

ORIGINAL ARTICLES

People's access to information and the practice of COVID-19 prevention during the first lockdown period in Hanoi in april, 2020

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ABSTRACT

Objectives: To describe people's access to information and the practice of COVID-19 pandemic prevention during the first lockdown in the period from 7th to 30th April.

Methods: A descriptive cross-sectional study was conducted among 319 subjects through a convenient sampling procedure. Online self-administered questionnaires through social networks including Facebook, Zalo, etc were used. Descriptive statistics were used to present the data using mean, frequency and percentage.

Results: The most popular information channels which people in urban and rural areas regularly accessed for COVID-19 related information were television and radio (55.6% and 72.7% respectively). The sources of information that the highest percentage of people accessed was the Government's /Ministry of Health's SMS, followed by social media. People were most interested in searching for information about "Evolution of the epidemic COVID-19" and the least interested in the information about "Prevention according to folk beliefs and methods". Proactive prevention practices were well implemented during the first lockdown such as "Wear a mask properly" with 99.1%, followed by "Minimize going to the street except in necessary cases" (98.8%) and "Stop non-urgent activities, work from home when needed" with 98.8%. The proportion of people who practiced "Clean the surface of objects with an antiseptic solution" was the lowest at 87.5%.

Conclusion: Mass media and the Government information source are regular users to access information by respondents. Therefore, the information channel and source should be taken into account for health education in general and Covid -19 prevention in particular.

Keywords: COVID-19, information, prevention.

INTRODUCTION

A new strain of the virus that emerged in December 2019 in Wuhan-China has erupted into a pandemic acute pneumonia called COVID-19, raising a great concern not only in China but around the world (1). According to the report on November 9th, 2020, the total number of people diagnosed with COVID-19 was 50,266,033 out of 219 countries and territories, of which 1,254,567 people died

(2). In Vietnam, on November 9th, 2020, Vietnam had recorded 1215 cases of infection, including 1087 recovered cases and 35 dead tolls (3). Lack of knowledge about COVID-19 prevention is one of the causes of serious consequences during the pandemic (4) (5) (6). Acquiring and understanding correct and sufficient disease prevention information through the formal channels are among strategic approaches to disease prevention and control (7) (8). Vietnam has taken many strategies



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to prevent the spread of COVID-19, such as implementing large-scale communication or applying social distancing when necessary (9). The reasons for Vietnam's success in the COVID-19 epidemic prevention are the good control and coordination of the Government at the beginning of the pandemic; Vietnam was one of the first countries to apply social distancing during the pandemic. Specifically, the first phase took place for two weeks in April 2020 in Hanoi (10). At the same time, people accessed timely information and well implement preventive practices (11). It is necessary to study the implementation of preventive practices aiming to have more evidence for future effective preventive interventions. The objective of the study was to describe the access to COVID-19 preventive information and practices during the first lockdown in the period from 7th to 30th April in 2020.

METHODS

Study design: The design of this study was a cross-sectional study using a quantitative method.

Study location and time

Research period: It was conducted from April 2020 to June 2020

Data collection period: Data were collected during the first lockdown in Hanoi from April 7th to April 21st, 2020.

Study location: Social networking sites including Facebook and Zalo.

Study subjects

Vietnamese using social networking sites during the period of the first lockdown from April 1st, 2020 to April 30th2020 were invited to the study.

Participants were required to have an internet connection, voluntarily respond to an online questionnaire, and be able to read, understand, and answer the questions provided.

Sample size and sampling

Sample size: The sample was estimated based on the WHO formula for estimating one population proportion with an absolute:

$$n = Z^2_{(1 - \alpha/2)} \frac{p(1-p)}{d^2}$$

This study used the WHO formula for estimating one population proportion in which $p=0.347$ was the proportion of people who took prevention practices (in this study we used the percentage of Japanese people who fully took 5 personal backup actions); absolute precision of 0.06 and level of significance of 5% (22). The necessary sample size was 242 people. The sample size then was added 20% for the non-response rate. The final sample size was 292 people. However, the number of people who responded was 319.

Sampling

Since the study was conducted during the first lockdown in Hanoi, convenient sampling was used. Online questionnaires were posted by the research team on social networks including Zalo and Facebook and social media users were invited to fill in the questionnaires. The participants introduced their acquaintances/ friends to participate in the study. Finally, 319 respondents returned the filled questionnaires.

