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An Investigation Into the Lifestyle During an Isolation Period for Covid 19 in Female High School Students, Case study: Central District of Mahshahr

Abstract

Quarantine is one of the methods that most countries have adopted to control the prevalence of Covid-19. In this regard, the present study was conducted to investigate the lifestyle of coronary heart disease quarantine period among female high school students in the first period of the central region of Mahshahr.

The present study is an applied purpose and a descriptive-analytical method that was conducted on 294 girls studying in the first year of high school in Mahshahr in the academic year 1399-1400. According to the calculations performed and the Morgan table, 294 people were selected as the sample. Data were collected by completing a researcher-made questionnaire with 50 items. Data analysis was performed using SPSS software (version 23). The results showed that among the handwashing behaviors with soap and water, use of masks, gloves, and disinfectants, not leaving home, use of public transportation, regular exercise, adequate sleep, adequate use of resources, Protein and fruits and vegetables, the use of herbal teas, following the news of Corona from various media, creating entertainment, spending time in cyberspace and following the statistics of Corona mortality was not significantly associated with coronary heart disease. However, there was a significant relationship between social distance behaviors, refraining from physical contact with individuals, feeling worried about being infected, or a family member and relatives close to the corona with coronary heart disease.

Keywords: *Covid-19, Lifestyle, Quarantine, Female students*

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1. INTRODUCTION

A shaft spillway is a type of spillway that can use instead of a side weir. Another advantage of this type of Lifestyle is one of the social science concepts that has been considered by sociologists in the past and present. For thousands of years, people have chosen a certain lifestyle, and they try to manage it by following the do's and don'ts that society has set for them (Beiraghi fard and Kargar, 2020). There should be do's and don'ts of the community to consider the World Health Organization as a combination of individual behavioral patterns and habits throughout its life, including physical activity and sports, nutrition, makeup and clothing, folk music, etc., that follow the social process. The World Health Organization (WHO) defines the do's and don'ts of a lifestyle society include a combination of behavioral patterns and habits across the human lifespan, including physical activity and sports, nutrition, makeup and clothing, folk music, etc., which has been developed following the process of socialization (Tajbakhsh, 2020).

Coronaviruses are single-stranded, RNA-coated viral proteins with a diameter of 120-80 nm and are divided into four groups: alpha, beta, delta, and gamma (Chan et al., 2013., He et al., 2020). They have a spherical shape with protruding branches and a crown-like appearance, and the naming of this viral family as coronavirus is due to their spatial form (Wilson and Chen,2020). No exposure to the virus, or in other words, no contact with patients, is the best way to prevent Covid-19. This virus is primarily transmitted between people through respiratory droplets and contact routes. Therefore, it can be said that the best way to prevent it is to observe personal hygiene, especially continuous washing of hands with soap and water for 20 seconds. If water and soap are not available, use hand sanitizer including ethanol (with a concentration of at least 60%) (Mehmandar Oskooi et al., 2020).

Quarantine is one of the outbreak control measures. It is important to take care of your body by managing stress during a COVID-19 quarantine. Communicating through social networking with people who are trustworthy and talking about worries and feelings is very helpful (Allah Tavakoli, 2020). The nature of the infectious disease is one of the factors that exacerbate anxiety during quarantine; For example, patients with suspected or confirmed Quid-19 have a strong fear of symptoms such as fever, hypoxia, cough, and side effects of treatment such as sleep disturbance due to corticosteroids during quarantine (Xiang et al., 2020).

Lifestyle during COVID-19 involved changes in food, conversation (increased conversation, family interaction, and tolerance), leisure (types of education at home and rely on social networks), cyberspace's role in new lifestyle (modern biosocial practices at the context networks and cyberspace is reconciliation with books and reading (Moradi and Mohammadifar, 2020). Scientific evidence shows that people's choices and lifestyle patterns affect their health and life expectancy (Mohammadi-Zaidi et al., 2011). Mohammadi (2016) showed that students' lifestyles had changed significantly before and after the incidence of Covid-19. In

other words, students' lifestyles have significantly upgraded in physical health, and decadent spirituality-based lifestyle has increased. In general, it can be said that stress and major crises such as Covid-19 can change some aspects of human life.

