealed increase consumption of vegetables and carbohydrates during pandemic more than before.
8	Khaled Trabelsi, 2020	Lebanon	Cross sectional survey	548	The researchers in this study wanted to know if the isolated older individuals linked to the physical activity and quality of sleep were associated with changes in their mental well-being.	Because of the COVID-19 lockout, people reported lower levels of mental well-being, sleep quality, and overall energy expenditure.
9	Lama M Alshehri, 2021	Saudi Arabia	Cross-sectional descriptive Study	452	The COVID-19 shutdown is being studied to see if it has an impact on Saudi Arabian children and adolescents' eating and physical activity habits.	Over half (58.4%) reported changes in their appetite. During most of the pandemic, 39.4% of people had difficulties eating a good, balanced diet. Snack consumption has been increasing. More than half of children and adolescents (58.2%) reported a major drop-in daily physical activity, while 42% reported no physical activity at all and 28.2% reported exercising for less than 30 minutes per day.
10	Alejandro López-Valenciano 2020	KSA	Systematic review	10 studies	A systematic search for research that provides information on physical activity levels among university students prior to and during the COVID-19 epidemic.	During much of the COVID-19 pandemic quarantines, university students from throughout the world saw their overall levels of physical activity drop.

Table 3: Continue Summary of the reviewed studies.

#	First Author / year	Country	Type of study	Sample size	Measured parameter	Main results
11	Fayz S. Al-Shahry, 2020	Saudi Arabia	Cross sectional survey	92	The purpose of this study was to examine the effect of quarantine on Saudi residents' physical activity and other characteristics.	The results reveal a 56.50 percent gain in weight and an increased number of hours spent sleeping.
12	Sara Al-Musharaf, 2021	Saudi Arabia	Cross sectional survey	297	The purpose of this study was to examine the effects of COVID-19 on Saudi residents' physical activity, weight, mental health sleep, and eating habits during the lockdown.	Half of the individuals said they hadn't lost or gained any weight, 30% said they had lost weight, and 18% said they had gained weight. Increased weight gain was linked to self-quarantine from the commencement of COVID-19, as well as tension at the start of the lockdown and throughout.
13	Eman Sharara 2018	Jordan	Systematic Review	172 Articles	For synthesizing information on physical inactivity as well as its social causes in Arab nations, with reference to gender and cultural contexts.	Inactivity is widespread among adults and children/ adolescents across the world, and women are more likely to be inactive than males. Age, gender, and a lack of educational attainment are all factors that contribute to physical inactivity in the region, but the cultural background of the area appears to be particularly deterrent to physical exercise.

Table 4: Continue Summary of the reviewed studies.

#	First Author/ year	Country	Type of study	Sample size	Measured parameter	Main results
14	Manar, bduljalil Bakhsh, 2020	Saudi Arabia	Cross Sectional Survey	2255	To see if Saudi Arabia's adult population's food and physical activity habits altered during an COVID-19 quarantine. .	Approximately 28% of people gained weight due to snacking and eating more frequently. Most participants (73%) and almost half (47%) said they had eaten meals prepared at home, whilst just 7% said they had eaten out. The most common causes for altering food habits were emptiness and boredom (44 %) and the presence of time to prepare meals (40 %). In terms of immune-boosting foods and supplements, honey (43 percent) and vitamin C (50 percent) have been the most popular. Additionally, COVID-19 decreased physical activity in 52% of patients, which was linked to a weight increase ($p<0.001$).
15	Mohammed A Alrubaysh, 2021	Saudi Arabia	Cross Sectional Survey	2.069	During the COVID-19 shutdown, the Saudi population's lifestyle modifications that have been considered a risk factor for cardiovascular disease (CVD) will be assessed.	During the epidemic, people ate fewer fish, meat, and shellfish, as well as fat-containing foods, but their intake of snacks and drinks soared. During the epidemic, Americans' time in front of a television and time engaged in physical activity both rose. Additionally, 43% of the subjects reported alterations in sleeping patterns and weight increase during the quarantine. CVD symptoms were shown to be more prevalent in those with poor lifestyle practices.
16	Ahmed Al Fagih, 2021	Saudi Arabia	Retrospective study of heart failure patients	429	As a study, however, during the COVID-19 pandemic, the effect of curfews on patients with heart failure who have cardiac implanted electronic equipment (CIEDs) will be examined.	The study included 82 people who had heart failure. Patient physical activity decreased by 27.1%, with the median daily activity dropping between 2.4 - 1.8 hours.

Table 5: Continue Summary of the reviewed studies.