Data collection and tools

Online self-administered questionnaires were developed on Google Drive tools. The questionnaires were based on the Government's recommendations for COVID-19 prevention and control. The questionnaire consisted of 3

main parts: general information; information access (channels and sources) and COVID-19 prevention practices.

Statistical analysis

The data were archived then checked, cleaned and analysis using STATA 14.0 software. Descriptive statistics were used to present the data using mean, frequency and percentage.

Research ethics

Research's objectives were informed for participants at the beginning of the questionnaire's form. Respondents' personal information was kept confidential and only used for research purposes.

RESULTS

Table 1. General Information

	Characteristics (n=319)	n	%
Sex	Female	198	62.1
	Male	121	37.9
Age	< 25	246	7.1
	25-20	65	20.4
	>50	8	2.5
Mean \pm SD 23.8 \pm 7.4			
Jobs	Students	233	73.0
	Freelance	70	22.0
	Retired / homemaker / unemployed	10	3.1
	Work for the agency / organization	6	1.9
Accommodation	Urban	169	53.0
	Rural	150	47.0

Among 319 participants, 77.1% of them were under 25 years old, 20.4% of them were from 25 to 50 years old and the rest was over 50 years old. There was 198 females which accounted for 62.1%. The majority

of participants were students (73.0%), flowing was freelancers with 22.0%. The percentages of participants living in urban and rural areas were 53.0% and 47.0%, respectively.

Table 2. The channels to search information during the first lock-down by areas and frequency

Channels/ sources of information	Urban (n=169)			Rural (n=150)		
	Regularly %	Sometimes %	Never %	Regularly %	Sometime %	Never %
Information channels						
Television/ Radio	55.6	32.5	11.9	72.7	24.0	3.3
Electronic-Journal (Vietnam express, Vietnam.net, Kenh14..)	37.3	50.3	12.4	34.7	53.3	12
Science-Journal	18.9	50.9	30.18	16.7	54.0	29.3
Sources of information						
Formal						
Website of the Ministry of Health Government	56.2	25.4	18.4	57.3	35.3	7.4
SMS/Ministry of Health and NCOVI Application	78.7	18.3	3.0	79.3	18.7	2.0
Informal						
Relatives, friends, neighbors	19.53	63.31	17.16	32.0	50.0	18.0
Social media	69.2	26.6	4.2	69.3	27.0	3.7

The table 2 showed the proportion of people who accessed information about COVID-19 by areas and frequency. In terms of information channels, the percentage of people who regularly accessed information about COVID-19 through Television/ Radio channels ranked first in both urban and rural areas with 72.7% and 55.6%, respectively; followed by Electronic- Journal with 37.3% and 34.7%, respectively and the lowest was the Science-Journal with 18.9% and 16.7%, respectively.

The highest proportion of participants accessed sources of information about COVID-19 in both urban and rural areas was the Government SMS/ Ministry of Health and NCOVI Application with 78.7% and 79.3% respectively, followed by Social media with 69.2% and 69.3%, respectively. The proportion of accessing the Website of the Ministry of Health ranked in the third with 56.2% in urban areas and 57.3% in rural ones. The proportion of rural relatives, friends and neighbors accessing Covid 19-related information was 32.0%, higher than that of urban people (19.53%).