Hassani (2016) showed that the number of TV viewers has increased in the post-COVID-19 era compared to the past so more than 0.56% of people spend their time watching TV and 0.40% on social networks. Kazemi (2020) claimed that the COVID-19 situation, especially during the quarantine period, has reconstructed life in two ways first through closed doors in houses and even these days after the end of the crisis behind closed doors at the workplace and the second method is through mobile phones. The results of Tajbakhsh's (2020) research showed that the coronavirus, despite the costs imposed on society, provided a good opportunity to reconsider and rethink lifestyle. It has revolutionized people's lifestyles. In a study (Mattioli et al., 2020), the effects of quarantine on lifestyle, including nutrition and physical activity, and the impact of new technologies were analyzed in dealing with this situation. This research showed that quarantine is correlated with stress and depression and leads to an unhealthy diet and a low level of physical activity. A cross-sectional study (Hu et al., 2020) examined the impact of the Quaid-19 pandemic on lifestyle behaviors and their relationship to subjective well-being (SWB) among the general population in mainland China. It reported their lifestyle behaviors, including leisure exercise, leisure-based screen time, and diet.

In Iran, students spend most of their time at home after school closures, especially in regions that are in danger or red in terms of coronavirus outbreaks and they are prohibited from socializing with their peers. This can create tension and challenges in the family. Their lifestyle has changed, and they have to attend virtual classrooms instead of attending school. Interaction, exchange of ideas, and group games have been eliminated or very limited, and all of these have led to a boring life that is incompatible with the teen spirit. Accordingly, this study aims at investigating the lifestyle of coronavirus disease quarantine period among female high school students in the central district of Mahshahr.

Methodology

The present study is applied research with a descriptive and analytical approach. The statistical population of the study includes 1249 female high school students (10^{th} grade) of the central district of Mahshahr in 4 different public schools named Deen and Danesh, Nehzat, Haj Moarefi 1, and Haj Moarefi 2(Ministry of Education Iran, county of Mahshahr). The Cochran formula was used to select the sample size, which is one of the most widely used methods for calculating the sample size. Morgan table was also used to assess the accuracy and reliability of the sample. Accordingly, 294 random samples are required for this study, and this number was randomly selected considering the number of students in a school (60, 67, 75, and 92 people, respectively).

In this research, scientific materials were collected through books, research, and articles. Analytical materials were collected by completing a virtual questionnaire containing 50 questions due to Covid-19 restrictions and observing health protocols. Content validity was confirmed by two experts, and reliability was confirmed by an experimental study on 30 students and Cronbach's alpha test with a value of 0.828. The questionnaire link was provided to them, and the questionnaires were completed virtually at the specified times. The answers were received as output in an Excel file after obtaining permission from the relevant authorities and completing the questionnaire online. Data were analyzed using SPSS Statistics for Windows 23.0.

Findings

The results showed that the average age of the population was 13.92 ±1.05 years. 8% of the population had coronavirus. The proportion of students in the 7^{th} grade, 8^{th} grade, and 9^{th} grade was 36.4, 33.7, and 29.9%, respectively. The maximum frequency of the father's employment status was free jobs (41,81%), followed by labor groups, specialized jobs, unemployed, and finally, retired. The maximum frequency of maternal employment status is in the household occupation (95.9%), followed by free jobs, specialized jobs, and workers, respectively.

Table 1: Frequency distribution and relationship of lifestyle behaviors and Covid-19 in female high school students in the central district of Mahshahr in the academic year 2020-2021

explanation	Frequency		Infected with coronavirus		df	*p*
	Yes(%)	No(%)	Yes(%)	No(%)		
Handwashing	268(91.2)	26(8.8)	20(87)	3(13)	1	0.441
Wearing masks outdoors	284(96.6)	10(3.4)	22(95.7)	1(4.3)	1	0.563
Wearing gloves outdoors	232(78.9)	62(21.1)	15(65.2)	8(34.8)	1	0.11
Use disinfectants	279(94.9)	15(5.1)	21(91.3)	2(8.7)	1	0.331
Observance of social distance	271(92.2)	23(7.8)	16(69.6)	7(30.4)	1	0.001
Avoid close contact with people	261(88.8)	33(11.2)	15(56.2)	8(34.8)	1	0.002
Do not leave the house	204(69.4)	90(30.6)	15(56.2)	8(34.8)	1	0.643
Use of public transport	73(24.8)	221(75.2)	9(39.1)	14(60/9)	1	0.129

