Original article

Personal preventive protocols and travel patterns during the COVID-19 pandemic

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Abstract: *Background* — Travel restrictions and adhering to health protocols while traveling was among the key strategies to combat COVID-19 pandemic.
Objective — The present study aims to measure and evaluate travel patterns and compliance with COVID-19 prevention protocols during traveling.
Methods — In this cross-sectional study, 589 individuals from the capitals of six provinces of Iran were included in the study using the cluster sampling method. There were 40 clusters. For data analysis, the mean value of responses in each individual was calculated for each section of the questionnaire.
Results — The response rate was 92% (589/640). Of all participants, 309 (52.5%) were women. The mean age of study participants was 42.84 years (SD=16.59). Among participants, 355 (60.3%) had a travel history during the COVID-19 pandemic. We revealed statistically significant relationships of the travel history with age (P<0.001), education level (P<0.001), and province (P<0.001). No statistically significant relationships of the travel history with socioeconomic status (SES), gender, and occupation subgroup were detected (P>0.05). The majority of study participants (38.5%) traveled for recreational purposes.
Conclusion: According to our findings, unnecessary travel was not avoided in Iran during the COVID-19 pandemic. Most of the participants who traveled during the COVID-19 pandemic did not follow safety precautions. Thus, some of the most important issues such as cultural influences, different risk tolerance levels among people, law enforcement, and stricter oversight by decision makers need to be taken into account.

Keywords: epidemiology, travel patterns, preventive protocols, COVID-19, epidemic, pandemic.

Introduction

With its rapid spreading, and high morbidity and mortality, COVID-19 has caused profound concern worldwide [1, 2]. Consequently, the World Health Organization (WHO) described this disease as a public health emergency of international concern [3, 4]. By July 7, 2022, nearly 558 million people were infected with the virus, and more than 6.3 million deaths occurred due to this disease worldwide [5].

The lack of effective treatment has led to the fact that the key strategy to control the disease and stop its rapid spread, along with vaccination, was to prevent transmission of the virus by following preventive protocols such as maintaining physical distance, avoiding crowds, wearing masks, washing hands and ventilating rooms [6-8]. Furthermore, most countries adopted relevant laws and regulations to reduce virus transmission including the closure of public places (universities, schools, and restaurants), distance education, reduced office hours, remote working, travel restrictions, etc. [9]. Since announcing the first coronavirus cases in the nation, Iran has struggled to contain the epidemic condition [10, 11]. At the beginning of the epidemic, protective behavior and non-pharmaceutical interventions were the best ways to prevent infection and stop the disease's spread, because there was no effective treatment or vaccine for this infection [12]. Although, like most countries in the world, Iran has experienced multiple peaks of coronavirus infections during the COVID-19 epidemic, vaccination in Iran began in August 2021 and was on a small scale [13]. Therefore, non-pharmaceutical

interventions were the best choice to contain the infection, especially before the vaccine was available. Meanwhile, in Western countries, the timing for starting vaccination of people on a large scale was generally earlier [13].

In the face of a global pandemic, travel restrictions have become a common strategy employed by governments worldwide to curb the spread of the virus. Travel restriction measures refer to various strategies and policies implemented by governments and organizations to limit or control the movement of people during the COVID-19 epidemic [7, 14]. These measures aim to reduce the spread of the virus by minimizing the potential for transmission across borders and within communities. The results of some studies showed that Implementing travel restrictions significantly reduced the number of trips and human mobility [15, 16]. While these measures aimed to limit the mobility of potentially infected individuals, it is crucial to recognize that travel restrictions alone may not completely hinder the spread of the virus. The COVID-19 changed travel preferences of people towards keeping oneself healthy. As people sought to avoid crowded areas, thereby reducing the risk of exposure to the virus, there has been a rise in interest in remote and isolated destinations. Some conducted surveys showed that responders preferred to choose natural and desolated places for their recreational trips [17]. Travelers must prioritize their health and safety during the pandemic. This includes following hygiene practices such as wearing masks, practicing social distancing, and frequently washing hands. Additionally, it is essential to be aware of, and comply with, local health guidelines and regulations in the travel area [18, 19]. Nevertheless, despite the established guidelines and recommendations, noncompliance with personal protective measures remains a persistent challenge. The findings of some studies showed that noncompliance with personal protective measures was high, especially in some population groups (including males, individuals with higher education, and people with higher socioeconomic status (SES) [20].