#	First Author/ year	Country	Type of study	Sample size	Measured parameter	Main results
17	Alotaibi, (2021)	Saudi Arabia	Cross Sectional Survey	22.112	Prior physical activity and psychological health and well-being during lockdown have been linked in research.	BMI (body mass index) was shown to differ significantly among active and sedentary individuals; with females additionally reporting an additional 3% higher BMI than their male counterparts. Compared with pre, the mental health of all subjects deteriorated. Mental health and well-being suffered more from quarantine inactivity than those who were active before the confinement. Sedentary people were four times more likely to suffer from moderate depression than active people.
18	Baattaiah, Alharbi, 2020	Saudi Arabia	Cross Sectional Survey	1859	In the event of a COVID-19 pandemic, determine adult physical activity habits and degrees of resilience.	85% of the respondents engaged in PA and 15% were physically inactive. The majority participated in moderate-intensity PA (71%). which indicates a medium level of resilience.
19	Dhaheri, 2021	MENA	Cross Sectional Survey	614	Study participants in the Middle East and North Africa (MENA) area were asked to complete a questionnaire on their quality of life and mental health in relation to the epidemic.	42% said they had more help from family members, 40.5 percent said their mental health had improved, and over 40% said they had spent more time relaxing since the outbreak of the epidemic.
20	Sfendla A, Hadrya F. (2020)	Morocco	Cross Sectional Survey	256	Two questionnaires were used to measure distress symptoms: the Brief Symptoms Assessment and the Godin-Shephard Leisure Time Physical Activity Assessment.	Anxiety, depression, and somatization have all been shown to be significantly higher in the less physically active group than in the more active group. The following factors were shown to be associated with general distress: type of age, gender, quarantine, chronic illness, education level, and smoking. Physical activity in leisure time appears to be solely related to somatization and interpersonal sensitivity to specific factors. To be forced to leave one's house during an epidemic has been connected to emotional distress, specifically symptoms like suspicion, resentment, and anxiety over losing one's independence. People who were physically active but not excessively so reported decreased psychological anguish.

21	Leone, Sigman adn Glomibek, 2020)	Argentina	Data base analysis, comparative study	25,000 respondents of a detailed circadian/sleep survey	Compared sleep duration, quality and timing, social jetlag and chronotype between control and lockdown conditions	The lockdown, however, did not affect sleep quality, measured through the Pittsburg Sleep Quality Index (PSQI score) ($Z = 2.722$, $p = 0.0065$, $r = 0.0602$). Finally, we measured chronotype using the MSFsc (midpoint of sleep on free days, sleep corrected), which was found to be significantly delayed during the lockdown. A second proxy, the MEQ (Morningness-Eveningness Questionnaire) score, did not change, but this could be predicted since effects on diurnal preferences (MEQ score) are expected to lag behind those in sleep timing (MSFsc).

Table 6: Continue Summary of the reviewed studies.

Discussion

The global pandemic brought by the novel coronavirus (COVID-19) put the world into unprecedented situations in which a community lockdown was required, thereby resulting in physical inactivity among Arab countries. Community lockdown includes social distancing and the closure of city and provincial recreational facilities, national parks, and playgrounds. Undeniably, the summary of reviewed studies revealed a very high impact on physical activity among Arab people [12,18]. In the review done, walking among Arab people, involving children, adolescents, adults, and university students, was reduced [3,19] specifically, 3 hours were spent in screen [20] 40% are resting all the time [21]. Negative consequences like weight gain [2,12,14,22-25]. changes in sleeping habits [24] and mental problems [21,25,26]. Are prevalent. Furthermore, when diversional activity decreases, people tend to indulge in unhealthy coping behaviours like smoking [23] and increased sedentary behaviour like sitting all the time [27].

Contrary to the negative consequences revealed, there was inconsistency regarding diet and sleeping. According to some studies, respondents find it difficult to sleep during quarantine [19], while others have increased their sleeping hours [12]. In addition, regarding food, there is also inconsistency. Some have a change in appetite [12], 18% of the respondents gained weight while 30% lose it [14], while some are busy eating more snacks [2] and beverages [24]. Surprisingly, 73% enjoyed home-cooked meals during quarantine, 47% enjoyed healthy meals, and only 7% consumed food from restaurants [2].