Regular exercise	230(78.2)	64(21.8)	14(60/9)	9(39.1)	1	0.061
Adequate sleep	269(91.5)	25(8.5)	20(87)	3(13)	1	0.428
Adequate intake of protein	273(92.9)	21(7.1)	21(91.3)	2(8.7)	1	0.647
Adequate fruit and vegetable consumption	272(92.5)	22(7.5)	21(91.3)	2(8.7)	1	0.686
Use herbal teas	214(72.8)	80(27.2)	14(60.9)	9(39.1)	1	0.221
Listen to coronavirus news	255(86.7)	39(13.3)	18(78.3)	5(21.7)	1	0.206
Fill leisure time during quarantine	273(92.9)	21(7.1)	19(82.6)	4(17.4)	1	0.069
Spending time in cyberspace	247(84)	22(7.5)	21(91.3)	2(8.7)	1	0.551
Fear of coronavirus disease	205(69.7)	89(30.3)	14(60.9)	9(39.1)	1	0.350
Concerns about family members with covid 19 infection	240(81.6)	54(18.4)	14(60.9)	9(39.1)	1	0.020
tracking COVID-19 mortality statistics	239(81.3)	55(18.7)	18(21.7)	5(21.7)	1	0.780
*p less than 0.05 is considered significant						

Figure 1: Frequency distribution of lifestyle behaviors caused by coronavirus disease during quarantine in female high school students in the central district of Mahshahr in the academic year 2020-2021

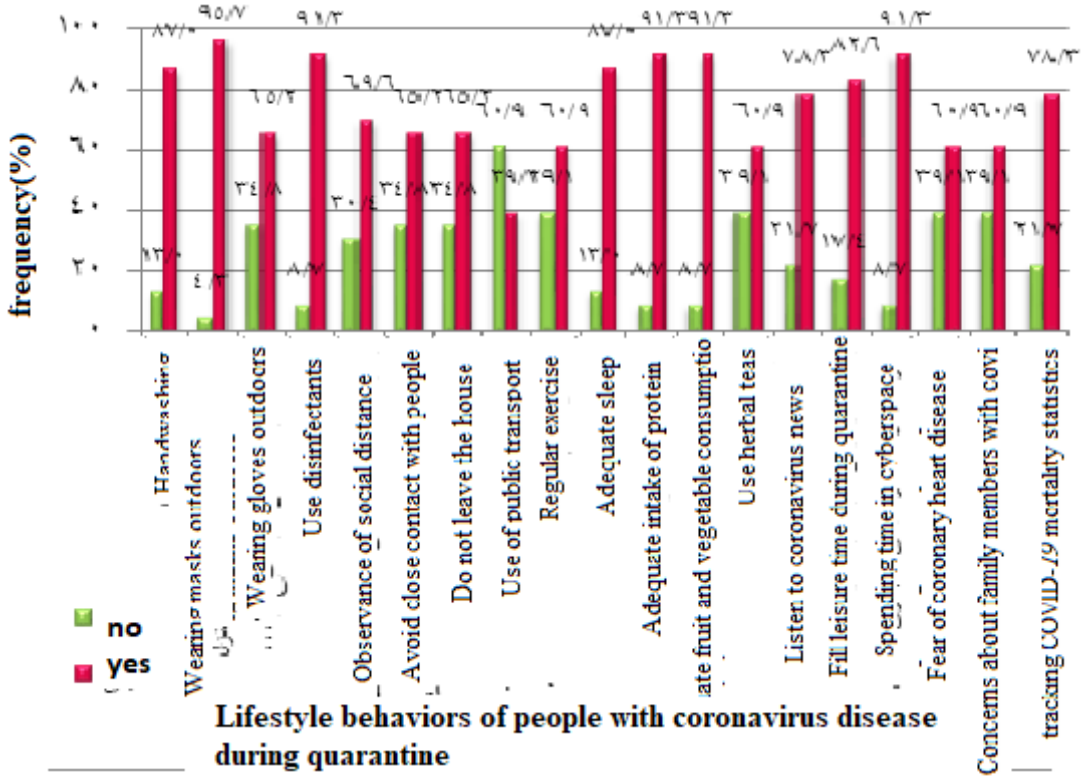

Figure 2: Frequency distribution of lifestyle behaviors during quarantine in female high school students with coronavirus disease in the central district of Mahshahr in the academic year 2020-2021

This study investigates the frequency distribution of lifestyle behaviors of female high school students in the first district of the central district of Mahshahr city during the quarantine period due to coronavirus disease and the relationship between these behaviors and infection with the coronavirus with a significance p of less than 0.05(tabel1, figs 1,2). The results show that 91.2% of the total subjects washed their hands with soap and water for at least 20 seconds during quarantine, and 13.0% of those with coronavirus disease did not do. There was no statistically significant relationship between handwashing with soap and water and coronavirus disease.