To develop effective disease management programs and develop policies to improve compliance with health protocols in places such as airports, railway stations, passenger terminals, recreational complexes, restaurants, gas stations, hotels, and inside transport vehicles such as airplanes, trains and buses, it is important to indicate the extent to which these protocols are followed in these places. This can effectively determine which areas should receive interventions and how. Therefore, our study aimed to measure and evaluate compliance with COVID-19 prevention protocols during travel using a validated tool, so that reliable information can be provided for programming and policy development.

Material and Methods

Questionnaire

This cross-sectional study was conducted in six provinces of Iran including Ardabil, East Azerbaijan, West Azerbaijan, Sistan and Baluchistan, Kerman, and Fars. The map of Iran highlighting the studied Provinces is shown in *Figure* 1.

A validated travel behavior questionnaire was employed to assess compliance with health protocols during the COVID-19 pandemic [21]. The questionnaire has been developed by our research team. The final version of the questionnaire included 10 items scored on a Likert scale (*Supplement* 1 and 2) and was validated using 285 samples from capital cities of six provinces

including Fars, Kerman, East Azerbaijan, West Azerbaijan, Ardabil, and Sistan and Baluchistan. The content validity ratio (CVR) and Item-level content validity index (I-CVI) were acceptable for all 11 items. The mean CVI for the entire scale S-CVImean (i.e., the mean of all I-CVIs) was equal to 0.977; and scale-level CVI based on the universal agreement method (S-CVI/UA) was 0.9. Also, the Cronbach's alpha was 0.81 [21].

The questionnaire consists of two sections: demographic and behavioral. The behavioral section comprises two parts: individual behavior and behavior of other people. The section on individual behavior measures the person's own travel behaviors during the COVID-19 pandemic and includes 6 questions scored on a Likert scale. The section on the behavior of other people measures travel behavior of others during the COVID-19 pandemic and includes 10 questions, four of which are scored on a Likert scale. In total, the questionnaire contains 10 questions on a Likert scale out of 16.

Sampling and data collection

A total of 589 individuals representing capital cities of six provinces were included in the study. They were selected using the cluster sampling method. Two to 10 clusters in each capital city (40 clusters in total) and 16 individuals in each cluster accounted for a total of 640 randomly selected individuals.

Two educated interviewers in each province conducted the questioning during two months. The population of the surveyed area was approximately 5.5 million people.

At the time of the study (May and June 2021), Iran experienced the fourth wave of the epidemic with nearly 300 daily deaths, on average. Most of the cities were on the red (very dangerous) or orange (dangerous) positions. The public vaccination had recently been initiated and a very low percentage of people had been vaccinated with two doses. Most cities were in the red (very dangerous) or orange (dangerous) positions. Vaccination of the population has recently begun, and a very small proportion of people have received two doses of the vaccine.

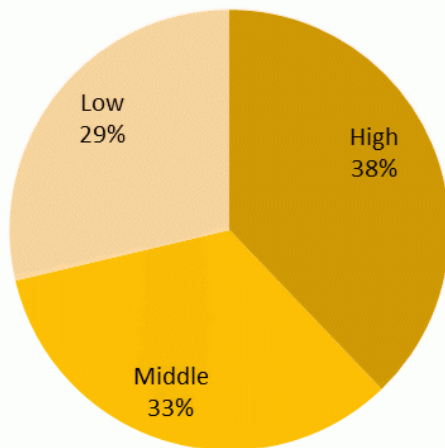**Figure 1. The map of Iran and studied provinces.**