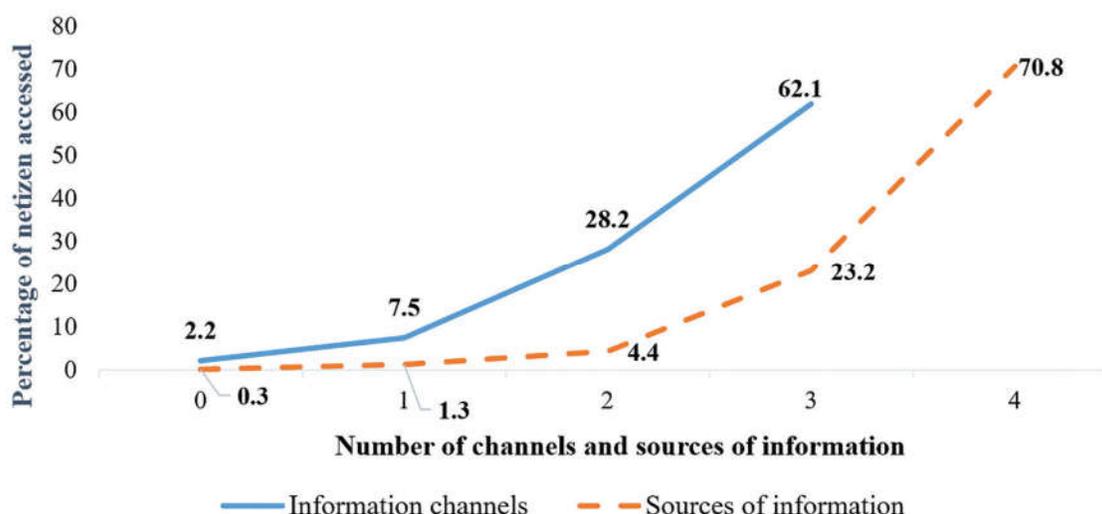


Figure 1. The proportion of participants accessing information by the number of information channels and sources

Regarding the number of information channels, 62.1% of people accessed to COVID-19 information through all 3 channels, which marked the highest percentage. Meanwhile, only 28.2% searched for this news through 2 channels.

Regarding sources of information, the proportion of people who accessed all four sources ranked first with 70.8%, followed by the figure for three sources (23.2%).

Table 3. COVID-19 information content that participants was interested in by areas

Information about the COVID-19	Urban (n=169)		Rural (n= 150)	
	n	%	n	%
COVID-19 statistics				
Information on new cases, existing cases, recovery from illness, death (who, where, how)	169	100.0	149	99.3
Evolution of the epidemic (epidemic outbreak area, peak period, epidemic end)	169	100.0	149	99.3
Methods of detecting COVID-19 disease (Symptoms of the disease, rapid test kit ...)	162	95.9	142	94.7
Prevention of COVID-19				
How to prevent COVID-19 as recommended by the Ministry of Health and the Government (wear a mask correctly, washing hands, increase resistance, limit contact ...)	167	98.8	149	99.3

How to prevent and treat COVID-19 according to folk beliefs and methods (eating eggs, drinking alcohol ...)	71	42.0	72	48
Rules and policies relating to COVID-19				
Government regulations during the pandemic (health reporting, social isolation, penalties for spreading fake news ...)	164	97.0	145	96.7
Economic information during the pandemic (employment, product market prices, the state's ability to respond to the economy of diseases ...)	160	94.7	141	94.0
Domestic and foreign political information	161	95.2	144	96.0
Infotainment, trends (good example, home exercise ...)	140	82.8	136	90.7

The information that both urban and rural people accessed most was “COVID-19 statistics” and the least was “how to prevent and treat COVID-19 according to folk beliefs and methods (eating eggs, drinking alcohol ...)”.

In terms of COVID-19 statistics, more than 99% of participants were interested in “Information on new cases, acquired, recovered, and fatal” and “Evolution of the epidemic”, followed by “Methods of

detecting COVID-19 disease.

In terms of the Prevention of COVID-1, almost all participants in urban and rural areas were interested in information sources from the Government from 98.8% to 99.3%.

In terms of “Rules and policies relating to COVID-19”, from 82.8 to 97% of participants in urban and rural areas were interested in that information.

Table 4. The preventive practices against COVID -19 of 319 participants during the first lockdown period in Hanoi

Practices	Take preventions				Without preventions	
	Proactive preventions		Passive preventions		n	%
	n	%	n	%		
Wear a mask properly	316	99.1	2	0.6	1	0.3
Wash your hands before touching your face	297	93.1	15	4.7	7	2.2
Wash hands before eating	298	93.4	14	4.4	7	2.2

Wash hands after contacting people	297	93.1	11	3.5	11	3.5
Clean the surface of objects with an antiseptic solution	279	87.5	25	7.8	15	4.7
Healthy diet	313	98.1	5	1.6	1	0.3
Do exercise	294	92.2	18	5.7	7	2.2
Drink a lot of water	303	95.0	13	4.1	3	0.9
Avoid close contact with people with flu symptoms	308	96.6	8	2.5	3	1.0
Minimize going to the street except in necessary cases	315	98.8	3	0.9	1	0.3
Do not gather more than 2 people outside of offices, schools, or hospitals	310	97.2	7	2.2	2	0.6
Keep a minimum distance from other people when talking 2 meters	300	94.0	14	4.4	5	1.6
Stop non-urgent activities, work from home when needed	315	98.8	3	0.9	1	0.3
Number of practices that individual implemented	Mean (SD) 11.7(0.9) Min; max: 0;12					

