

Original Article

Developing a Questionnaire to Investigate the Reasons for Ignoring Home Quarantine by Some IraniansElham Nazari¹, Mohammad Hasan Shahriari², Hamed Tabesh^{1*}¹Department of Medical Informatics, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.²Department of Medical Informatics, Faculty of Medicine, Shahid beheshti University of Medical Sciences, Mashhad, Iran.

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ABSTRACT

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Background: The rapid outbreak of Coronavirus has led to the worrying situation. Prevention strategies such as a stay at home offer great opportunities for transmission reduction of the virus. Therefore, the purpose of current study has developed a questionnaire to investigate the reasons for not staying at home in Iran.

Methods: In this study a self-administered questionnaire was designed in two Delphi rounds and based on 50 expert and 10 expert opinions from different fields of study.

Results: In the first Delphi round 11 questions were obtained and in the second round 14 questions were confirmed. The mean of CVR and CVI for the questionnaire was 95.33 and 94.67, respectively. A questionnaire was designed and developed according to the purpose.

Conclusion: Using the designed questionnaire, the reasons why some people do not pay attention to home quarantine can be examined and solutions can be considered for them. This can prevent further corona spread.

Introduction

Coronavirus (COVID-19) is rapidly spreading throughout the world [1]. The virus outbreak has become a concerning issue all of world [2]. Coronavirus has infected more than 200 countries and more than 14 million people and killed more than 500000 people on 14 July 2020. There are 269,440 Coronavirus cases in Iran at the 14 July 2020 [3]. At the present there is no treatment for COVID-19 [4]. The coronaviruses speedily transmitted by people to people contact [5]. The spread of the infection suddenly leads to decline in health care delivery and decrease quality of care [6]. The rapid outbreak of coronavirus in Iran has also led to the worrying situation. Lack of medical resource, medical needs and Sanctions against Iran is a big challenge for coronavirus

diagnosis and care of patients. Also Iran is a threat to the Middle East because Iran is the center the coronavirus in the Middle East. In this regard control of viruses and transmission inhibition is a necessity [6, 7]. One of the interventions that can be applied is to reduce communication, stop working universities, schools and crowded place and organization, traveling forbid for avoiding contact with other people. Improvement in education also is an important action. The some recommendations of WHO for preventing coronavirus outbreak are frequent hand washing, Maintain social distancing, Avoid touching eyes, nose and mouth and Practice respiratory hygiene and staying at home [8,9]. Stay at home offer great opportunities for transmission reduction of the virus. But some people refuse to stay home. This

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stubbornness has some reasons. The purpose of the present study is to investigate the reasons for not staying at home based in Iran on peoples viewpoints. The present study is questionnaire development for this purpose.

Methods

This study was conducted in two Delphi phases. The first phase includes the design of the initial version of the questionnaire that a self-administered semi-structured questionnaire was designed. The primary version of the questionnaire was derived from interview with 50 experts. 50 professors and students of Mashhad University of Medical Sciences were interviewed. Their comments were collected. Comments were categorized, duplicate comments were removed. The final comments that was fully agreed between the two researchers were extracted and the kappa coefficient was 87%. In cases where there was disagreement in the third person for final approve. It was sent to

the second round and the suggestions of the experts were reviewed in the second round.

An expert panel with expertise in medical informatics, Biostatistics, Psychiatry and Social Medicine was recruited as content experts. They were professors from Mashhad University of Medical Sciences. Second round of Delphi were performed by 10 experts to ensure content validity and face validity of the questionnaire and for changing questions such as insert, delete and correct them. Content validity index (CVI) and content validity ratio (CVR) were calculated for each item separately.

The target questionnaire was closed-ended and responses determined based on the 5 Likert response, Strongly Disagree, Disagree, Undecided, Agree, Strongly Agree.

Results

Characteristic of the Delphi expert panels is observed in Table1.

Table 1: Characteristic of the Delphi expert panels.

Characteristic	Round 1(n=50)	Round 2 (n=10)
Gender, n (%)		
Male	15 (30%)	3 (30%)
Female	35 (70%)	7 (70%)
Work experience(year)		
< 5	25 (50%)	2 (20%)
> 5	25 (50%)	8 (80%)

At the Table1 shows, most of the participants in the first and second rounds of Delphi were female And most had work experience.