Figure 2. Distribution of study population based on socioeconomic status.
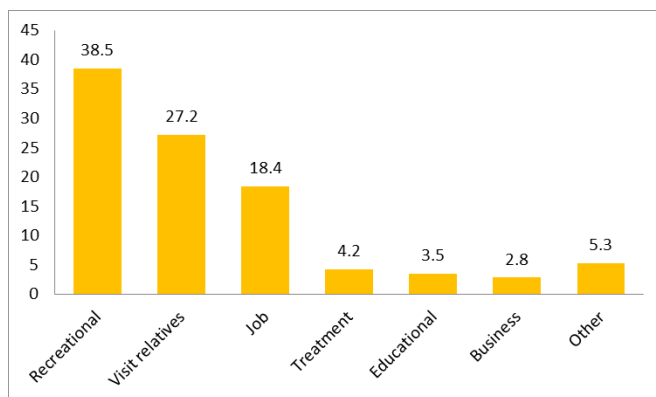

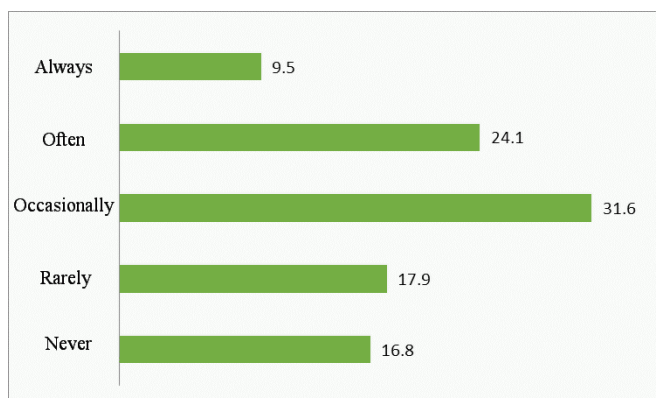**Figure 3**. Percentage distribution of travel purposes among the study population.

Figure 4. Percentage distribution of compliance with health protocols by the study population.

Ethical approval and consent to participate

This study was registered by the Ethics Committee of the National Institute for Medical Research Development with the approval ID of *IR.NIMAD.REC.1399.120*. Throughout the entire study process, our actions complied with the Declaration of Helsinki. Before que they were assured that the information obtained would remain confidential and would be used solely for research purposes.

Data analysis

For the analysis, the mean value of responses of each individual was calculated separately for every section (Individual Behavior and Behavior of Others). Therefore, two new variables were obtained and their correlation with contextual variables were investigated. The correlation of these new variables with categorical contextual variables was examined using Mann-Whitney and Kruskal-Wallis tests, depending on the variable type. To examine the correlation between these new variables and continuous variables, the Spearman's correlation coefficient was employed. Normal distribution of continuous variables was assessed using the Kolmogorov-Smirnov test. Multivariate analysis was conducted via multiple linear regression. The variables that were statistically significant in the univariate analysis at the level of $P<0.1$ were included into the ordinal regression model. Hence, we computed the behavioral index by categorizing responses in three groups including never or rarely (score range of 1 to 2), occasionally (scores of 2.1 to 3), and often or always (scores ranging 3.1 to 5). The data were processed using SPSS 16 and STATA 14.

Results

A total of 589 individuals from six provinces participated in the study. The response rate was 92% (589/640). Of all participants, 309 (52.5%) were women. The largest number of participants (142) was from East Azerbaijan province (24.1%), while the fewest participants (28) were from Sistan and Baluchistan (4.8%). The mean age of participants was 42.84 years (SD=16.59) with a minimum of 16 years and a maximum of 89 years. Of all participants, 355 people (60.3%) had a travel history during the COVID-19 pandemic, while 234 individuals (39.7%) had no travel history. The demographic characteristics of participants are presented in *Table* 1. According to the distribution of the study population based on socioeconomic status, it was shown that the highest percent belonged to the high level (*Figure* 2). The distribution of travel purposes findings determined that recreational travel has the highest percentage of travel among the study population (*Figure* 3). The findings showed that more than 34 percent of the study population stated that they "rarely" or "never" follow the health protocols (*Figure* 4).