Proactive prevention: took preventive practices by participants but not other people or outside circumstances

Passive prevention: took preventive practices by other people or outside circumstances

The percentage of people implementing preventive practices during the first lockdown was very high, from 87.5 % to 99.1% in which “Wear a mask properly” was implemented with the highest percentage while “Clean the

surface of objects with an antiseptic solution” was implemented with the lowest percentage. The other practices such as “handwashing”; “keep a minimum distance from other people”; “avoid close contact with people with flu symptoms”; “do not gather more than 2 people outside of offices”,... ranked in between 92.2% and 98.8%.

The average number of types of practices that individuals implemented during the first lockdown in Hanoi was 11.7.

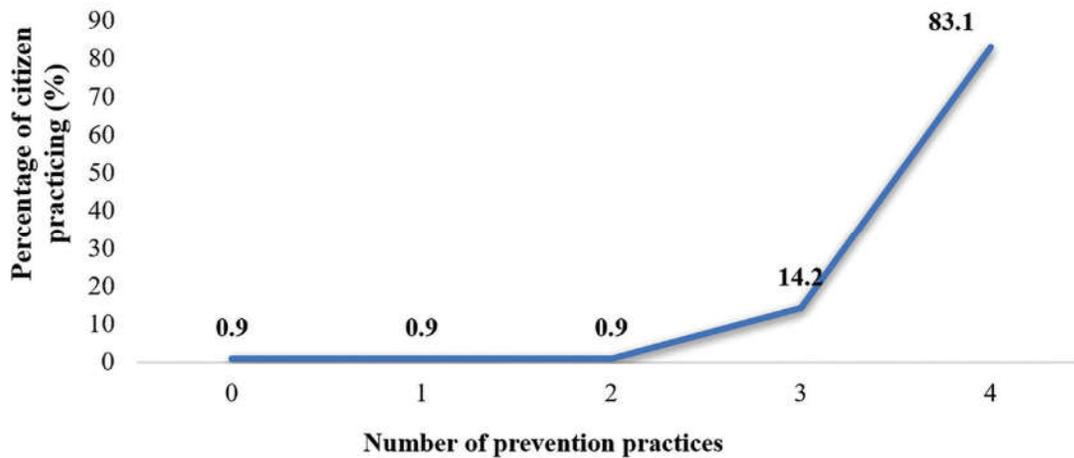


Figure 2. Percentage of people implemented the recommended practices by number of practices**

****:** *Up to now the government required people to implement 5K (5 main practices for prevention). However, during the study time, the government only recommended 4 main practices including Wearing a mask- Disinfection- Keep a distance- Avoid crowds and gatherings. Therefore, the figure only provided the data for 4 main preventive practices (health declaration was not in the recommended lists).*

The Figure 2 showed the percentage of respondents who implemented all four government- recommended preventive practices was the highest one with 83.1%. Meanwhile, only 14.2% took three individual precautions.

DISCUSSION

This was a cross- sectional descriptive study was conducted on 319 people to describe the information access and practices to prevent COVID-19 infection during the first lockdown period in April 2020. The results showed the evidence on sources and type of information, and preventive practices among respondents.

Information channels

Among study subjects, the proportion of people who regularly got access to COVID-19 information via television and radio ranked first in both rural and urban areas with 72.7% and 55.6% respectively, which was followed by the electronic- journal sources (53.5% and 50.3%, respectively). The result of this study showed that people tended to approach to media in the digital age. It presented that accessing information by text message was quite popular in Vietnam. According to an Appota report, the proportion of Vietnamese mobile subscribers in early 2020 was 150 million mobile devices that is equivalent to 70% of Vietnamese citizens (12). Accessing information via mobile phone text messages is regarded to be fast, timely, and effective and it is considered as a reliable communication tool for public health purposes (13) particularly because of the potential to customize messages to meet individuals' needs. However, using text messaging to send personal health information requires analysis of laws addressing the protection of electronic health information., The Health Insurance Portability and Accountability Act (HIPAA. Mass media channels through social networks and via television and radio are also accessed at a high rate. This result was

consistent with other studies in Vietnam on the access to messages on non-communicable disease prevention, which had shown that the rate of access to information through information channels such as television was 67.4% (14).