What is alarming in the results of the reviewed studies is the impact of COVID-19 quarantine on mental health coupled with that of physical inactivity. Mental well-being is decreased [28], boredom, and emptiness are experienced by 44% of participants [2], as well as anxiety and depression [26]. There are many reasons for the cause of mental problems. Quarantine during a pandemic is likely to have been a stressful time for all Arab people, not only in terms of restrictions, but also in the worry and anxiety it brings, in addition to the restrictions on going out and the social distancing. The reduction of social contact aggravates the mental distress during the COVID-19 quarantine. This finding warrants a further investigation into linking decreased social contact with mental problems during COVID-19 quarantine. The current study aims at assessing how COVID19 quarantine affected physical activity of Arab people. The findings of this analysis suggest that future physical activity programs should consider several factors.

The Covid-19 lockdown resulted in significant reduction of physical activity among Arab people. Physical activity is necessary! An important health behaviour should not be neglected because of its association with many physical and mental health conditions. The study on this topic is limited. The researchers believed that this review is the first in the Kingdom of Saudi Arabia.

The study was able to determine the main impact of COVID-19 quarantine across all ages and groups, which included physical and mental impacts. Physical impact includes weight gain, increased BMI due to increased appetite and difficulty balancing diet and unhealthy coping behaviour of eating more, while inconsistency was determined with regards to sleep patterns, increased sedentary lifestyle such as sitting all the time, staying more than 3 hours in front of a computer/screen, and having no exercise at all. Therefore, physical activity changed drastically during pandemic lockdown. Overall, the COVID-19 quarantine had a huge impact on the physical activity of Arab people, which may become a public health concern as it may become permanently entrenched, leading to more serious debilitating health problems such as diabetes mellitus and cardiovascular diseases.

The results of the current review will serve as a framework to focus on developing programs and policy strategies geared

towards promoting physical activity during the next few months of pandemic. These efforts will be beneficial to Arab people in bolstering their immune system and preventing high risk for developing chronic diseases. Furthermore, this will improve the quality of life of every Arab people, as they will learn how to thrive during this difficult situation positively and consciously. Researchers, however, respectfully urge that treatments that may lead to long-term behavioural change among Arab people be improved. An effort to address the highlighted impact of this study, such as the unfavourable health consequences related to sedentary lifestyles in countries. Education cannot be undervalued in changing people's perceptions of the importance of physical activity while battling a pandemic concern.

Nursing Implication

The study finding highlighted the importance of nursing role in educating the community and family for healthy behaver in dealing with pandemic, lockdown and quarantine. Nurses must create protocols about creating safe environment and preventing infection at home, work and shopping against any infected diseases. Nurses must create education program about scheduling time for exercise, sleeping, eating pattern.

Conclusion

Quarantine was the best solution to face the pandemic, but it has a negative effect on health in general and on physical activity in specific. Therefore, the governments must create educational programs on how to live with quarantine, maintain health and healthily make the quarantine.

Financial Support and Sponsorship

Current review is self-funded, no other funding or financial support or sponsorship.

Conflicting Interest

No conflict of interest has been declared by the authors.