The t-test was used to compare the mean age of participants based on their travel history. The results of this analysis showed that the mean age of people with a traveling history was 40.64 years while for those without traveling history, it was 46.41 years. This difference was statistically significant ($P<0.001$). Also, the results of the ANOVA test showed that people with more education traveled more than people with less education ($P<0.001$). The chi-squared test confirmed that the difference in traveling history between provinces was significant as well ($P<0.001$). Also, the χ^2 test showed that the share of people with no traveling history in East Azerbaijan was 74.6%, while in Sistan and Baluchistan it was 17.9%. Thy numbers for West Azerbaijan, Fars, Ardabil, and Kerman were 43.5%, 32.6%, 26.1%, and 22.4%, respectively. У detected no significant difference between traveling history and SES, gender, or occupation subgroups ($P>0.05$).

Among the people who reported traveling history, 34.6% undertook a journey lasting for four days or more, 68.3% traveled by private car, and 12.4% by plane. Most travelers had recreational purposes (38.5%), while only 2.8% traveled for business. The

cumulative number of travelers with the job, educational, business, and medical treatment purposes made up just 28.9% of the participants, and 39.7% of travelers stayed at the homes of their relatives and acquaintances during the trip. The results of the participants' travel details are summarized in *Table* 2.

The results of the descriptive analysis of questionnaire items are shown in *Table* 3.

Table 1. Demographic characteristics of study participants

Variable		Frequency	Percent
Travel history during COVID-19 pandemic	Yes	355	60.3
	No	234	39.7
Province	East Azerbaijan	142	24.1
	Ardabil	134	22.8
	Fars	132	22.4
	Kerman	107	18.2
	West Azerbaijan	46	7.8
	Sistan and Baluchistan	28	4.8
Gender	Female	309	52.5
	Male	255	43.3
	Missing	25	4.2
Socioeconomic status	High	219	37.2
	Medium	194	32.9
	Low	166	28.2
	Missing	10	1.7
Education	Illiterate	19	3.2
	1-6 years	54	9.2
	7-12 years	174	29.5
	Associate degree	58	9.8
	Bachelor's degree	181	30.7
	Master's degree	56	9.5
	PhD degree	17	2.9
	Missing	30	5.1
Job	Unemployed	23	3.9
	Self-employed	155	26.3
	Worker	14	2.4
	Housewife	151	25.6
	Employee	108	18.3
	Student	47	8.0
	Other	37	6.3
	Missing	54	9.2

Table 2. Travel details of study participants

Variable		Frequency	Percent
Travel duration	1 day	80	31.1
	2 days	42	16.3
	3 days	46	17.9
	4 days or more	89	34.6
Vehicle used for travel	Personal car	198	68.3
	Airplane	36	12.4
	Bus	33	11.4
	Rental car	11	3.8
	Train	7	2.4
	Minibus	5	1.7
Purpose of travel	Recreational	109	38.5
	To visit relatives	77	27.2
	Job	52	18.4
	Medical treatment	12	4.2
	Educational	10	3.5
	Business	8	2.8
	Other	15	5.3
Place to stay during travel	Relatives' home	48	39.7
	No place to stay due to trip shortness	28	23.1
	Hotel, inn, rental home, etc.	17	14.0
	Institutional accommodation	7	5.8
	Other	21	17.4

The mean value of participants' responses was calculated for each section (Individual Behavior and Behavior of Others), and two new variables were created as a representative of the questions in that section, and their correlation with contextual variables was assessed. The results of t-test to compare the means of behavioral sections showed that, the mean (SD) for the individual behavior section was 3.39 (0.86), and for the behavior of others section it was 1.61 (1.05) (ranging 1-5); the difference was statistically significant (P<0.001).

Based on the ordinal regression, significant relationships were observed for variables of gender, education, and provinces (p<0.05) (*Table* 4).

Discussion

This study was conducted to measure and evaluate the level of compliance with health protocols for the prevention of COVID-19 during travel using a valid and reliable tool. Given that the sample was randomly selected, the results of the study can be generalized to the entire population of the country.

Of all participants, 355 (60.3%) had a travel history during the COVID-19 pandemic, and only 234 (39.7%) had no travel history. Despite ongoing educational measures on how to prevent diseases using several means, especially avoiding unnecessary travel, it seems that this percentage of travel history (60.3%) is much higher than expected during the COVID-19 epidemic. This is at a time when the country has imposed various travel restrictions, and even during the waves of the disease, these restrictions were strict and there were large financial penalties. Since many establishments and activities such as schools, universities, sports competitions, congresses, etc. were closed or canceled, working from home replaced physical presence, and meetings and classes were held online, it was expected that the number of necessary work-related and educational trips would be much smaller.