This study had two rounds of Delphi and the results of each round can be seen following.

Result of Delphi round1:

The initial proposed items include 11 questions in the first round and agreed percentage with each question can be seen in Table 2.

Table 2: Initial proposed items for investigating the reasons for ignoring some Iranian people to home quarantine

Table 1. Initial proposed items for investigating the reasons for ignoring some Iranian people to home quarantine

Items	Why people in combating with coronaviruses don't stay at home? (Reasons)	Agreement (%)
Q1	Due to the weak management of some managers, people do not trust their recommendations, such as staying home.	80%
Q2	People's livelihoods, and lack of government planning to support low-income groups make people don't stay home.	90%
Q3	Unclear accountability of events by some officials has made people not stay home.	80%
Q4	Persistence in rituals and beliefs has made people not stay at home.	90%
Q5	Lack of awareness and knowledge of people about the coronavirus has made people not stay home.	96%
Q6	False assurance as well as minimizing the risks has made people not stay home.	80%
Q7	The lack of community education for crises like this has made people not stay home.	94%
Q8	Opposing comments to scientific findings and evidence by some managers and professionals has made people not stay home.	82%
Q9	The sense of helplessness caused by the inability to control community conditions and repeated failures over time has made people not stay home.	80%
Q10	Failure to provide dissenting and critical comments has made people don't stay home.	76%
Q11	The lack of coordination between management levels and the lack of desirable cross-sector partnerships has made people not stay home.	74%

Result of Delphi round2:

The final version of the questionnaire items includes 14 questions and agreed percentage with each question can be seen in Table 3. In this

round, the validity and reliability were assessed. The minimum value for each item was at least 0.9. The mean of CVR and CVI for the questionnaire was 95.33 and 94.67, respectively.

Table3: The final items of investigating the reasons for ignoring some Iranian people to home quarantine.

Items	Why people in combating with coronaviruses don't stay at home? (Reasons)	Agreement (%)
Q1	Due to the weak management of some managers, people do not trust their recommendations, such as staying home.	90%
Q2	People's livelihoods, and lack of government planning to support low-income groups make people don't stay home.	100%
Q3	Unclear accountability of events by some officials has made people not stay home.	85%
Q4	Persistence in rituals and beliefs has made people not stay at home.	95%
Q5	Lack of understanding of the real situation of society in relation to the dangers and consequences of this disease has made people not stay home.	92%
Q6	Lack of awareness and knowledge of people about the coronavirus has made people not stay home.	100%
Q7	False assurance as well as minimizing the risks has made people not stay home.	84%
Q8	The lack of community education for crises like this has made people not stay home.	96%
Q9	Opposing comments to scientific findings and evidence by some managers and professionals has made people not stay home.	86%
Q10	Social capital (a good platform for the exploitation of human and material capital and a way to succeed) has made people not stay home.	80%
Q11	The habit of having multiple problems and challenges in the community has made the community insensitive, causing people not stay home.	90%
Q12	The sense of helplessness caused by the inability to control community conditions and repeated failures over time has made people not stay home.	87%

Q13	Failure to provide dissenting and critical comments has made people don't stay home.	80%
Q14	The lack of coordination between management levels and the lack of desirable cross-sector partnerships has made people not stay home.	80%

Conclusion

The questionnaire will be used to assess the reasons for non-compliance with home quarantine during the Corona outbreak of people involved. It can be used for the people of Iran. It can also be customized for the people of other countries. Accordance with the purpose of this study that investigate the reasons for not staying at home with the Iranian people, After the reasons have been identified, can encourage people to stay at home and follow up prevention approach to reduce transmission coronavirus.

The designed questionnaire can be customized to do research in this regard in other countries. Also can be used for discovering reasons. This study is the first study in Iran, and considered this problem.

Strengths of study:

Conduct a study based on two rounds of Delphi and use the opinions of experts in various fields is strengths of current study.

Limitations of study:

In some disciplines, only one expert was present, and perhaps using the opinions of several people could provide a more comprehensive analysis.

Competing interest statement: 'Declarations of interest: none'

Author Contributions: AC conceived and designed the study. AB conducted data gathering. C performed statistical analyses. ABC wrote the article.

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Data availability:In this study a self-structure questionnaire was developed and don't have data.

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