Information sources

The research results showed that the Vietnamese Government has been very proactive in conducting regular communication about COVID-19 through the channels that people are most likely to access (SMS by phone). Therefore, it could be considered as one of the ways to raise people's awareness about COVID-19 preventions and then they could practice preventive behaviors in the community. In the sources of information, information pages of the Ministry of Health were approached most often by people, followed by social networks. Our research results illustrated that Vietnamese people had high access to information provided by the Government, which was higher than the figure of a study on media access related to COVID-19 in the UK (15). This could be understood that in the COVID-19 pandemic, the Government provided information for their citizens in a very timely and sufficient way. Research has shown that the information channel from the Government/ Ministry of Health had been the most popular source with constantly updated information (16) and the channel from the Vietnamese Government provided fast and accurate information (9). According to a survey by Dalia Research, Vietnam was the country with the highest satisfaction and confidence in the Government's response to the epidemic (62%) (17). The information channels that research subjects searched for with the lowest percentage were from relatives, friends, and family (25.7%), lower than similar channels in the UK (32%) (15). The research results were appropriate because the study was conducted during the social distancing period. Therefore, the contact

and exchange of information were probably within the family scope. "New, existing, cured and fatal cases" and "disease ongoings" were on top of searching while treatment information was searched the least. This result was similar to the result of a study in China (18). It showed that people were very concerned about prevention and government regulations introduced during the COVID-19 pandemic. People did not pay much attention to practical communication that they could perform themselves. Therefore, that treatment-related information was not paid much attention to is understandable. In the lack of the COVID-19 vaccine as well as fastly changed strains of COVID-19, prevention was the best measure to prevent the epidemic from widely spreading.

Implement the preventive practices

People's practices of wearing masks reached the highest rate (99.1%), followed by avoiding crowds, halting non-urgent activities and working from home when necessary with 98.8%. During the April peak epidemic in Hanoi, regulations that were well implemented had contributed to a significant reduction in the number of cases. The results of this study were similar to those in Anhui province, China, showing that wearing a mask is the most common practice (19). This was the most recommended practice of WHO as well as the Government of Vietnam that everyone needed to take to prevent from being affected (20). Research results showed that research subjects not only took one but combined many preventive measures. This combination was in full compliance with the COVID-19 prophylaxis recommendation (21). The individual prevention practices to limit going to the street except for essential cases (98.8%) in Vietnam were much higher than statistics in the UK (avoid crowded areas (52%)) and higher than that of Japan (only 29.6%) (19), (22). The

strict preventive practices might lead to a lower incidence of Vietnam than that of other countries. At the time when Vietnam implemented social distancing, the UK expressed their viewpoint to conduct “Community immunity”, so community prevention actions were not implemented on a large scale (23) and Japan did not implement social distancing (24). The study subjects complied with the regulations on disease prevention during the period of the first lockdown in Vietnam. This seems to be in line with research results on the COVID-19 information that are of their interests, specifically preventions and government regulations. Perhaps the research subjects had a strong belief in their Government’s preventive regulations and guidance and they were very proactive in taking those as a result. That Participants had regular access to information and implemented preventive practices at multiple levels was the basis for Vietnam to prevent the disease in an effective way. Research on people’s current access to COVID-19 news and related preventive practices provided useful information for Covid 19 prevention practices in the community. However, there were still limitations. Small sample size and convenient sampling limited the study results to only study subjects and not representative of the broader community. The self-reported data collection methods might produce response bias such as recalled bias or social-desirability bias. However, this study provided preliminary information on how people sought COVID-19 related information and their preventive practices during the crisis which can be useful for future Government’s propaganda activities and further studies about related topics.

CONCLUSION

The highest percentage of respondents regularly used information channels were

Television and radio while information sources were Government SMS/Ministry of Health and NCOVI Application in both urban and rural areas. The most information content searched was disease prevention methods and Government regulations. The percentages of respondents who actively implemented the preventive practices were very high from 87.5% to 99.1%. The average number of practices implemented was 11.7. Therefore, mass media and the Government information source should be taken into account for health education in general and Covid -19 prevention in particular.

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