A high percentage of participants (65.7%) reported that the purpose of their trip was leisure and family gatherings. This shows that people did not follow the avoidance of unnecessary travel as one of the most important prevention protocols very well. In a study by Horváth and Lopatny, which aimed to examine tourism safety, including health safety, during the COVID-19 pandemic in Hungary, 69.3% of respondents indicated their travel motivation as recreational trips. In addition, 19.2% of them mentioned visiting relatives and friends as their travel motivation. Only 4.7% of participants indicated that their travel motivation was business or education [22]. A study by Abu-Rayash and Dincer, which was conducted in different cities in several countries, showed that population mobility and the number of trips in all the cities studied decreased sharply due to the COVID-19 pandemic [23].

In the current study, travel history varied significantly across the studied provinces. The highest share of the population (79.6%) in East Azerbaijan and the lowest proportion (17.9%) in Sistan and Baluchistan had no travel history during the COVID-19 pandemic. One of the reasons may be the difference in the numbery and quality of COVID-19-related trainings in local media. It is likely that the more effective and better the training on COVID-19 prevention protocols, the higher the compliance with the protocols.

A significant association was found between travel history and the age of the participants. The mean age of people with a travel history was approximately six years younger than people without travel history. This means that young people traveled more during this period and followed the travel avoidance protocol less than

older adults. Similar results were found in another study confirming that older people were more health conscious when traveling than younger people [22].

We found a significant direct association between travel history and education, such that people with higher education levels traveled more during the COVID-19 pandemic. In contrast, another study showed that people with higher education were more health conscious when traveling [22]. We observed no significant associations of travel history with SES levels or different jobs. This shows that adherence to the protocol of avoiding unnecessary travel was similar among different SES groups.

In our study, 68.3% of people who had a travel history used a private car. Similarly, a study by Torrisi et al. in Italy showed that most people preferred to travel by private car during the COVID-19 pandemic [24]. In a study in Chicago, USA, 86% of people said that traveling by private car was a low-risk or very low-risk way to travel [25]. In our study, a total of 87.6% used land transportation, while 12.4% traveled by aircraft. In the pre-COVID-19 era, 92% of transportation flows in Iran were by land and only 8% by air; hence, the use of airplanes increased from 8% to 12.4% during the COVID-19 pandemic. This may be due to concerns about staying on trains and buses with high passenger density for a long time, which would increase the chance of contact with others and disease transmission. A study conducted in Seoul, South Korea, showed that travel behavior has changed due to COVID-19: public transportation users switched to private car mode [26].