It was found that 96.6% of the total subjects wore the mask outdoors during the quarantine period, and 4.3% of those with coronavirus disease did not do so. There was no significant relationship between wearing a mask and infection with coronavirus.

In total, 78.9% of the total subjects wore gloves outdoors and in public places during the quarantine period, and 34.8% of those with coronavirus disease did not do so. There was no statistically significant relationship between handwashing with soap and water and coronavirus disease. There was no significant relationship between wearing gloves and infection with coronavirus.

94.9% of the total subjects used chemical disinfectants, such as alcohol, outdoors and indoors during the quarantine period, and 8.7% of those with coronavirus disease did not do so. There was no significant relationship between the use of chemical disinfectants and infection with coronavirus.

92.2% of the subjects observed social distancing during the quarantine period, and 30.4% of those with coronavirus disease did not do so. There was no significant relationship between observed social distance and infection with coronavirus.

88.8% of the subjects avoided close contact with people during the quarantine period, and 34.8% of those with coronavirus disease did not do so. There was no significant relationship between avoiding contact with other people and infection with coronavirus.

69.4% of the subjects stayed at home and avoided meeting relatives, friends and shopping, etc., during the quarantine period, and 34.8% of those with coronavirus disease did not do so. There was no significant relationship between staying at home and infection with coronavirus.

75.2% of the subjects did not use public vehicles (taxis, buses, etc.) during the quarantine period, and 39.1% of those with coronavirus disease did not do so. There was no significant relationship between the use of public vehicles and infection with coronavirus.

78.2% of the subjects exercised regularly during the quarantine period, and 39.1% of those with coronavirus disease did not do so. There was no significant relationship between regular physical activity and infection with coronavirus.

91.5% of the subjects had enough sleep during the quarantine period, and 13% of those with coronavirus disease hadn't enough sleep. There was no significant relationship between enough sleep and infection with coronavirus.

92.9% of the subjects ate high protein foods (red and white meat, fish and seafood, eggs, and dairy products) during the period of quarantine, and 8.7% of those with coronavirus disease did not eat high protein foods. There was no significant relationship between a high-protein diet and infection with coronavirus.

92.9% of the subjects ate enough fruits and vegetables during the period of quarantine, and 8.7% of those with coronavirus disease did not eat enough fruits and vegetables. There was no significant relationship between sufficient intake of fruits and vegetables and infection with coronavirus.

72.8% of the subjects used herbal teas (green tea, thyme, etc.) during the quarantine period, and 39.1% of those with coronavirus disease did not do that. There was no significant relationship between the use of herbal teas and infection with coronavirus.

86.7% of the subjects listened to the last news on the coronavirus in the quarantine period, and 78.3% of those with coronavirus disease followed the news related to the coronavirus. There was no significant relationship between following the latest coronavirus news and infection with coronavirus.

92.9% of the people had spent leisure time with some indoor activities such as watching movies, reading books, artwork, or completing undone jobs according to their interests and tastes during the quarantine period, and 17.4% of those with coronavirus disease did not do that. There was no significant relationship between spending leisure time and infection with coronavirus.

84% of the people had spent spend their free time in cyberspace (WhatsApp, Telegram, Instagram, etc.) during the quarantine period, and 91.3% of those with coronavirus disease also spent their free time in cyberspace. There was no significant relationship between spending time in cyberspace and infection with coronavirus.

69.7% of all subjects were anxious about having coronavirus disease during quarantine and 60.9% of people with coronavirus disease felt the same way. There was a significant relationship between feelings of anxiety and infection with coronavirus.

81.6% of all subjects were concerned about family members with Covid 19 infection during quarantine, and 60.9% of people with coronavirus disease felt the same way. There was a significant relationship between concern about family members with coronavirus disease and infection with coronavirus.

81.3% of all subjects were tracking COVID-19 mortality statistics during quarantine, and 78.3% of people with coronavirus disease did so. There was no significant relationship between tracking COVID-19 mortality statistics and infection with coronavirus.