References

1. Woods JA, Hutchinson NT, Powers SK, Roberts WO, Gomez-Cabrera MC, et al. (2020) The COVID-19 pandemic and physical activity. Sports Med Health Sci 2:55-64.
2. Bakhsh MA, Khawandanah J, Naaman RK, Alashmali S (2021) The impact of COVID-19 quarantine on dietary habits and physical activity in Saudi Arabia: A cross-sectional study. BMC Public Health 21-1487.
3. Alfawaz H, Amer OE, Aljumah AA, Aldisi DA, Enani MA, et al. (2021) Effects of home quarantine during COVID - 19 lockdown on physical activity and dietary habits of adults in Saudi Arabia. Sci Rep 11:5904
4. Nirala SK, Naik BN, Rao R, Pandey S, Singh CM, et al. (2022) Impact of Lockdown due to COVID-19 on lifestyle and diet pattern of college students of Eastern India: A cross-sectional survey. Nepal Journal of Epidemiology 12:1139-1155.
5. Physical activity. cited 2022 Feb 27.
6. Mattioli AV, Sciomer S, Cocchi C, Maffei S, Gallina S (2020) Quarantine during COVID-19 outbreak: Changes in diet and physical activity increase the risk of cardiovascular disease. Nutr Metab Cardiovasc Dis 30:1409-1417.
7. Maugeri G, Castrogiovanni P, Battaglia G, Pippi R, D'Agata V, et al. (2020) The impact of physical activity on psychological health during Covid-19 pandemic in Italy. Heliyon 6: e04315.
8. Goethals L, Barth N, Guyot J, Hupin D, Bongue B (2020) Impact of Home Quarantine on Physical Activity Among Older Adults Living at Home During the COVID-19 Pandemic: Qualitative Interview Study. JMIR Aging 3:e19007.
9. WHO (2021) 2021 physical activity factsheets for the European Union Member States in the WHO European Region. 211 p.
10. Sidebottom C, Ullevig S, Cheever K, Zhang T (2021) The effect of COVID-19 pandemic and quarantine period on physical activity and dietary habits of college-aged students. Sports Med Health Sci 3: 228-235.
11. Leone MJ, Sigman M, Golombek DA (2020) Effects of lockdown on human sleep and chronotype during the COVID-19 pandemic. Current Biology 17:30:R930-R931.
12. Al-Shahry FS, Philip W, Al-Shahry RF (2020) Impact of COVID-19 Quarantine on the Physical Condition of Residents in Saudi Arabia. Journal of Internal Medicine and Emergency Research 1:1-9.
13. Raiola G, Aliberti S, Esposito G, Altavilla G, Isanto TD, et al. (2020) How Has The Practice Of Physical Activity Changed During The Covid-19 Quarantine? A Preliminary Survey. University of Salerno 20: 242-247.
14. Al-musharaf S, Aljuraiban G, Bogis R, Alnafisah R, Aldhwayan M (2021) Lifestyle changes associated with COVID-19 quarantine among young Saudi women: A prospective study. 16:e0250625.
15. Sharara E, Akik C, Ghattas H, Obermeyer CM (2018) Physical inactivity , gender and culture in Arab countries: A systematic assessment of the literature. BMC Public Health 18:639.
16. López-Valenciano A, Suárez-Iglesias D, Sanchez-Lastra MA, Ayán C (2021) Impact of COVID-19 Pandemic on University Students Physical Activity Levels: An Early Systematic Review. Front Psychol 11: 624567.
17. Moher D, Liberati A, Tetzlaff J, Altman DG (2009) Prisma Group. Reprint—preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. Physical therapy 1:89: 873-880.
18. Zubair M, Alanzi SM, Alhusayni YM, Danah M, Alshehry SH, et al. (2020) Importance of Physical activity awareness within Saudi high risk patient during home quarantine. 24: 4258-4263.
19. Slimani M, Paravlic A, Mbarek F, Bragazzi NL, Tod D (2020) The relationship between physical activity and quality of life during the confinement induced by COVID-19 outbreak: a pilot study in Tunisia. Front psychol 11:1882.
20. Hourani HAl, Alkhatib B, Abdullah M (2021) Impact of COVID-19 Lockdown on Body Weight , Eating Habits , and Physical Activity of Jordanian Children and Adolescents. 16:5.
21. Dhaheri ASAl, Bataineh MF, Mohamad MN, Ajab A, Saleh ST (2021) Impact of COVID-19 on mental health and quality of life: Is there any

effect? A crosssectional study of the MENA region. PLoS One 16: e0249107.

22. Alzahrani H, Alshehri F, Alsufiany M, Allam HH, Almeheyawi R, et al. (2021) Impact of the 2019 Coronavirus Disease Pandemic on Health-Related Quality of Life and Psychological Status: The Role of Physical Activity. 18:3992.

23. Hasan H, Hilali Mal, Abbas N, Hamadeh R, Saif ER, et al. (2021) Indirect Health Effects of COVID-19: Unhealthy Lifestyle Behaviors during the Lockdown in the United Arab Emirates. Int J Environ Res Public Health 18:1964.

24. Alrubaysh MA, Alluwaymi ZS, HarbiAl KM, Alkahtani AA, Alanazi SM (2021) Lifestyle changes that can increase the risk of cardiovascular disease during the COVID-19 pandemic: a cross-sectional study. 19: 44-53.

25. Alotaibi AS, Boukelia B (2021) The Effect of Pre-Quarantine Physical Activity on Anxiety and Depressive Symptoms during the COVID-19 Lockdown in the Kingdom of Saudi Arabia. Int J Environ Res Public Health 18: 7771.

26. Sfendla A, Hadrya F (2020) Factors Associated with Psychological Distress and Physical Activity during the COVID-19 Pandemic. Health Secur 18:444-453.

27. Hashem SA, Refay ASEl, Mostafa HH, Kamel IH, Sherif LS (2020) Impact of Coronavirus Disease-19 Lockdown on Egyptian Children and Adolescents: Dietary Pattern Changes Health Risk. 8:561-569.

28. Trabelsi K, Ammar A, Masmoudi L, Boukhris O, Chtourou H, et al. (2021) Sleep Quality and Physical Activity as Predictors of Mental Wellbeing Variance in Older Adults during COVID-19 Lockdown: ECLB COVID-19 International Online Survey. Int J Environ Res Public Health 18:4329.