Table 3. Frequency and percent of options of each question

Sections	Questions	Answer options	Frequency	Percent
Individual behavior	Q1-1. When traveling by car, I follow the health protocols related to the prevention of coronavirus disease (COVID-19) at the gas station and when filling the gas tank.	Never	11	3.4
		Rarely	23	7.0
		Occasionally	30	9.2
		Often	56	17.1
		Always	207	63.3
	Q1-2. I try to avoid traveling to high-risk cities and places (red zones) declared by the National COVID-19 Headquarters.	Never	37	11.1
		Rarely	34	10.2
		Occasionally	43	12.9
		Often	60	18.0
		Always	160	47.9
	Q1-3. I warn people who do not wear masks or do not observe health protocols when traveling by public transport during the COVID-19 pandemic. I warn people who do not wear masks or do not follow the health protocols when traveling by public transportation during the COVID-19 pandemic.	Never	83	26.8
		Rarely	83	26.8
		Occasionally	60	19.4
		Often	32	10.3
		Always	52	16.8
	Q1-4. If I experience any suspicious symptoms of COVID-19 during my trip, I immediately go to the first medical center/ward for testing.	Never	43	15.8
		Rarely	42	15.4
		Occasionally	38	13.9
		Often	49	17.9
		Always	101	37.0
	Q1-5. Due to unfavorable economic conditions, I was unable/unwilling to pay for a full compartment when traveling by train and for a neighboring seat when traveling by bus to maintain physical distancing.	Never	94	45.0
		Rarely	33	15.8
		Occasionally	19	9.1
		Often	27	12.9
		Always	36	17.2
	Q1-6. After arriving at my destination, due to the Covid-19 pandemic, I take time for personal quarantine to avoid contact with people.	Never	94	35.5
		Rarely	54	20.4
		Occasionally	46	17.4
		Often	31	11.7
		Always	40	15.1
Behavior of others	Q2-1. Transportation authority implement or monitor COVID-19 related health protocols on highways, within municipalities, in terminals, etc.	Never	99	24.4
		Rarely	102	25.1
		Occasionally	98	24.1
		Often	82	20.2
		Always	25	6.2
	Q2-2. Passengers comply with COVID-19 related health protocols.	Never	76	16.8
		Rarely	81	17.9
		Occasionally	143	31.6
		Often	109	24.1
		Always	43	9.5
	Q2-3. Traffic police warn passengers or drivers if they notice non-compliance with COVID-19 related health protocols.	Never	132	32.4
		Rarely	108	26.5
		Occasionally	78	19.1
		Often	57	14.0
		Always	33	8.1
	Q2-4. Driver and driver assistant warn passengers if they notice non-compliance with health protocols.	Never	128	30.8
		Rarely	103	24.8
		Occasionally	100	24.1
		Often	44	10.6
		Always	40	9.6

Table 4. Results of ordinal regression to determine effective factors of behavior in the studied population

		Estimate	SE	p	95% Confidence interval	
					Lower boundary	Upper boundary
Age		0.007	0.009	0.453	-0.011	0.025
Socioeconomic status	High	-0.243	0.309	0.433	-0.849	0.364
	Moderate	0.274	0.288	0.342	-0.291	0.838
	Low	0ᵃ	0	0	0	0
Gender	Male	-0.568	0.284	0.045	-1.124	-0.012
	Female	0ᵃ	0	0	.	0
Job	Unemployed	0.255	0.763	0.739	-1.242	1.751
	freelance job	0.045	0.620	0.942	-1.171	1.260
	manual worker	-0.581	0.882	0.510	-2.309	1.147
	housewife	-0.657	0.610	0.281	-1.852	0.538
	Employee	-1.126	0.617	0.068	-2.336	0.084
	Student	0ᵃ	0	0	0	0
Travel history	Yes	4.424	0.412	0.000	3.615	5.232
	no	0ᵃ	0	0	0	.
Education	Illiterate	-2.772	1.017	0.006	-4.765	-0.778
	1-6	0.126	0.781	0.872	-1.405	1.657
	7-12	-0.131	0.630	0.835	-1.366	1.104
	Associate degree	-0.876	0.678	0.196	-2.204	0.452
	Bachelor's degree	0.134	0.597	0.822	-1.036	1.305
	Master's degree	-0.351	0.653	0.591	-1.630	0.929
	PhD	0ᵃ	0	0	0	0
Provinces	East Azerbaijan	0.693	0.523	0.185	-0.331	1.717
	Fars	1.823	0.497	0.000	0.848	2.798
	Sistan and Baluchistan	1.113	0.659	0.091	-0.178	2.405
	Kerman	1.352	0.508	0.008	0.357	2.347
	Ardabil	1.420	0.498	0.004	0.444	2.397
	West Azerbaijan	0ᵃ	0	0	0	0

Regarding the place of accommodation while traveling, the study results showed that approximately 40% of travelers stayed at the homes of relatives and friends. This situation may lead to an increased chance of contact and disease transmission. Other studies have shown that the fear of COVID-19 transmission greatly affected the reduction in hotel occupancy rates [27]. In addition, travel has become one of the main factors in the spread of COVID-19 worldwide [28, 29].

The mean scores for the questions on individual behavior and the behavior of others were 3.39 and 1.61, respectively. Both of these scores ranged from 1 to 5, and the observed difference was statistically significant. This means that the participants stated that their compliance with the protocols was better than compliance of others. It is likely that the respondents did not answer the questions related to themselves quite honestly, and there may be a prestige bias; hence, they could easily overestimate their behavior regarding the compliance with health protocols while traveling. We therefore think that the results of others' behavior regarding the compliance with health protocols are closer to reality.