Discussion

This study aimed at investigating the lifestyle of coronavirus disease quarantine period among female high school students in the central district of Mahshahr. The results showed that no significant relationship was observed between the variables (handwashing behaviors with soap and water, wearing masks, gloves and use of disinfectants, not leaving home, use of public vehicles, regular exercise, adequate sleep, consumption of adequate sources of protein and fruits and vegetables, use of herbal teas, follow the corona news from various media, spent leisure time with some indoor activities, spend time in

cyberspace and follow the corona death statistics) to coronavirus infections. But there was a significant relationship between observance of social distance, avoidance of physical contact with people, and feeling worried about family members and relatives to Covid 19 infection. Findings of a study showed regular physical activity had a positive correlation with the consumption of fruits, vegetables, and fish. Depression and quality of life had an inverse and direct correlation with high consumption of cereals, legumes, and low meat consumption.

The results of Amatori et al. (2020) showed that weaker emotions might lead to bad eating habits, which in itself can be correlated with low morale. Exercise at home leads to a healthier diet, and its effect on mood may be a key criterion in special circumstances such as quarantine. In a study (Hu et al.,2020), about 70 percent of respondents reported that they spend more time watching the screen, while about 30 percent reported increased consumption of vegetables and fruits after the covid-19 pandemic. Not exercising, low consumption of vegetables and fruits, and skipping breakfast after adapting to socio-demographic factors, self-assessment of physical health, perceived social support, and social isolation led to low mental well-being. In another study (Galle et al.,2020), all sedentary behaviors significantly increased, and physical activity decreased significantly during home quarantine and holidays. The time spent using electronic devices also showed the maximum increase, and the walking time showed the maximum decrease.

The study by Hosseini et al. (2016) showed that students had psychological problems such as anxiety, depression, post-traumatic stress disorder *(*PTSD) , stress, frustration, fear, anger, loneliness, and boredom due to coronavirus disease and quarantine. In the interpersonal dimension, students have problems such as poor family communication, poor communication with friends and teachers, lack of social support, and a decline in household income. In the educational dimension, there are problems, such as the poor cognitive and social presence of students in online courses, increased cognitive load, poor motivation, time management challenges, and evaluation concerns. The study of Moradi and Mohammadifar (1399) showed that social networks have a significant effect on social anxiety but have a non-significant relationship with lifestyle changes. Internal social networks also have significant and inverse effects on social phobia and lifestyle changes. The study of Tajbakhsh (2020) showed that the coronavirus, despite the costs imposed on society, provided a good opportunity to reconsider and rethink lifestyle.

Hassani (2016) proved that the number of TV viewers has increased in the post-COVID-19 era compared to the past so more than 0.56% of people spend their time watching TV and 0.40% on social networks. Nasirzadeh et al. (2016) showed that 57.7%, 51.4%, and 57.3% of the subjects had stress, anxiety, and depression, respectively. The findings of Kiwanloo et al. (2016) showed that the highest mean score of performance compared to the home quarantine program was in the age group over 55 years and higher in education. Women's age, education, and attitude had an increasing effect on their performance. Therefore, the level of knowledge, attitude, and woman's performance regarding the implementation of home quarantine to prevent coronavirus were desirable, but their performance was not considered appropriate, contrary to the positive attitude of women towards home quarantine. Mohammadi et al. (2016) showed that students' lifestyles had changed significantly before and after the incidence of Covid-19. In other words, students' lifestyles have significantly upgraded in physical health, and decadent spirituality-based lifestyle has increased. The results of a study by Abdolmohammadi et al. (2016) showed that about 20% of the students were with moderate addiction to the internet, and one was highly addicted to the internet. Students' social skills were above average. Finally, there was a significant negative relationship between students' internet addiction and their social skills. The study of Asgari et al. (2021) showed that the prevalence of coronavirus disease 2019 strongly affects individual, family, and social relationships, and to prevent and control the damage caused by it, the cohesion and strength of the family structure through related training and interventions should be effective psychology. Family cohesion and structure through relevant education and effective psychological interventions should be considered to prevent and control the damage.

Conclusion

This research has been done remotely and through virtual networks, so it has not been possible for the researcher to fully supervise how it is performed. This study is cross-sectional research, and the limitations of similar studies have led to a lack of logical analogy in some dimensions. It is suggested lifestyle changes during quarantine through virtual training and radio and television, necessary training on the symptoms of Covid-19, and observance of health protocols as much as possible.

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Conflict of interest

None.

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Ethics statement

None.

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