One of the limitations of our research is related to the possibility of social desirability bias, which may have occurred in our study.

Conclusion

The results of the study showed that during the COVID-19 pandemic in Iran, unnecessary travel was not avoided. Although travel restrictions and compliance with health protocols during travel were among the major strategies to control COVID-19, most study participants who traveled during the COVID-19 pandemic did not comply with the relevant protocols. Therefore, we need to consider some important issues such as cultural factors, varying levels of risk tolerance among the human population, law enforcement measures, and more serious monitoring by policymakers.

Ethical approval

All procedures performed in the studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. This study has been registered by the Ethics Committee of the National Institute for Medical Research Development with the following approval ID: *IR.NIMAD.REC.1399.120*. Before questioning, the objectives of the study were clarified to the participants, verbal consent was obtained from all participants, and they were assured that the information obtained would remain confidential with the research team and would be used exclusively for research purposes.

Conflict of interest

The authors declare that they have no competing interests.

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[Supplement 1](#). English version of travel questionnaire

Question	Not Applicable	Never	Rarely	Occasionally	Often	Always
Q15-1: When traveling by car, I follow the health protocols related to the prevention of coronavirus disease (COVID-19) at the gas station and when filling the gas tank.						
Q15-2: I try to avoid traveling to high-risk cities and places (red zones) declared by the National COVID-19 Headquarters.						
Q15-3: I warn people who do not wear masks or do not follow the health protocols when traveling by public transportation during the COVID-19 pandemic.						
Q15-4: If I experience any suspicious symptoms of COVID-19 during my trip, I immediately go to the first medical center/ward for testing.						
Q15-5: Due to unfavorable economic conditions, I was unable/unwilling to pay for a full compartment when traveling by train and for a neighboring seat when traveling by bus to maintain physical distancing.						
Q16: After arriving at my destination, due to the Covid-19 pandemic, I take time for personal quarantine to avoid contact with people.						

Question	Never	Rarely	Occasionally	Often	Always
Q17-1: Transportation authority implement or monitor COVID-19 related health protocols on highways, within municipalities, in terminals, etc.					
Q17-2: Passengers comply with COVID-19 related health protocols.					
Q17-3: Traffic police warn passengers or drivers if they notice non-compliance with COVID-19 related health protocols.					
Q17-4: Driver and driver assistant warn passengers if they notice non-compliance with health protocols.					

Supplement 2

بسمه‌تعالی

استان: .... منطقه: SES بالا ☐ SES متوسط ☐ SES کم ☐ کد خانوار: .... کد پرسشنامه: ....

دوست گرامی
پرسشنامه حاضر به‌منظور انجام یک طرح تحقیقاتی برای بررسی وضعیت رعایت پروتکل‌های بهداشتی در مسافرت و در اپیدمی بیماری کرونا (کووید-19) طراحی شده است. نتایج حاصل از این تحقیق برای برنامه‌ریزی، کنترل و پیشگیری از بیماری استفاده خواهد شد. مشارکت شما در این طرح اختیاری است و در هر زمان که تمایل به ادامه پاسخ به سؤالات را نداشته باشید می‌توانید ادامه ندهید. در صورت مشارکت، از شما خواهشمندیم با پاسخ‌های صادقانه خود ما را در این کار یاری فرمایید. ضمناً این پرسشنامه بی‌نام‌ونشان بوده و پاسخ‌های شما به‌صورت محرمانه در نزد گروه تحقیق می‌ماند. پیشاپیش از همکاری شما کمال تشکر را داریم.

با تشکر

اطلاعات زمینه‌ای و فردی:

سن: .... سال **جنسیت:** مرد ☐ زن ☐
تحصیلات: 1-بی‌سواد ☐ 2- حداکثر تا 6 کلاس سواد ☐ 3- 12-7 کلاس سواد (حداکثر دیپلم) ☐ 4-کاردانی ☐ 5- کارشناسی ☐ 6- کارشناسی ارشد ☐ 7- دکتری و بالاتر ☐
شغل: بیکار ☐ آزاد ☐ کارگر ☐ خانه‌دار ☐ کارمند ☐ دانش‌آموز یا دانشجو ☐

همیشه	اغلب اوقات	گاهی اوقات	به‌ندرت	هرگز	موردی ندارد	سؤالات	ردیف	حیطه
						چنانچه در طول دوره اپیدمی کرونا (کووید-19) به **مسافرت (بین‌شهری داخل کشور یا خارج از کشور)** رفته‌اید با در نظر گرفتن آخرین مسافرت خود و بر اساس تجربه شخصی خویش، پاسخ مناسب را برای موارد زیر انتخاب نمایید.	15	سؤالات رفتاری شخص شما
☐	☐	☐	☐	☐	☐	در هنگام مسافرت با خودروی شخصی، پروتکل‌های بهداشتی مرتبط با پیشگیری از ابتلاء به بیماری کرونا (کووید-19) را در ایستگاه پمپ‌بنزین و در هنگام پر کردن باک بنزین رعایت می‌کنم.	15.1	
☐	☐	☐	☐	☐	☐	سعی می‌کنم به شهرها و مکان‌های پرخطر (مناطق قرمز) اعلام‌شده از سوی ستاد ملی مقابله با کرونا (کووید-19) مسافرت نکنم.	15.2	
☐	☐	☐	☐	☐	☐	من در طول مسافرت با وسایل نقلیه عمومی در شرایط اپیدمی کرونا (کووید-19) به افرادی که از ماسک استفاده ننموده و یا پروتکل‌های بهداشتی را رعایت نمی‌نمایند، تذکر می‌دهم.	15.3	
☐	☐	☐	☐	☐	☐	اگر در حین مسافرت علائم مشکوک بیماری کرونا (کووید-19) داشته‌ام سریعاً به اولین مرکز یا واحد بهداشتی یا درمانی جهت بررسی‌های لازم مراجعه نمودم.	15.4	
☐	☐	☐	☐	☐	☐	من به دلیل شرایط نامناسب اقتصادی نتوانستم/ نخواستم در هنگام سفر با قطار هزینه یک کوپه کامل و در هنگام سفر با اتوبوس هزینه صندلی مجاور خود را جهت حفظ فاصله فیزیکی بپردازم.	15.5	
☐	☐	☐	☐	☐	☐	پس از رسیدن به مقصد به علت اپیدمی بیماری کرونا (کووید-19) زمانی را جهت قرنطینه شخصی و عدم ارتباط با مردم در نظر گرفتم.	16	

همیشه	اغلب اوقات	گاهی اوقات	به‌ندرت	خیر	سؤالات	ردیف	حیطه
					درمجموع با توجه به تجربیاتی که از مسافرت‌های خود و یا نزدیکان خود با وسیله نقلیه عمومی از قبیل؛ اتوبوس، مینی‌بوس و قطار داشته‌اید نظر خود را با انتخاب گزینه مناسب برای هر یک از موارد زیر معین نمایید.	17	سؤالات رفتاری سایرین
☐	☐	☐	☐	☐	مسئولین حمل‌ونقل (مانند راهداری، شهرداری پایانه‌ها) پروتکل‌های بهداشتی مرتبط با بیماری کرونا (کووید-19) را اجرا می‌کنند و یا بر حسن اجرای آن نظارت کافی دارند.	17.1	
☐	☐	☐	☐	☐	مسافران نکات بهداشتی مرتبط با بیماری کرونا (کووید-19) را رعایت می‌کنند.	17.2	
☐	☐	☐	☐	☐	پلیس‌راه و راهور در صورت مشاهده عدم رعایت نکات بهداشتی مرتبط با بیماری کرونا (کووید-19) توسط مسافران و یا راننده، رعایت نکات بهداشتی را تذکر می‌دهند.	17.3	
☐	☐	☐	☐	☐	راننده و کمک‌راننده در صورت مشاهده عدم رعایت نکات بهداشتی توسط مسافران، رعایت نکات بهداشتی را تذکر می‌دهند.	17.4	